



# **NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY**

Venkatagirikote (P), Devanahalli (Tq),

Bangalore-562164

(An ISO 9001-2008 Certified Institution)

An Autonomous Institute, Affiliated to Visvesvaraya Technological  
University, Belagavi

Approved by AICTE, New Delhi



## **SELF STUDY REPORT**

November 2015

Submitted to  
National Assessment and Accreditation Council  
(An Autonomous Institution of the University Grants Commission)

# Self Study Report - 2015



NBA Accredited  
(An ISO 9001 - 2008 Certified Institution)  
Affiliated to Visvesvaraya Technological University (VTU)  
Recognised by Govt. of Karnataka & Approved by A.I.C.T.E., New Delhi

Ref. No. NCET 1651A/2015-16

Date: 05/11/2015

## DECLARATION BY THE HEAD OF THE INSTITUTION

I certify that the data included in this Self-Study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.

  
Signature of the Head of the institution

with seal:

Place: Bengaluru

Nagarjuna College of Engineering and Technology  
Mudugurki, Venkalagiri Kote Post, Devanahalli, Bengaluru-562110  
Front Office: 080-2764 5992 / 993. Principal: 080-27645990. Fax: +91-80 7645 990  
www.nagarjunaeeducation.com

# Self Study Report - 2015



## राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

### NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission

#### CENTRAL APPLICATION PROCESSING UNIT (CAPU)

NAAC/CAPU/SR/KACOGN24759/1<sup>st</sup> cycle /2015

15th June, 2015

The Principal  
Nagarjuna College of Engineering  
And Technology, Venkatagiri Kote Post,  
Devanahalli, Bangalore - 562164  
Karnataka

Dear Sir / Madam

Greetings from NAAC!

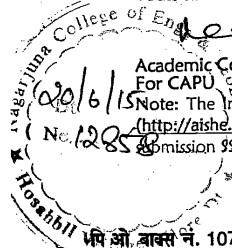
This has reference to your LOI bearing Track ID KACOGN24759 dated 4th June, 2015. As your LOI is accepted on 12th June, 2015, you are advised to proceed further for submission of SSR. Acceptance of your SSR is subject to strict adherence to the timelines and procedural formalities of NAAC as given below:

- Use the format "Manual for Self-Study Report- Affiliated/Constituent Colleges" available for download at [http://www.naac.gov.in/manuals\\_ass\\_accrd.asp](http://www.naac.gov.in/manuals_ass_accrd.asp).
- A soft copy of SSR complete in all respects must be uploaded on institutional website within Five months from the date of acceptance of LOI. After uploading SSR the concerned Regional Coordinator must be informed by e-mail and also through a letter, or else hard copies of SSR will not be accepted.
- The uploaded SSR must not be password protected and accessible online to all stakeholders till the completion of assessment and accreditation process by NAAC.
- Must submit five hard copies and one soft copy (CD) of SSR along with the applicable A&A fee to NAAC within six months from the date of acceptance of the LOI. Kindly note that hard copies of SSR/SAR should be submitted by post/ courier only. SSR/SAR will not be accepted by hand in NAAC office.
- There will be no relaxation in the time schedules for uploading SSR on the college website and submission of hard copies of SSR.
- Submit "Certificate of Compliance" (format enclosed) and the Declaration to be made by the Head of the Institution complete in all respects along with the SSR.
- Quote your assigned track ID KACOGN24759 in all your future correspondence with NAAC.
- "Only Government and Govt-Aided colleges covered under 2f and 12 B of UGC Act, 1956, and getting General development grants during XII Plan" are eligible for exemption of Accreditation fees subject to the production of valid documentary evidence. All other colleges have to pay the Accreditation fees as per the revised NAAC fees structure.

Please note that, if at any point of time while processing your application, NAAC finds that the information provided by the institution in the LOI, SSR or in the supporting documents is incorrect or misleading your application for assessment and accreditation will be rejected. NAAC will not be liable for the consequences arising out of such a rejection including refund of the fees or any other expenditure incurred by the institution in the process.

For any further clarification kindly log on to NAAC website [www.naac.gov.in](http://www.naac.gov.in) or contact the Help Desk Phone Numbers 080-23005192, 193 and may also contact through e-mail [capusouth@gmail.com](mailto:capusouth@gmail.com).

Yours sincerely



Academic Consultant  
For CAPU

Note: The institutions are hereby advised to upload "All India Survey of Higher Education" in MHRD website (<http://aishe.gov.in>) under intimation to NAAC with documentary proof of the Uploaded survey, at the time of submission SSR/RAR to NAAC.

NAAC File  
Raj. M.G.  
22.6.15

पि.ओ. बॉक्स नं. 1075, नागरभावी, बेंगलूर - 560 072, भारत P.O.Box No. 1075, Nagarbhavi, Bangalore - 560 072, INDIA

दूरभाष Phone : + 91-80-23005192, 93 Fax : +91-80-23210270

ई-मेल : e-mail : [naachelpdesk@gmail.com](mailto:naachelpdesk@gmail.com) वेबसाइट Website : [www.naac.gov.in](http://www.naac.gov.in)



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Ref. No. NCET 1652A/2015-16

Date: 05/11/2015

## CERTIFICATE OF COMPLIANCE

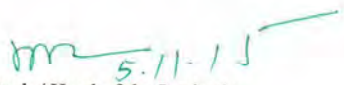
This is to certify that NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY fulfils all norms

1. Stipulated by the affiliating University and
2. Regulatory Council [AICTE] and
3. The affiliation and recognition is valid as on date.

In case the affiliation / recognition are conditional, then a detailed enclosure with regard to compliance of conditions by the institution will be sent.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

  
Principal / Head of the Institution

Place : Bengaluru

(Name and Signature with Office seal)

Nagarjuna College of Engineering and Technology  
Mudugurki, Venkatagiri Kote Post, Devanahalli, Bengaluru-562110  
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www.nagarjunaeducation.com

## ABBREVIATIONS

Abbreviations	Details
<b>AICTE</b>	All India Council for Technical Education
<b>ASHRAE</b>	American Society of Heating Refrigerating and Air Conditioning Engineers
<b>B.E</b>	Bachelor of Engineering
<b>BOS</b>	Board of Studies
<b>CBCS</b>	Choice Based Credit System
<b>CEO</b>	Chief Executive Officer
<b>CET</b>	Common Entrance Test
<b>CIE</b>	Continuous Internal Examination
<b>COMED-K</b>	Consortium Of Medical, Engineering And Dental Colleges of Karnataka
<b>CSE</b>	Computer Science & Engineering
<b>CSI</b>	Computer Society of India
<b>CV</b>	Civil Engineering
<b>ECE</b>	Electronics and Communication Engineering
<b>ERP</b>	Enterprise Resource Planning
<b>FDP</b>	Faculty Development Programme
<b>GD</b>	Group Discussion
<b>GOI</b>	Government of India
<b>GOK</b>	Government of Karnataka
<b>HOD</b>	Head of the Department
<b>IISc</b>	Indian Institute of Science
<b>IIT</b>	Indian Institute of Technology
<b>ISE</b>	Information Science & Engineering
<b>ISHRAE</b>	Indian Society of Heating Refrigerating and Air Conditioning Engineers
<b>ISO</b>	International Standards Organization
<b>ISRO</b>	Indian Space Research Organisation
<b>ISTE</b>	Indian Society for Technical Education
<b>KSCST</b>	Karnataka State Council for Science & Technology
<b>LMS</b>	Learning Management System
<b>M.Tech</b>	Master of Technology
<b>MBA</b>	Master of Business Administration

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<b>ME</b>	Mechanical Engineering
<b>MHRD</b>	Ministry for Human Resource Development
<b>MOU</b>	Memorandum of Understanding
<b>NBA</b>	National Board of Accreditation
<b>NCET</b>	Nagarjuna College of Engineering & Technology
<b>NES</b>	Nagarjuna Education Society
<b>NPTEL</b>	National Programme on Technology Enhanced Learning
<b>PCM</b>	Physics, Chemistry, Mathematics
<b>PG</b>	Post graduation
<b>PGCET</b>	Post Graduate Common Entrance Test
<b>Ph.D</b>	Doctor of Philosophy
<b>PTM</b>	Parent Teacher Meeting
<b>PUC</b>	Pre University Course
<b>R&amp;D</b>	Research & Development
<b>SEE</b>	Semester End Examination
<b>UG</b>	Under Graduate
<b>UGC</b>	University Grants Commission
<b>VGST</b>	Vision Group on Science and Technology
<b>VTU</b>	Visvesvaraya Technological University

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## **Preface**

Nagarjuna College of Engineering and Technology (NCET), a self financing engineering college, was started in the year 2001 under the aegis of Nagarjuna Education Society, Bangalore. Nagarjuna Education Society (NES) was established in 1995 under the able guidance of Sri J.V.Rangaraju, leading industrialist and philanthropist. His commitment towards contribution to nation building is being achieved by imparting world-class education at all levels, viz. from primary to post-graduate.

Nagarjuna College of Engineering & Technology is affiliated to Visvesvaraya Technological University (VTU), Belagavi, the only technological university in the state of Karnataka, recognized by Government of Karnataka and approved by AICTE, New Delhi. NCET has crafted the vision to be among the Top Engineering Colleges in Karnataka. All the strategies and policies that we plan have this over-arching goal as a guide. The college has very good infrastructural facilities and the people at NCET are among the best in their fields. The world is changing at exponential rate such that future is no more an extrapolation of the past and the present. It is important to be innovative to keep pace with the world. Science & technology have a great role to play in building India into a developed nation.

The Nagarjuna College of Engineering and Technology is strategically located on the Bangalore-Hyderabad National Highway, a road that falls on the Golden quadrangle. Its proximity to the International airport at Bangalore gives it strategic location and commutability. We have lush green campus spread of 72 acres with on-campus residential facility for boys, girls and staff. These hostels have amenities like mess, recreation room and state of art Gymnasium etc. Students are encouraged to actively participate in outdoor games as well. The college has a spacious library with well stacked books and well subscribed e-journals and books. The college is also a member of the VTU Consortium for e-resources.

The college is recognized as Nodal Center for virtual lab facility, sponsored by MHRD, GOI. The institution is associated with IIT B, Mumbai for the project titled eYantra on Robotic Technology for students and staff. ISRO has recognized our college as one of the center to carry out the student projects under STUDSAT. The institution also has MoUs with different leading industries like EMC<sup>2</sup>, Oracle, NCC, Data Talk etc.

## Self Study Report - 2015

The College was affiliated to Visvesvaraya Technological University, Belgaum till 2014-15. We have received Autonomous status from Visvesvaraya Technological University and Government of Karnataka from the academic year 2015-16. The college is recognized by Government of Karnataka as a Centre of Innovative Science and Engineering Education. The college started with three B.E. programmes and has grown to offer five B.E degree programmes, Five M.Tech programmes and MBA programme. Eight departments have been recognized as research centers from Visvesvaraya Technological University, Belgaum to offer Ph.D. programme. Three of our UG courses were accredited by NBA during 2009. We have applied to NBA for accreditation of our courses under Tier-2 as per NBA guidelines.

In addition, the college has also applied for accreditation to National Assessment and Accreditation Council (NAAC).

Nagarjuna College of Engineering & Technology also focuses on imparting training in soft-skills, logical reasoning, aptitude tests & interviews and provides placement to all eligible candidates in leading industries. The coordination & team work of all concerned at Nagarjuna Education Society and the commitment & determination of the management has made us to fulfill our vision “Leadership & excellence in education” and reach the goal.

\*\*\*\*

## **EXECUTIVE SUMMARY**



### ABOUT NAGARJUNA EDUCATION SOCIETY:

The **Nagarjuna Education Society** stands as an icon for enriching education, ethics and practical learning for the benefit of the society and the young aspiring students. The philosophy and its purpose are rendered in its identity, committing to leadership and excellence in education.

Foreseeing the necessity of professional academic educational facilities that are imbued in a strong value system, Nagarjuna Education Society was established in 1995, under the able guidance of its founder Sri. J V.Ranga Raju, leading industrialist and philanthropist. NES is today pursuing its mission with some of the finest facilities in Education-from primary school to professional education.

These institutions include, Nagarjuna Vidyaniketan, Nagarjuna Pre-University College, Nagarjuna College of Commerce and Management Studies, Nagarjuna College of Management Studies and **Nagarjuna College of Engineering & Technology**. Year after year, these institutions which are well-known for their professionalism, and strong value system, are fulfilling the Society Vision by discovering and developing the potentials of thousands of young minds to their perfection.

NES enjoys the patronage of Nagarjuna Construction Company, which is India's fast growing Construction Company, and second largest in terms of turnover, according to 'Construction World-NICMAR'. It's also the only construction company from India that found its place in the Forbes Asia list of 'Best under a Billion' in Asia Pacific.

### Institutions run by Nagarjuna Education Society

Sl. No	Institution	Year of Establishment
1.	Nagarjuna Vidya Nikethan	1995
2.	Nagarjuna P U College - Bangalore	2000
3.	<b>Nagarjuna College of Engineering &amp; Technology</b>	<b>2001</b>
4.	Nagarjuna Degree College – Yelahanka	2013
5.	Nagarjuna College of Management Studies	2015
6.	Nagarjuna P U College – Devanahalli	2015

### ABOUT THE INSTITUTION:

**Nagarjuna College of Engineering & Technology** has crafted the vision to be among the Top Engineering Colleges in Karnataka. All the strategies and policies that we plan have this over-arching goal as a guide. The college has very good infrastructural facilities and the people at NCET are among the best in their fields. The world is changing at exponential rate such that future is no more an extrapolation of the past and the present. It is important to be innovative to keep pace with the world. Science & technology have a great role to play in building India into a developed nation.



**A view of the Administrative Block**

The Nagarjuna College of Engineering and Technology is strategically located on the Bangalore-Hyderabad National Highway, a road that falls on the Golden quadrangle. Its proximity to the International airport at Bangalore gives it strategic location and commutability. The lush green campus is spread across 72 acres with on-campus residence for boys and girls. The hostels have amenities like mess, recreation room and state of art Gymnasium etc. Students are encouraged to actively participate in outdoor games as well.

NCET is a tribute to nation from the business house of Nagarjuna Construction Company Ltd. The college is proud to be associated with such a prestigious organization.

### **Our Vision:**

Leadership and Excellence in education.

### **Our Mission:**

To fulfill the vision by imparting total quality education replete with the philosophy of blending human values and academic professionalism.

### MANAGEMENT COMMITTEE:

Sl. No	Name	Designation
1.	Sri. J V Ranga Raju	Chairman & Secretary
2.	Sri. K V Sekhar Raju	President
3.	Smt. Sridevi Raju	Founder Member
4.	Sri. J Chaitanya Varma	CEO
5.	Sri. J S R Raju	Treasurer
6.	Sri. Gopala Krishnam Raju	Joint Secretary
7.	Sri. P Vishwanatha Raju	Member
8.	Sri. A S N Raju	Member
9.	Smt. Bhanu Chaitanya	Member
10.	Smt. Sowjanya	Member
11.	Dr. K S Deshikachar	Director



**Glimpse of IKYA - 2014**

**GOVERNING BODY**

1.	Sri. J V Ranga Raju, Chairman, NES, Bangalore.	Chairman
2.	Smt. Sridevi Ranga Raju, Founder Member, NES, Bangalore.	Member
3.	Sri. J Srirama Raju, Director, NCC Urban, Bangalore.	Member
4.	Sri. J Chaitanya Varma, Secretary, NES, Bangalore.	Member
5.	Sri. C Prem Chandar Reddy, Executive Vice President, NCCL, Bangalore	Member
6.	Dr. K S Deshikachar, Director, NES, Bangalore.	Member
7.	AICTE Nominee	Member
8.	UGC Nominee	Member
9.	State Government Nominee	Member
10.	Dr. A S Deshpande, Principal, Gogte Institute of Technology, Belagavi	Member, VTU Nominee
11.	Dr. N. G. S. Udupa, Vice Principal, NCET, Bangalore.	Member
12.	Dr. P. Harisha, Dean - NCET, Bangalore.	Member
13.	Dr. S G Gopala Krishna, Principal, NCET, Bangalore.	Member Secretary

**CURRICULAR ASPECTS:**

NCET has its own well defined Vision, Mission and objectives to achieve high standards in the Higher Education. From 2001 to 2014 the college is following the curriculum framed by Visvesvaraya Technological University from time to time. From the academic year 2015, curriculum will be framed by the Board of Studies, consisting of experts from academia and industry, as the college has been granted autonomous status by the University and the Government of Karnataka. The college will switch over to CBCS, which provides flexibility in framing the curriculum. Industry tie ups, Workshops, Conferences, FDPs and Invited talks will add more value to the student knowledge and make them to compete with external world.

**TEACHING - LEARNING AND EVALUATION:**

Admission to all programs both UG and PG will be made in the beginning of the odd semester at the first year level based on the performance in the entrance examinations

CET/COMEDK and PGCET respectively as per the guidelines issued by the Government of Karnataka from time to time.

The students admitted come from different background and hence an orientation program on General Mathematics, English Communication and personality development will be conducted for newly admitted students before the actual commencement of regular classes.

The institute has well equipped laboratories where students can practice practical concepts. LCD Projectors and teaching aids are provided for effective teaching.

The library has good number of books, journals both printed and electronic forms along with NPTEL videos which can be used by students and faculties for their knowledge up gradation.

The subject for the teacher will be allotted based on the preference before the commencement of semester. Teachers will prepare the lesson plan and course material for the same. The course materials will be uploaded in the college web site so that student can easily access it. A diary is maintained by the teacher indicating the lesson plan, portion covered etc. The portion covered is compared with lesson plan to ensure coverage of the syllabus.

Students' performance will be evaluated by the CIE and SEE.

Every student is assigned to a counselor and the progress of the student is continuously monitored and entered in the ERP.

Parent Teacher meetings are conducted periodically to keep the parents informed about their ward's progress. The feedback from the students and parents is also discussed during the meetings and corrective measures are initiated.

Two feedbacks will be taken by the students about the teaching of the faculty during the semester and feedback will be given to the faculty for rectifying the deficiency, if any.

The Institution provides support to its faculty members for their overall growth and development. They are granted leave for higher studies and are sponsored for seminars, workshops and conferences at National and International level.

### **RESEARCH, CONSULTANCY AND EXTENSION:**

**NCET always supports the research activities.** Empowerment of knowledge is achieved with strong theoretical knowledge, interdisciplinary skills, creativity, innovation, and hands on expertise and professional ethics. Research activities in the institute foster these needs among Students and faculty members.

Faculty members are always supported to publish and present papers. 41 research Scholars are pursuing Ph.D. under the guidance of our faculty. 12 Projects were funded by the various funding agencies like VTU, VGST, Institute of Engineers, KSCST and many more. Many of our final year student projects were sponsored by KSCST every year. Institute has

seven VTU recognized research Centers in the departments of EC, CS, ME, CV, Chemistry, Physics and Management Studies.

Institute has MOUs with many industries and organizations like Oracle, EMC<sup>2</sup>, TCS-ion, NIIT, Wipro, NCC, IIT Mumbai, etc. The college has a consultancy cell to carry out consultancy work which caters to various Government and Private Organizations.

### INFRASTRUCTURE AND LEARNING RESOURCES:

The Nagarjuna College of Engineering and Technology is strategically located on the Bangalore-Hyderabad National Highway, a road that falls on the Golden quadrangle. Its proximity to the International airport at Bangalore gives the advantage of easy commutability. The lush green campus is spread across 72 acres with on-campus residence for boys and girls. The hostels have amenities like mess, recreation room and state of art gymnasium etc. Students are encouraged to actively participate in outdoor games as well.

All physical facilities like class rooms, seminar halls, laboratories, tutorial facilities, R&D centers are satisfying the curricular and co-curricular requirements. Round the clock Security is provided to the hostel and campus. The college has hygienic canteen and mess facility. The placement and training cell is well established with GD, Interview rooms and seminar halls. The College is having a computer centre with LAN connected systems. Further, 45 MBPS Wi-Fi facilities and licensed software are also available. The Institute has well equipped and spacious Auditorium and seminar halls.

### STUDENT SUPPORT AND PROGRESSION:

**NCET provides all types of support to the students for their overall development.**

- Course material is provided on the website for easy access.
- Special classes are conducted for the benefit of weak students.
- Classes in Communication English, Personality Development and yoga are conducted.
- As a part of the co-curricular activity, an Inter colligate fest “IKYA” is celebrated.
- Annual cultural day is organized to make room for the students to show their cultural talents.
- Students are permitted to participate in seminars, cultural fests and sports activities organized by the University and other colleges.
- Annual sports day is organized for students and faculties.
- Each department is conducting Guest Lectures/Seminars/Workshops/ Conferences regularly.
- The following clubs are functional in the college:
  - Robotic club
  - Photographic club
  - Music club
  - Chess club
  - Cultural club
  - Departmental forums
  - ISTE Students’ Chapter
  - ISHRAE Students’ chapter
  - CSI Student Chapter

### GOVERNANCE, LEADERSHIP AND MANAGEMENT:

NCET, is the brain child of Sri J.V. Ranga Raju, Secretary, NES. He is also the Director of the prestigious NCC & the Chairman of the Governing Council of our college. His contribution to education and philanthropy is immeasurable. We are fortunate to be under his constant guidance and support.



Sri. J. Chaitanya Varma,  
CEO, NES



Dr. K.S. Deshikachar  
Director, NES



Dr. S.G. Gopala Krishna,  
Principal, NCET

Nagarjuna College of Engineering and Technology, a flagship institution under Nagarjuna Education Society, is an outcome of far-sighted vision of Mrs. Shridevi J. Rangaraju. She has been the motivator, visionary and it is purely due to her dedication and determination that NCET has been listed as one among the top engineering Institutions under the Visvesvaraya Technological University (VTU). Smt. Sridevi Ranga Raju, is the founder member of NES. She is very active in her work and shows keen interest in the overall development of NES and NCET in particular.

Sri K.V. Sekhar Raju, President, NES actively involves himself in the activities of our College.

NCET is fortunate to be under the dynamic leadership of its young CEO, Sri. J. Chaitanya Varma. He is leading all of us in the right direction so as to develop NCET as one of the top engineering college in Karnataka. He encourages the students in all possible ways. He actively involves himself and interact with the students to get to know their needs and requirements. He takes keen interest in fulfilling their needs.

Mrs. Bhanu Chaithanya Varma has lot of passion towards the teaching and other activities being conducted at college. She calls many meetings with students and teachers, so that every activity in the college is being organized with utmost care. She involves herself in every work for the success of the programmes.

Dr. K.S. Deshikachar, Director-NES, is an alumnus of IISc, Bangalore. He has a vast academic experience at KREC, Surathkal, presently called NITK, Surathkal. He is a great visionary who has contributed towards the overall growth and development of the college.

### INNOVATIONS AND BEST PRACTICES:

- Special coaching classes for the weak students and peer tutoring.
- Scholarships for poor and meritorious students to the tune of Rs. 2.4 Crores

- benefitting 1043 students.
- 5% of students are provided with free education to the tune of Rs. 40 lakhs benefitting 150 students
  - Fee Concession offered to the tune of Rs. 88 lakhs during 2014-15 benefitting 200 students.
  - Preparation of Video lectures of Laboratory Courses.
  - Mini and Major student project works
  - MOUs with reputed institutions and industries
  - Membership of Professional Bodies like ISTE, CSI, ISHRAE, ASHRAE, CMTI, Delnet, NPTEL,
  - Student Book Bank Scheme.
  - Departmental Forum for student activities.
  - Implementation of Online feedback system, Online Examination system, Online Leave Management System, ERP Software.
  - Student counseling and periodic parents meet.
  - Encouragement to Faculty to develop the ERP package, college website, Leave Management System, Learning Management System and to use Moodle.
  - Blood Donation camps as a social service function.
  - Student Internet World for training high school children
  - All the students and staff are covered for Rs. 10 lakhs insurance.
  - CCTV Surveillance system for the entire campus including hostels.
  - Celebration of Engineers Day and Environmental Day.
  - Roof top solar power plant of 100 KW capacity.
  - Sewage treatment plant, solar street lights and rain water harvesting are implemented.
  - Ethics and Value based classes are being conducted by Harmonix Global Foundation, an off shoot of ISKCON.
  - Merit prizes for class toppers.
  - Project Exhibition and prizes for the best projects of final year student projects.

### SWOC ANALYSIS

#### Strengths:

- S1:** NCET is a tribute to nation from the business house of Nagarjuna Construction Company Ltd. The college is proud to be associated with such a prestigious organization.
- S2:** NCET is strategically located on the Bangalore-Hyderabad National Highway, a road that falls on the Golden quadrangle with lush green campus of 72 acres.
- S3:** Qualified and experienced faculty with good academic and industry experience.
- S4:** Students of different ability, different states, NRI and Foreign students take admission. Hence it creates an environment of global nature.
- S5:** Each department has separate block with well equipped laboratories. A well furnished library provides access to books, journals, magazines, news papers and also has subscription to online journals.
- S6:** All departments have departmental Forums and VTU recognized research centers. The college has MOUs with industries and other research organizations.
- S7:** The institute has initiated e-administration, by introducing online feedback system and online leave application system.
- S8:** 45 MBPS Wi-Fi enabled campus and CCTV camera surveillance.

**S9:** Recognized as Centre for Innovative Science and Technology by Government of Karnataka.

**S10:** On campus residential accommodation for boys, girls and staff.

**S11:** Implementation of innovative concepts such as Virtual labs, Learning Management System with Moodle, Video Lecture of Laboratory Courses, and Peer Tutoring.

### Weakness:

**W1:** Located in Rural Bangalore. Hence, increased commuting time.

**W2:** NCET is the self financed institute and fee collection is the major source of income. The fee monitoring by the state government and rigorous competition in admission puts more financial burden on the management.

**W3:** Consultancy needs to be strengthened.

**W4:** Poor Supply of Electricity from the Rural Feeder. Hence load on the captive generation is more.

**W5:** The State Transport facility is inadequate. Hence more load on the college transport.

**W6:** Funding from various funding agencies needs to be strengthened.

### Opportunities:

**O1:** Granted Autonomous status which provides flexibility in curriculum design. Curriculum can now be designed as per the requirements of the industry.

**O2:** Close Interaction with Nagarjuna Construction Company provides better collaboration and consultancy.

**O3:** Implementation of CBCS provides the opportunity for the students to learn at their own pace.

**O4:** Young and talented faculty can be encouraged for research and innovative practices.

**O5:** Laptops have been given to all the faculty members, which provides an opportunity for them to use & generate e-content effectively in teaching and research & development activities.

**O6:** Possibility of offering electives in the emerging areas in collaboration with industries as well as open electives.

**O7:** Introduction of Certificate courses and diploma courses to achieve skill development.

### Challenges:

**C1:** Attracting good quality students from different regions.

**C2:** More Number of Colleges/Private Universities in the field of technical education in the country and in particular in the state of Karnataka.

**C3:** Synchronizing between students of different learnability.

**C4:** Attracting and retaining good faculty as they may be attracted by the industry and other institutions.

**C5:** Periodical changes in the Governmental policies with respect to admission and fee structure.

\*\*\*

## **PROFILE OF THE INSTITUTE**

## 1. Profile of the Autonomous College

### 1. Name and Address of the College:

<b>Name :</b>	Nagarjuna College of Engineering & Technology	
<b>Address :</b>	Venkatagirikote (P), Devanahalli (Tq), Bengaluru - 562164	
<b>City : Bengaluru</b>	Pin : 562164	State : Karnataka
<b>Website :</b>	www.nagarjunaeducation.com/ncet	

### 2. For Communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. S.G. Gopala Krishna	9845934433	9448120241	080-6746 2799	principal@ncetmail.com
Vice Principal	Dr. N.G.S. Udupa	9845934433	9448969937	080-6746 2799	ngsudupa@gmail.com
Steering Committee Co-ordinator	Dr. Gururaj Murtugudde	9845934433	9611196628	080-6746 2799	gururajmurtu@gmail.com

### 3. Status of the Autonomous college by Management:

Government	
Private	✓
Constituent College of the University	

### 4 Name of the University to which the college is affiliated

Visvesvaraya Technological University, Belagavi

### 5. a. Date of establishment prior to the grant of autonomy (dd/mm/yyyy):

27/06/2001

### b. Date of grant of autonomy to the college by UGC:

Autonomy has been granted by the University on 09.6.2015 and State Government on 29.6.2015. The application for approval for grant of autonomy has been forwarded to UGC by Registrar, VTU vide letter no. VTU/ACA/2014-15/A-11/1710 dated 9.6.2015

## 6. Type of Institution:

### a. By Gender

- i. For Men
- ii. For Women
- iii. Co-education

✓

### b. By Shift

- i. Regular
- ii. Day
- iii. Evening

✓

### c. Sources of funding:

- Government
- Grant-in-aid
- Self-financing
- Any other

✓

## 7. It is a recognized as minority institution?

- Yes
- No

✓

## 8. a. Details of UGC recognition:

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks(If any)
i. 2 (f)	Applied for 2(f) recognition through letter NCET/1631/2015-16 dated 05-10-2015 and VTU Recommendation to UGC vide letter no. VTU/GEN/2015-16/5900 dated 6.10.2015. UGC F No. 8-682/2015(CPP-I/C) December, 2015.	
ii. 12 (B)	NA	

## b. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section / clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year	Validity	Remarks
AICTE Recognition (UG )	Electronics & Communication Engineering	7 <sup>th</sup> April 2015	2015-16	Permanent affiliation from VTU, Belagavi
	Computer Science & Engineering			
	Information Science & Engineering			
	Mechanical Engineering			
	Civil Engineering			
AICTE Recognition (PG )	Machine Design	7 <sup>th</sup> April 2015	2015-16	Temporary affiliation from VTU, Belagavi
	VLSI Design & Embedded System			
	Structural Engineering			
	Computer Science			
	Construction Technology			
	MBA			Permanent affiliation from VTU, Belagavi

**Refer Annexure (I) for AICTE approval letter and Annexure (II) for VTU affiliation**

letter.

9. Has the college recognized

a. by UGC as a College with Potential for Excellence (CPE)?

Yes ☐ No ☒

b. for its contribution / performance by any other governmental agency?

Yes ☒ No ☐

If yes, Name of the agency: Department of IT, BT and Science and Technology,  
Government of Karnataka and

Date of recognition : 30.01.2014

10. Location of the campus and area in sq.mts:

<b>Location *</b>	<b>Rural Bangalore</b>
Campus area in sq. mts.	2,91,374 sq.m
Built up area in sq. mts.	60,000 sq.m

11. Does the College have the following facilities on the campus (Tick the available facility)? In case the College has an agreement with other agencies in using such facilities provide information on the facilities covered under the agreement.

- Auditorium/seminar complex

<b>Auditorium</b>	<b>Seating Capacity</b>
Main Auditorium	500
MBA Block Seminar Hall	150
Main Block Seminar Hall 1	150
Main Block Seminar Hall 2	150
ME Seminar Hall	100
Civil Seminar Hall	150



Exterior View of Auditorium



Interior View of Auditorium



Interior View of MBA Seminar Hall

## • Sports facilities

Play ground	<b>Available</b>	<b>Facilities:</b> Outdoor games: Basket Ball Court, Volley Ball Court, Football/Cricket Ground Indoor games: Table tennis, carom, badminton
Swimming Pool	<b>Not Available</b>	
Gymnasium	<b>Available</b>	<b>Facilities:</b> Gym Facility with the following equipments Statistical cycle Tread Mill Multipress      Leg extention Dumbbells      Single bar Double bar      Bench cross



**Students of NCET playing basket ball**



**Girls Students of NCET playing basket ball**



View of Gymnasium



View of Gymnasium

## Hostel

Number of Hostels	Numbers of Inmates	Facilities
<b>Boys' Hostel</b>		
07	628	Mess, TV, WiFi, Gym, Sports
<b>Girls' Hostel</b>		
02	128	Mess, TV, WiFi, Sports
<b>Working Women's Hostel</b>		
03	10	Mess, TV, WiFi, Sports



Aerial view of Boys Hostel Blocks



A view of Girls Hostel Blocks

- Residential facilities for teaching and non-teaching staff (give numbers available —cadre wise) : 12 staff quarters are available



A view of Staff Quarters/Guest House

- Cafeteria – 02 cafeterias Available. Canteen and Coffee Day



Interior view of Canteen



Coffee Day outlet



Exterior view of Canteen and Mess

- **Health Centre** – Available  
First aid, Inpatient, Outpatient, Emergency care facility, Ambulance, Health centre staff

Qualified doctor	Full time	-	Part-time	01
Qualified Nurse	Full time	-	Part-time	01

### Other Facilities

Bank	Available
ATM	Available (Axis Bank and Corporation Bank)
Post office	Post Box Available
Book shops	Available



Corporation and Axis Bank ATMs



View of General Stores

## Self Study Report - 2015

- Transport facilities to cater to the needs of students and staff

College Buses	20
Tempo Traveller	01
Cars	03



Fleet of College Transport

- Generator or other facility for management/regulation of electricity and voltage : Available
- Solid waste management facility : Available
- Waste Water Management : Available
- Rain Water harvesting : Available



Generator Facility

## Self Study Report - 2015

### 12. Details of programmes offered by the college (Give data for current academic year)

Sl. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
<b>1.</b>	<b>Under-Graduate</b>						
	B.E.	Electronics & Communication Engineering	4 Years	PUC/10+2 with PM	English	120	104
	B.E.	Computer Science & Engineering				120	106
	B.E.	Information Science & Engineering				60	50
	B.E.	Mechanical Engineering				180	165
	B.E.	Civil Engineering				180	161
Sl. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
<b>2.</b>	<b>Post-Graduate</b>						
	M. Tech	Machine Design	2 Years	B.E. in respective specialization	English	18	01
	M. Tech	VLSI Design & Embedded System				18	02
	M. Tech	Structural Engineering				24	18
	M. Tech	Computer Science				18	00
	M. Tech	Construction Technology				18	18
	Management	MBA	2 Years	Any UG degree	English	60	22

3. Ph.D							
Ph.D. Research Centers Recognized by VTU	Electronics & Communication Engineering	Minimum of 3 years	Master's Degree with 55%	English		03	
	Computer Science & Engineering					12	
	Mechanical Engineering					18	
	Civil Engineering					08	
	MBA					06	
	Physics					01	
	Chemistry					02	

13. Does the college offer self-financed Programmes?

Yes

☒

No

☐

If yes, how many?

All programs are self-financed as institution is unaided and self-financed.

14. Whether new programmes have been introduced during the last five years if any?

Yes

☒

No

☐

Number

5

15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)

Faculty	Departments (eg. Physics, Botany, History etc.)	UG	PG	Research
Engineering	Dept of Electronics & Communication Engineering	✓	✓	✓
	Dept of Computer Science & Engineering	✓	✓	✓
	Dept of Information Science & Engineering	✓	-	-
	Dept of Mechanical Engineering	✓	✓	✓
	Dept of Civil Engineering	✓	✓	✓

## Self Study Report - 2015

Management Studies	Dept of MBA	-	✓	✓
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16. Are there any UG and/or PG programmes offered by the College, which are not covered under Autonomous status of UGC? Give details:

No, All Programmes are covered under Autonomous status.

17. Number of Programmes offered under (Programme means a degree course like BA, BSc, MA, M.Com...)

a. Annual system	Nil
b. Semester system	11
c. Trimester system	Nil

18. Number of Programmes with

a. Choice Based Credit System	11
b. Inter/Multidisciplinary Approach	Nil
c. Any other (specify and provide details)	Nil

19. Unit Cost of Education

*(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)*

(a) Including the salary component	Rs. 91,500
(b) Excluding the salary component	Rs. 42,300

20. Does the College have a department of Teacher Education offering NCTE recognized degree programmes in Education?

Yes ☐ No ☒

21. Does the College have a teaching department of Physical Education offering NCTE recognized degree programmes in Physical Education?

Yes ☐ No ☒

22. Whether the College is offering professional programme?

Yes ☒ No ☐

If yes, please enclose approval / recognition details issued by the statutory body governing the programme.

**Enclosed as Annexure I and II**

23. Has the College been reviewed by any regulatory authority? If so, furnish a copy of the report and action taken there upon.

- Admission process to the college is regulated and controlled by Government of Karnataka, through KEA. Further, the admission is scrutinized and reviewed by DTE and VTU.
- The University Seat Number (USN) to every student is allotted by VTU only and this USN remains same for a student from First semester to Eighth Semester, so that his/her performance can be tracked by the reviewing authority.
- The college fee to be paid by the student is regulated by Fee fixation committee constituted by Government of Karnataka.
- Introduction of new programmes/increase in intake existing programmes is reviewed and approved by AICTE, VTU and Government of Karnataka.
- The regulations governing the autonomous status are prepared within the broad guidelines stipulated by the VTU and VTU reviews it at regular intervals.
- Flexibility in programmes is implemented within the broad guidelines of UGC/AICTE.

### 24. Number of teaching and non-teaching positions in the college

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor					
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC / University / State Government <i>Recruited</i>	N A									
<i>Yet to recruit</i>										
Sanctioned by the Management/ society or other authorized bodies <i>Recruited</i>	18	05	24	12	67	53	82	59	47	12
<i>Yet to recruit</i>										

**\*M-Male \*F-Female**

**25. Qualifications of the teaching staff:**

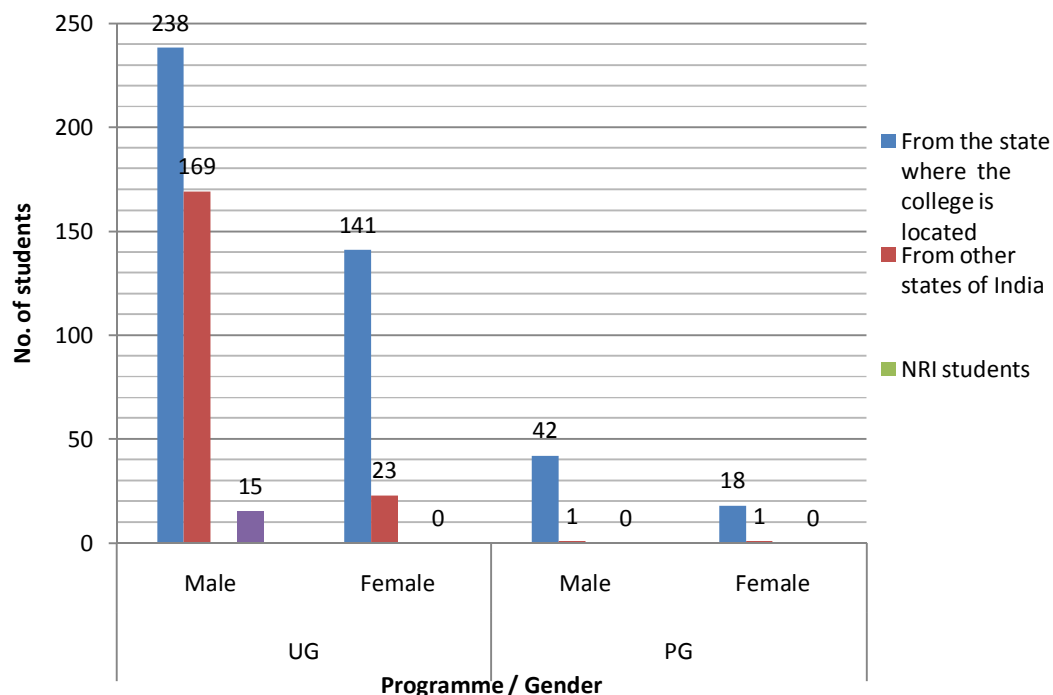
Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	N A						
Ph.D.	14	04	01	-	00	-	19
M.Phil.	-	-	02	02	-	01	05
PG	04	01	21	10	67	52	155
Temporary teachers							
Ph.D.	NIL						
M.Phil.							
PG							
Part-time teachers							
Ph.D.	NIL						
M.Phil.							
PG							

**26. Number of Visiting Faculty /Guest Faculty engaged with the College. :**

Nil
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**27. Students enrolled in the College during the current academic year, with the following details:**

Students	UG		PG		Ph.D	
	M	F	M	F	M	F
From the state where the college is located	238	141	42	18	02	01
From other states of India	169	23	01	01	0	0
NRI students	0	0	0	0	0	0
Foreign Students	15	0	0	0	0	0
Total	422	164	43	19	02	01



28. Dropout rate in UG and PG (average of the last two batches)

UG  PG

29. Number of working days during the last academic year.

30. Number of teaching days during the last academic year.

31. Is the college registered as study centre for offering distance education programmes for any University?

Yes  No ☒

32. Provide Teacher-student ratio for each of the programme/course offered :

UG : 1:15 PG:1:12

33. Is the college applying for

Accreditation: Cycle 1 ☒ Cycle 2 ☐ Cycle 3 ☐ Cycle 4 ☐

Re-Assessment: ☐

34. Date of accreditation\* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)

Not Applicable

35.a. Date of establishment of Internal Quality Assurance Cell (IQAC)

IQAC 05/02/2006(dd/mm/yyyy)

b. Date of submission of Annual Quality Assurance Reports to NAAC.

Not Applicable

36. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information)

\*\*\*



NCET Volley Ball Team

**CRITERIA WISE ANALYTICAL  
REPORT**

## **CRITERION I**

### **CURRICULAR ASPECTS**

#### **1.1 Curriculum Design and Development**

##### **1.1.1 How are the institutional vision / mission reflected in the academic programmes of the College?**

**Vision:**

Leadership and Excellence in education.

**Mission:**

To fulfill the vision by imparting total quality education replete with the philosophy of blending human values and academic professionalism.

**Quality Policy:**

**Nagarjuna College of Engineering and Technology (NCET)** shall be maintained, as an “Institution of Excellence”, in the domains of Engineering, Technology and Management studies through continual improvement of system, processes and academic professionalism.

The following objectives broadly bring out the reflection of vision/mission in the various academic programmes of the college.

**Objectives:**

- Providing educational services in Engineering and Technology at graduate and post graduate level, appropriate to the National and International needs.
- To establish collaborative relationship with industrial organizations for rendering our students industry ready and enhance their placement opportunities.
- To mould our students as citizens with moral, ethical and social values.
- To develop our library as one of the best information resource center.
- To have an environment friendly campus with residential facility to staff and students.
- To encourage the students to participate in the sports and cultural activities.
- To encourage the staff and students to participate/organize seminars, workshops, conferences and FDPs.
- To create an academic environment for staff and students to involve in R&D activities and to publish technical papers.

All the programmes are designed in such a way that the courses offered in the programmes fulfil the Programme Educational objectives(PEO) and Programme Outcomes (PO) and Programme Outcomes in turn reflect the vision/mission of the college.

Every programme is designed in such way that the courses invariably include laboratory work, integrated courses, virtual laboratory, seminars, assignments, quizzes and industrial visits to ensure that the students achieve excellence in the

area of their specialization.

Every course in a programme has crisply defined Course Educational Objectives (CEO) which can be correlated with PEO.

Programmes are defined in such a way that, which produce graduate engineers with leadership qualities, entrepreneurship skills, art of dealing people, soft skills and ability to work in a group, etc.

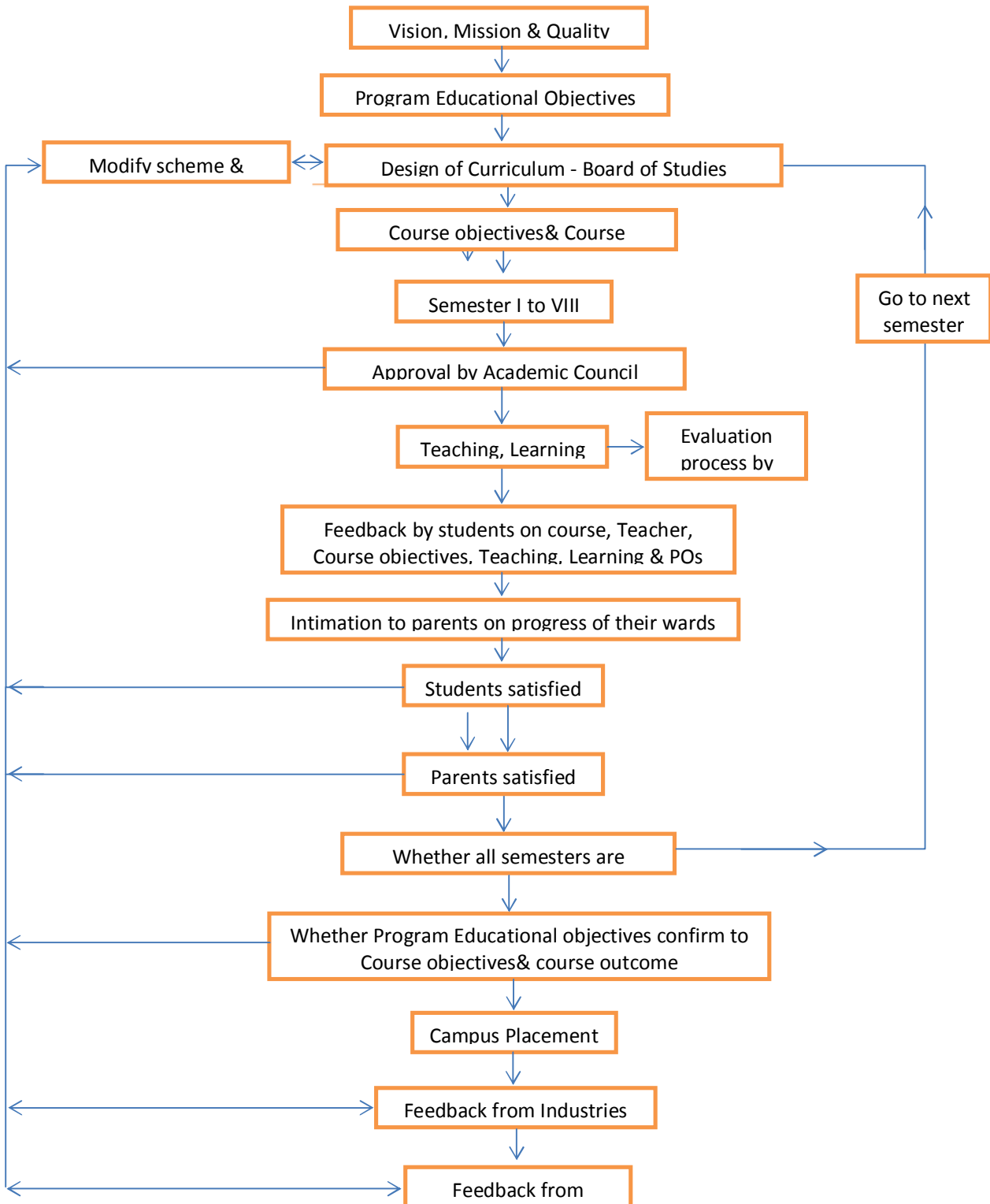
Programmes are also designed to inculcate the sound engineering knowledge in the concerned branch of engineering blended with analytical and design skills so as to enable the students to get placed.

Feedbacks from all the stakeholders is collected and analysed to redesign the programme objectives at regular intervals.

**1.1.2 Describe the mechanism used in the design and development of the curriculum? Give details on the process. (Need Assessment, Feedback, etc)**

The institution has followed the curriculum and syllabi prescribed by the University when it was non-autonomous till 2014-15. The university used to review the syllabi once in four years. Since 2015-16, all academic programmes at NCET are conferred with academic autonomy and have constituted a Departmental Board of Studies (BOS) in accordance with the affiliating University statutes. Under autonomy, curriculum design and development has received great attention and the BOS meets atleast once in a semester to upgrade/modify the course design and syllabus, keeping abreast with the industry requirements. The BOS of all the academic programmes have taken steps to make changes in the core areas like curriculum development, assessment strategies, and delivery methods.

## Mechanism for Design & Development of curriculum



### *1.1.3 How does the College involve industry, research bodies, and civil society in the curriculum design and development process? How did the College benefit through the involvement of the stakeholders?*

- NCET has very good interaction with the industries which helps in effective framing and implementation of Curriculum.
- The Academic Council and Board of Studies consist of members from industries, Research centers and reputed institutions. The university nominees to these bodies are also closely associated with effective curriculum development.
- Experts from reputed industries and academic institutions are invited for delivering lectures and having interaction with the faculty members and students.
- Institute has several collaborations and MOUs with the industries and research organizations for sharing their knowledge in developing better curriculum.
- The alumni meet organized by the college helps in eliciting the feedback from the alumni members of the college regarding the improvement in the curriculum.
- Seven departments of the institution are recognized as a research centers by VTU, which helps faculty and students to involve in research and development activities.
- NCET encourages faculty and students to work on in-house projects and to also take up projects from funding agencies like VTU, VGST, KSCST etc.
- The Institute organizes “Mission Empowerment 10000 programme” sponsored by VTU, under which two batches of students are already trained. This training improves placement opportunities.
- Based on the feedback from the various stakeholders, the softskill training programme, personality development programme and communication skill development courses were introduced in the curriculum.

### *1.1.4 How are the following aspects ensured through curriculum design and development?*

#### *\* Employability :*

To improve the employability of graduates courses are blended with virtual labs, quizzes, assignments, industrial internships, industrial visits and industry based Projects. To ensure that the students specialize in a specific area, flexibility in the programme is provided through professional Electives and various knowledge enrichment activities such as paper presentations in conferences, participation in workshops and seminars, etc. which in turn improve the employability of the students.

The individual Board of Studies takes the responsibility of designing the

curriculum for the autonomous programmes. The experts from different industries are the part of the BOS. Hence the curriculum will be able to meet the needs and demands of industries, which enhances the employability of the students.

The Placement and Training Cell of NCET also conducts many soft skill training programmes and mock tests for the students to improve the skill sets of the students as required by the Industry.

*\* Innovation:*

The introduction of the integrated courses, virtual lab concepts, provision to involve students in mini projects and major projects, acquiring the knowledge beyond the syllabus leads to innovative outcome.

*\* Research:*

The Internships/Seminars/Project Works of the curriculum gives an opportunity for the students to carry out some research based projects which may lead to publications in conferences/journals. Many programmes have the concept of research based term papers which are part of curriculum.

*1.1.5 How does College ensure that the curriculum developed addresses the needs of the society and have relevance to the regional / national developmental needs?*

The talented engineering graduates produced by the institution can serve at regional and national level in various capacities. They can become, not only professional engineers and managers in companies, but can get into the services of state and central governments.

Students are studying subjects like Constitution of India, Professional Ethics and Human Rights, Personality Development Programme, Environmental Studies as part of their curriculum. These subjects help them to get an insight into the fundamental rights of Indian citizens, moral and ethical values to be adopted and fulfil the needs of the society.

Various certificate courses offered by the departments empower the students to specialize in specific area which will develop entrepreneurial skills and fulfill the needs of the society (List of Certificate courses is provided in Annexure–VII).

*1.1.6 To what extent does the College use the guidelines of the regulatory bodies for developing or restructuring the curricula? Has the College been instrumental in leading any curricular reform which has created a national impact?*

Till academic year 2014-15, the institute was affiliated to VTU Belgaum and institute had to follow the Syllabus framed by VTU. University gives the list

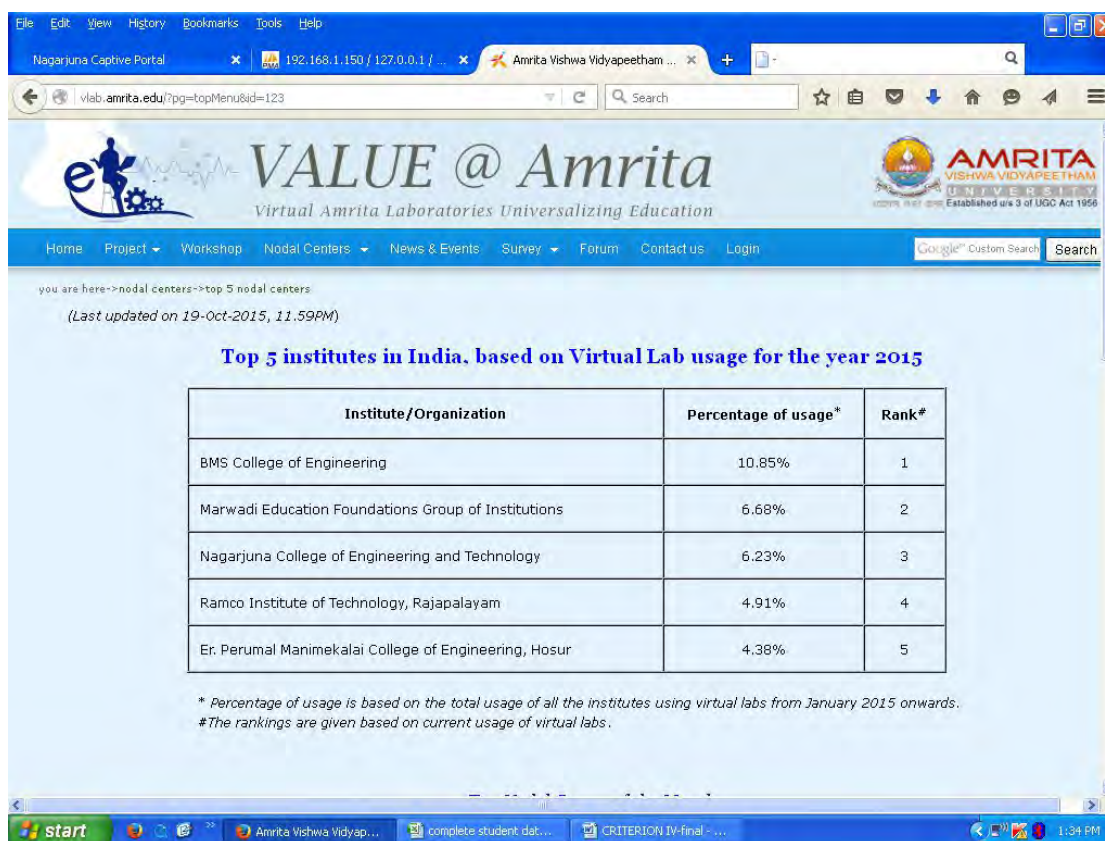
of core and elective subjects. University permits to offer elective subjects from 6<sup>th</sup> to 8<sup>th</sup> Semester. The Institution provides flexibility to the students in making choice of the elective options from the list of elective subjects offered by the University.

From academic year 2015-16, the institute has been granted autonomous status under Visvesvaraya Technological University and institution has switched over to CBCS. Institute follows UGC guidelines in offering core and elective subjects. The number of electives offered has also been increased. The elective subjects are offered from 3<sup>rd</sup> Semester itself. Credit distribution details are given in the following table.

Sl. No	Subject Area	Suggested breakdown of Credits
1	Basic Science Core courses	30
2	Engineering Foundation Courses	30
3	Humanities & Social Science courses	14
4	Professional Core courses	70
5	Professional/Foundation Elective courses	36
6	Project / Seminar / Internship, etc	20
<b>Total</b>		<b>200</b>

Institution has been recognized as the Nodal Center for Virtual Lab facilities sponsored by MHRD, GOI and supported by all IITs and IISc. This facility is being used by staff and students.

Table from the web site of Amrutha University is given below which highlight the keen interest of our students on virtual lab experiments and our college stands at 3<sup>rd</sup> place in the national level.



## 1.2 Academic Flexibility

### 1.2.1 Give details on the following provisions with reference to academic flexibility

#### a. Core / Elective options :

From academic year 2015-16, the institute has been granted autonomous status under Visvesvaraya Technological University and institution has switched over to CBCS. Institute follows UGC guidelines in offering core and elective subjects. The number of electives offered has also been increased. The electives are offered as core and open electives.

From academic year 2015-16, the institute has been granted autonomous status under Visvesvaraya Technological University and institution has switched over to CBCS.

CBCS permits slow learners to complete the programme in an extended time frame and also permits a fast learner to complete the programme a little early. The students have to register for a minimum of twenty credits and maximum thirty credits in a semester.

#### b. Enrichment courses

- Our institution has been recognized as the Nodal Center for

Virtual Lab facilities sponsored by MHRD, GOI and supported by all IITs and IISc at present. Virtual Lab facility is made a part of laboratory courses at first/second semester level. The concept of conducting experiments using Virtual lab facility will be extended to higher semesters also.

- Placement training for all students.
- Classes in Communication English and Yoga are conducted.
- Ethics and Value based classes by Harmonix Global Foundation, an off shoot of ISKCON.
- Various certificate courses are offered from the departments to cater the needs of the industry and society at large.
- Evaluation of the student is not just based on test but also on assignments, quiz, mini projects, term papers etc.

### c. Courses offered in modular form

Each course consists of five modules covering the entire syllabus. Two questions are set from each module with internal choice. Totally ten questions are set and student has to answer five questions by selecting one from each module.

### d. Credit transfer and accumulation facility

Every undergraduate student has to complete 200 credits and post graduate student has to complete 100 credits. Provision is made for Credit transfer and accumulation.

The students can migrate from one branch to another branch at the same College or at another Autonomous/ Affiliated College under the University at the beginning of the second year (third semester) following the AICTE/VTU/State Government norms in vogue and as amended from time to time.

The eligibility criteria for admission of students from a non-Autonomous College to an Autonomous College, from one Autonomous College to another Autonomous College and from University scheme at an Autonomous College to its Autonomous scheme, shall be as fixed by the Academic Council. The eligibility criteria for admission of students from other Universities to an Autonomous College shall be fixed by the Academic Council by getting the individual cases examined through the concerned Board(s) of Studies. After which, the names of eligible candidates (qualifying for admission as per norms laid down by the University from time to time) are recommended to the University for its approval.

### e. Lateral and vertical mobility within and across programmes and courses

The institute is affiliated to VTU Belgaum, and as per the VTU norms a student can opt for change of programme in 3<sup>rd</sup> Semester. The students from other colleges can take transfer to respective programme in NCET in 3<sup>rd</sup> or 5<sup>th</sup> or 7<sup>th</sup> Semesters.

### Vertical Progression:

The vertical progression of students is applied between two academic years only.

The following are the prescribed standards for vertical progression in Autonomous Programmes :

- Minimum CGPA 5.0
- Maximum Number of 'F' Grades that can be carried at the end of any academic year is **four** only.
- The maximum number of withdrawals at any given time shall not exceed two courses subjected to maintaining the minimum registration requirements.
- When a student has to move to 3rd year, he/she should have completed all the credits registered in 1st year including mandatory courses and likewise, to move to 4th year, he/she should have completed all the credits registered in 2nd year.

#### 1.2.2 Have any courses been developed specially targeting international students? If so, how successful have they been? If 'no', explain the impediments.

Short Term Programmes in emerging areas such as Ethical hacking, Python Programming, Robotics, Refrigeration and Airconditioning, Solar and wind power harnessing, Embedded Systems etc. have been organized for the benefit of teachers and students. The details of various skill development programmes proposed to be taken up are shown in Annexure – VII.

The institution also provides an opportunity for the students to learn foreign languages such as German, Japanese and French. They are also provided opportunity to learn the local kannada language.

#### 1.2.3 Does the College offer dual degree and twinning programmes? If yes, give details.

Negotiations are under progress with Royal Melbourne Institute of Technology(RITM) University, Australia to start Dual Degree Programme and other certificate programmes.

#### 1.2.4 Does the College offer self-financing programmes? If yes, list them and indicate if policies regarding admission, fee structure, teacher qualification and salary are at par with the aided programmes?

All programmes offered by institution are self financed. Admission to all the programmes is done as per the rules and regulations laid down by Government of Karnataka for UG programmes as indicated below:

- a. 5% of the students are admitted under super numerary quota by the Government of Karnataka and no fee is collected from these students.
- b. 45% of the students are admitted under CET quota and this admission is done by GOK through CET which is a lower fee category.
- c. 30% of the students are admitted under COMED-K quota which is a higher

fee category.

- d. Remaining 25% of the students come under management quota.

### For PG Programmes:

- a. 80% of the students are admitted under PG CET quota and this admission is done by GOK through PG CET.
- b. Remaining 20% of the students come under management quota.

List of programmes offered by the institution is:

Sl. No.	UG Programmes ( 4 years duration)
1	Electronics and Communication Engineering
2	Computer Science and Engineering
3	Information Science and Engineering
4	Mechanical Engineering
5	Civil Engineering

PG Programmes ( 2 years duration)	
1	Machine Design
2	VLSI Design and Embedded Systems
3	Structural Engineering
4	Computer Science and Engineering
5	Construction Technology
6	Master of Business Administration

- University specified Curriculum is followed for all UG and PG courses. From academic Year 2015-16 Curriculum is designed by the institution as it has been granted autonomous status.
- The Institution has appointed well qualified, experienced faculty members, as per UGC and AICTE norms.

1.2.5 **Has the College adopted the Choice Based Credit System (CBCS)? If yes, how many programmes are covered under the system?**

All programmes offered by the institution follow CBCS.

1.2.6 **What percentage of programmes offered by the College follows:**

- \* Annual system : Nil
- \* Semester system : 100%

\* Trimester system : Nil

1.2.7 What is the policy of the College to promote inter-disciplinary programmes? Name the programmes and what is the outcome?

The institution is planning to introduce a few inter-disciplinary programmes such as Mechatronics, Aeronautical Engineering, Marine Engineering, etc.

### 1.3 Curriculum Enrichment

1.3.1 How often is the curriculum of the College reviewed for making it socially relevant and/or job oriented / knowledge intensive and meeting the emerging needs of students and other stakeholders?

Curriculum of the college are reviewed once in a year.

1.3.2 How many new programmes have been introduced UG and PG level during the last four years? Mention details.

- Inter-disciplinary : Nil

- Programmes in emerging areas : 05

Following were the new programmes introduced during last four years:

- M.Tech in Structural Engineering: 2011-12
- M. Tech in Construction Technology: 2013-14
- M.Tech in Computer Science and Engineering: 2013-14
- M.Tech in Machine Design: 2014-15
- M.Tech in VLSI Design & Embedded System: 2014-15

1.3.3 What are the strategies adopted for revision of the existing programmes? What percentage of courses underwent a major syllabus revision?

All the stake holders such as management, students, parents, faculty members, industry experts and alumni are involved directly or indirectly in the revision of the curriculum. The BOS consists of chairman, subject experts, representatives from industry, VTU and alumni representatives. The feedback from students, parents, industries are taken at regular intervals to verify whether Course Objectives, Course outcome conform to PEO and intern PEO reflect the vision/mission. Based on the feedback, BOS/BOE take up the revision of the syllabi of the existing programmes.

Usually, around 10-15% of the courses across the programmes will undergo major revision. Whereas, in some of the circuit based departments, list of elective courses and their syllabus changes frequently.

1.3.4 What are the value-added courses offered by the College and how does the College ensure that all students have access to them?

Value added courses in emerging areas such as Ethical hacking, Python Programming, Robotics, Refrigeration and Airconditioning, Solar and wind power harnessing, Embedded Systems etc. have been organized for the benefit of teachers and students. The details of various skill development programmes proposed to be taken up are shown in Annexure – VII.

The institution also provides an opportunity for the students to learn foreign languages such as German, Japanese and French. They are also provided opportunity to learn the local kannada language.

Value added courses are given either as electives or taught through expert lectures, seminars, workshops and symposiums, where students can have easy access.

### 1.3.5 Has the College introduced any higher order skill development programmes in consonance with the national requirements as outlined by the National Skills Development Corporation and other agencies?

Several skill development programmes in the areas such as Automobile Engineering, Agricultural implements, welding & soldering techniques, refrigeration & air conditioning, robotics, automation, domestic wiring, electronic equipment repair and maintenance, rain water harvesting, building construction techniques, sewage water treatment, garbage disposal, mobile applications for agriculture produce marketing, pest control, etc are being planned.

The application to NSDC for starting some of the programmes mentioned above is already submitted.

The above skill development programmes enrich the knowledge of students and more or less resemble the programmes offered by NSDC and other agencies.

## 1.4 Feedback System

### 1.4.1 Does the College have a formal mechanism to obtain feedback from students regarding the curriculum and how is it made use of?

Feedback on various courses offered, Course Objectives, usefulness of courses, and fulfillment of Programme Objectives is taken at regular intervals from the students.

The feedback from students is analysed and sent to the respective BOS to review the curriculum so as to achieve the PEOs.

### 1.4.2 Does the College elicit feedback on the curriculum from national and international faculty? If yes, specify a few methods adopted to do the same - (conducting webinar, workshop, online forum discussion etc.). Give details of the impact on such feedback.

Before the curriculum is designed, the BOS goes through the curriculum of reputed

universities at National and International level such as IITs, IISc, NITs, IIMs, and few reputed universities of UK, USA and Australia. In addition, BOS, which is the body for designing the curriculum, has experts from industry and subject experts from reputed academic institutions, conducts brain storming session for designing the curriculum.

Based on such inputs, the college has introduced the concepts such as Virtual labs, integrated courses, Video lectures etc.

### 1.4.3 Specify the mechanism through which alumni, employers, industry experts and community give feedback on curriculum enrichment and the extent to which it is made use of.

The institute has a systematic feedback system to obtain the feedback from students, parents, alumni and employers.

#### **Student Feedback:**

Online feedback is taken twice in a semester from students. Feedback mainly concentrates on academic progress of the curriculum.

#### **Parents Feedback:**

Periodically parents meetings are arranged and during this feedback are taken from the parents regarding the curriculum activities.

#### **Alumni Feedback:**

Feedback is taken from the alumni who are working in industry and moved to higher studies regarding the curriculum during the Alumni Meet.

#### **Employers/ Industries feedback:**

Representatives of various industries give extremely useful feedback regarding the employability of the students and also their expectation from the students during the placement.

All these feedbacks are scrutinized and communicated to the university at the time of curriculum change.

### 1.4.4 What is the quality sustenance and quality enhancement measures undertaken by the institution in ensuring effective development of the curricula?

The institution is ISO-9001:2008 certified and its quality policy is:

“Nagarjuna college of Engineering and Technology”, shall be maintained, as an “Institution of Excellence”, in the domains of Engineering, Technology & Management Studies through continual improvement of system, processes and academic professionalism.

During the first ISO certification in the year 2006, after several brain storming sessions the above said quality policy was arrived. From 2006 onwards care is taken to implement the quality policy effectively as per the requirements of ISO-9001:2008 standards.

The management has evolved a system for periodical review of the continuing suitability of the quality policy in the changing world scenario.

## CRITERION II

### TEACHING-LEARNING AND EVALUATION

#### 2.1 Student Enrollment and Profile

##### 2.1.1 How does the college ensure publicity and transparency in the admission process?

NCET is the one of the well known engineering colleges in Karnataka. Institution was started in the year 2001. Since its inspection NCET is known for imparting quality technical education.

**Publicity of the institution is given by:**

##### 1. Prospectus:

Prospectus gives the complete details about the college like programmes offered, hostel facility for boys and girls, library facility and other infrastructural details. Prospectus also highlights the achievements of the institution. Prospectus is made available to prospective students and their parents who wish to seek admission to NCET.

##### 2. College Website:

The details given in the prospectus are also given through the college website [www.nagarjunaeducation.com/ncet](http://www.nagarjunaeducation.com/ncet). Further the web site contains complete information on the following:

- Department wise faculty details showing the designation, qualification and experience of all teachers.
- Information about the laboratories of all departments.
- Details of hostel facility for boys and girls.
- Details of Placement and Training.
- Information about transport facility, cafeteria, sports and cultural activities.
- Information about seminars, conferences, workshops, technical talks by experts and other activities.
- Library and Information center with details of e-journals.
- Affiliation and Accreditation details of the institution.
- Details of Alumni Association.

The website is updated regularly.

##### 3. Educational Fair:

The publicity is given about the institution and its programmes by participating in the educational fairs organized in different parts of the country. In addition educational fair/Publicity meet are organized in Nepal and Mauritius.

### **Transparency in admission:**

Notification regarding the admission is issued by Karnataka Examination Authority (KEA), Government of Karnataka. The admission is done as per the norms laid down by GoK from time to time. The government quota students are admitted through Karnataka Examination Authority and the management seats are filled by institution on the basis of entrance test.

2.1.2 Explain in detail the process of admission put in place for UG, PG and Ph.D. programmes by the College. Explain the criteria for admission (Ex. (i) merit, (ii) merit with entrance test, (iii) merit, entrance test and interview, (iv) common test conducted by state agencies and national agencies (v) others followed by the College?

### **1. Admission to UG Programmes:**

- 5% of the students are admitted under super numerary quota by the Government of Karnataka and no fee is collected from these students.
- 45% of the students are admitted under State Government quota on the basis of State level Entrance test conducted by Karnataka Examination Authority.
- 30% of the students are admitted under COMED-K quota on the basis of All India Entrance Test.
- Remaining 25% of the students come under management quota. Admission to seats under management quota is made on the basis of an entrance test conducted by institution.
- Candidates who have passed the three year diploma examinations/B.Sc with Physics, Chemistry and Mathematics as main subjects or its equivalent are eligible for direct admission to the second year of the B.E. Degree Programme. Admission under this category is made on the basis of entrance test conducted by Karnataka Examination Authority.

### **2. Admission to PG (M.Tech) Programmes:**

- 80% of the students are admitted under government quota and this admission is done by Government of Karnataka through PG CET.
- Remaining 20% of the students come under management quota. Admission to seats under management quota is made on the basis of an entrance test conducted by institution.

**3. Admission to MBA:**

- 50% of the students are admitted under government quota and this admission is done by Government of Karnataka through PG CET.
- Remaining 50% of the seats come under management quota. Admission to seats under management quota is made on the basis of an entrance test conducted by institution/K-MAT/C-MAT etc.

**4. Admission to Ph.D**

- Notification for admission to the Ph D programmes for the research centers of the college is displayed in the VTU website and as well as is published in leading news papers.
- After scrutinizing the applications candidates will be called for written test followed by the interviews conducted by the subject expert committees.
- Selected candidates will be intimated through intimation letter/ email/sms.
- Then the candidates are allowed to register for Ph D in their respective research center at the college.

2.1.3 Does the College have a mechanism to review its admission process and student profiles annually? If yes, what is the outcome of such an analysis and how has it contributed to the improvement of the process?

YES,

- The representatives of the institution participate in meetings organized by KEA to set and review the admission process (for government quota seats). KEA conducts the CET and announces the ranks for the students. Based on the CET ranking the students attend the online counseling and select the branch and the college.
- The college is a member of “Consortium of Medical, Engineering and Dental Colleges of Karnataka (COMED-K)”, in Karnataka and actively participates in the meetings organized by COMED-K. Further, the association reviews the admission process (for COMED-K quota seats) in consultation with member colleges.
- The college has an admission cell which is responsible for the review of admission process.
- Admission cell also analyses student profile in terms of student’s academic background, economic status, locality of students and gender representation to set right social anomalies in the admission process.

**OUTCOME:** These details also serve as an input for setting new admission policies for the subsequent batches.

2.1.4 What are the strategies adopted to increase / improve access to students belonging

to the following categories:

\* SC/ST

\*OBC

\*Women

\*Different categories of persons with disabilities

\* Economically weaker sections

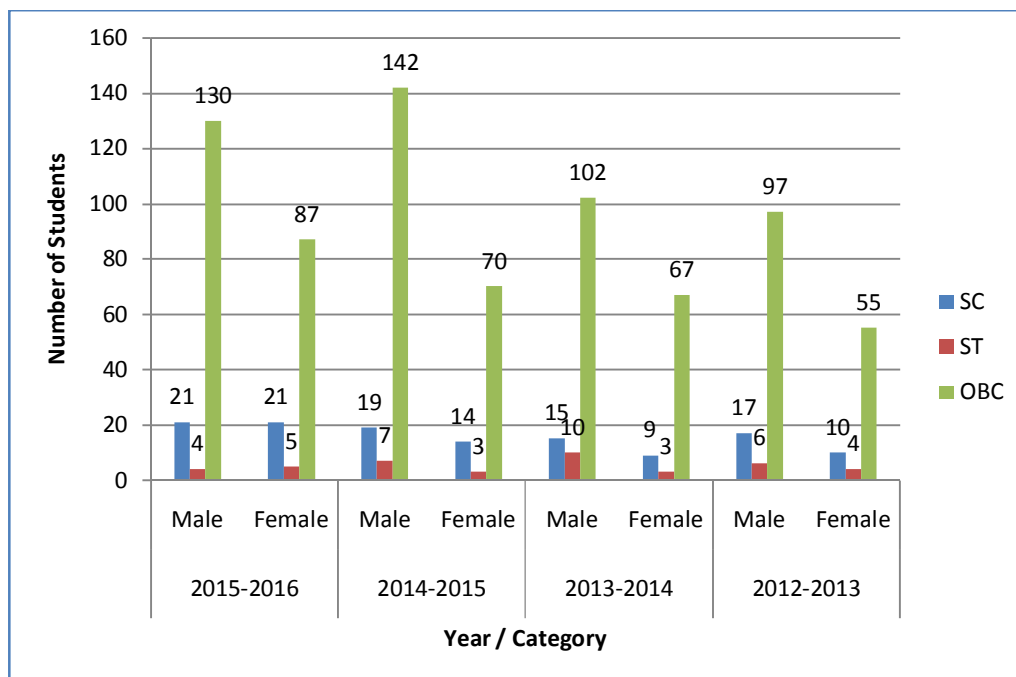
\* Outstanding achievers in sports and extracurricular activities

- 15% & 13% of seats are reserved for the students of SC & ST category respectively under Government quota and these seats are filled by KEA.
- Students who belong to OBC category have a reservation of 22%.
- The percentage of reservation will be fixed by government from time to time.

The details of the SC/ST and OBC students admitted for UG and PG courses during last four years is given below:

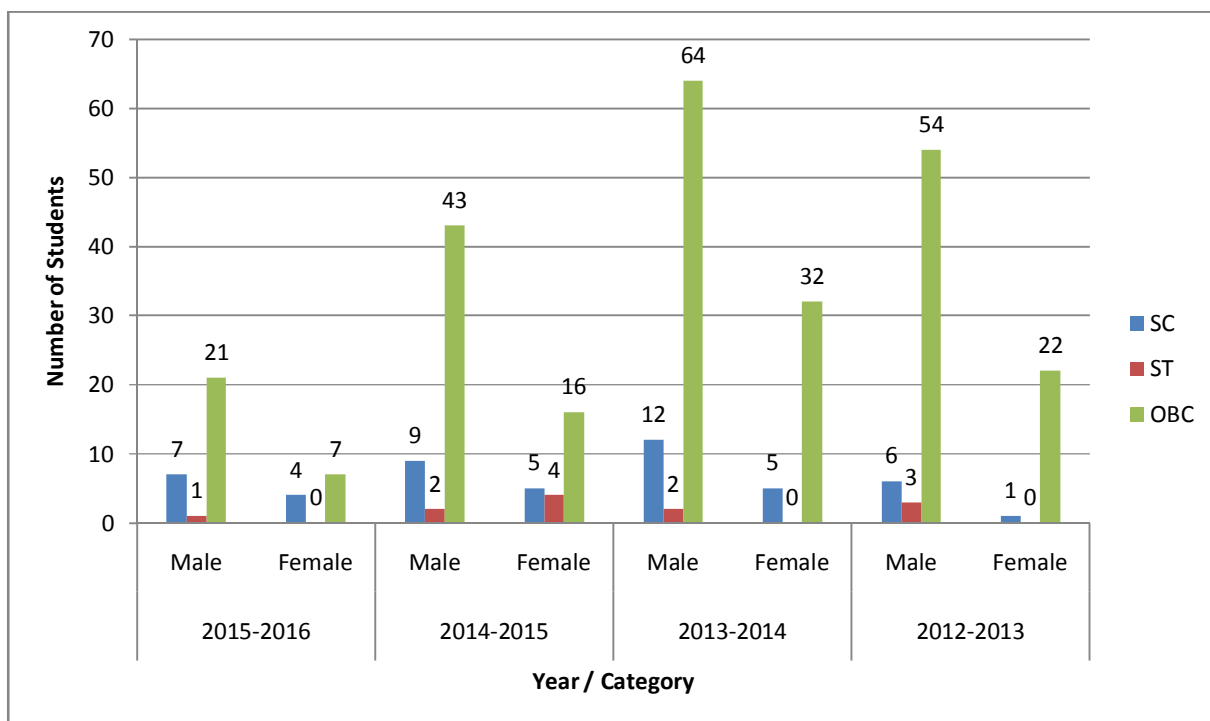
**For UG courses:**

Categories	2015-2016		2014-2015		2013-2014		2012-2013	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	21	21	19	14	15	09	17	10
ST	04	05	07	03	10	03	06	04
OBC	130	87	142	70	102	67	97	55



## For PG courses:

Categories	2015-2016		2014-2015		2013-2014		2012-2013	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	07	04	09	05	12	5	06	01
ST	01	00	02	04	02	00	03	00
OBC	21	07	43	16	64	32	54	22



### ➤ Differently abled Students:

Reservation to the admission to UG courses is available to physically disabled students.

### ➤ Economically weaker sections:

College reserves 5% of the seats for economically weaker section of students. This quota of seats is called Supernumerary quota and students admitted under this quota will not pay any tuition fee. Further the management gives special concession by way of providing fee waivers, fee concessions and scholarships to economically weaker section of students.

### ➤ Minority community:

The College under the direction from the Central Government, State Government and its affiliating university offers every possible help to the students belonging to the minority community.

### ➤ Any other:

Under Government quota seats provision also made for the reservation of seats to the following categories.

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- NCC Special Category
- Sports Special Category
- Scouts and Guide Special Category
- Defense Special Category (10%)
- Rural (15%)
- Kannada Medium (5%)

2.1.5 Furnish the number of students admitted in the College in the last four academic years.

Categories	2015-2016		2014-2015		2013-2014		2012-2013	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	21	21	19	14	15	09	17	10
ST	04	05	07	03	10	03	06	04
OBC	130	87	142	70	102	67	97	55
General	267	51	245	59	211	38	235	35
Others	00	00	00	00	00	00	00	00

2.1.6 Has the College conducted any analysis of demand ratio for the various programmes offered by the College? If so, indicate significant trends explaining the reasons for increase / decrease.

### For UG courses:

Sl.No.	Department	2015-2016			2014-2015			2013-14			2012-13		
		AI	NSA	DR	AI	NSA	DR	AI	NSA	DR	AI	NSA	DR
1.	Electronics & Communication Engineering	120	104	87	120	96	80	120	84	70	120	98	81.6
2.	Computer Science and Engineering	120	106	89	120	93	77.5	120	110	91.6	90	87	96.6
3.	Information Science and Engineering	60	50	84	60	54	90	60	36	60	60	32	53.3
4.	Mechanical Engineering	180	165	92	180	161	89.4	120	104	86.6	120	116	96.6
5.	Civil Engineering	180	161	90	180	147	81.66	120	114	95	120	115	95.8

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### For PG courses:

Sl.No.	Department	2015-2016			2014-2015			2013-14			2012-13		
		AI	NSA	DR	AI	NSA	DR	AI	NSA	DR	AI	NSA	DR
1.	Master of Business Administration	60	22	37	60	45	75	60	44	73.3	120	33	27.51
2.	VLSI Design	18	02	11	18	08	44.44	24	24	100	24	23	95.8
3.	Computer Science & Engineering	18	0	00	18	11	61.11	18	18	100	NA	NA	NA
4.	Machine Design	18	01	05	18	10	55.55	36	31	86.1	36	31	86.1
5.	Construction Technology	18	18	100	18	18	100	18	18	100	NA	NA	NA
6.	Structural Engineering	24	19	80	24	24	100	24	23	95.8	24	24	100

AI: Approved Intake

NSA: Number of Students Admitted

DR: Demand Ratio

NA: Not Applicable

**2.1.7** Was there an instance of the College discontinuing a programme during last four years? If yes, indicate the reasons.

- MTech (Machine Design) programme in Second Shift was closed in 2014.
- MTech (VLSI) programme in Second Shift was closed in 2014.
- BE in Mechanical Engineering programme Second Shift was closed in 2014.
- BE in Civil Engineering programme Second Shift was closed in 2014.

**Reason:** College wanted to have only general shift programmes as the same programmes are available in general shift.

## 2.2 Catering to Student Diversity

### 2.2.1 Does the College organize orientation / induction programme for freshers? If yes, give details of the duration of programme, issues covered, experts involved and mechanism for using the feedback in subsequent years.

**YES,**

- Freshly admitted students are made to undergo an orientation program which covers:
  - Introduction about the college.
  - Objectives and outcome of the programme with instructions to the students to come out with their own objectives to smoothly complete B.E. degree programme.
  - About the syllabus and scope of the programme to which they are admitted.
  - Availability of counselling facility to overcome home sickness, depression and stress induced due to academic work pressure.
  - Rules and regulations to be followed in hostels, transport, library in particular and college campus in general.
  - Awareness about Anti-ragging and preventive measures to be taken against possible ragging.
  - Awareness about prevention of harassment on girl students.
  - Information about the grievance redressal cell.
  - EQ and IQ test of students.
  - Assessment of Communication skill and language proficiency.
  - Techniques for Memory improvement.
  - Awareness about personal hygienic conditions.
  - Awareness about importance of time management.
  - Soft skill and personality development programmes.
  - Fulfilling eligibility criteria for placement.

Details of the experts, topics, duration, etc are shown in the orientation schedule enclosed as Annexure – VIII.

### 2.2.2 Does the College have a mechanism through which the “differential requirements of student population” are analyzed after admission and before the commencement of classes? If so, how are the key issues identified and addressed?

- Based on the marks obtained by the students in each subjects from the qualifying examinations, the differential requirements of the students will be analyzed & accordingly suitable teaching measures will be taken.
- Especially special classes on English and Mathematics are conducted prior to the commencement of the programme to fill the differential

lacking.

- Similar courses for the lateral entry students are conducted to enable them to understand basics in engineering subjects properly.

### 2.2.3 Does the College provide bridge /Remedial /add - on courses? If yes, how are they structured into the time table? Give details of the courses offered, department-wise/faculty-wise?

- Special classes on English and Mathematics are conducted prior to the commencement of the programme to serve as bridge courses.
- Communication Skill Development and Personality Development Programmes are conducted compulsorily for all the students of the college.
- Bridge courses for the lateral entry students are conducted in mathematics to enable them to understand basics in engineering subjects properly.
- Remedial classes are conducted for those students who are performing poor in the internal tests.
- Enrichment courses like seminar, conferences, guest lectures and workshops are arranged by the departments.
- Add-on classes are conducted during the vacation for those subjects, which are considered as tough subjects by students.
- Audit courses and training programmes are conducted.
- Certificate courses are offered in all the departments from 3<sup>rd</sup> Semester onwards and forms a part of the curriculum.

### 2.2.4 Has the College conducted a study on the incremental academic growth of different categories of students; - student from disadvantaged sections of society, economically disadvantaged, physically challenged and slow learners etc.? If yes, give details on how the study has helped the College to improve the performance of these students.

- The college has well structured counseling cell headed by a Chief Mentor and a team of counselling coordinators. The services of the professional counsellor are also being utilized for counselling of the students.
- Counsellors give advice and guidance to the students for their comprehensive growth and achievement.
- Students who are identified as slow learners are given special attention and are advised to give maximum importance to critical subjects to prevent from being detained.
- The socially and economically deprived students are encouraged by supporting with scholarships, fee reimbursement and concession

facilities.

- Book bank facility and study materials are also provided to improve their performance.
- Special classes are conducted for slow learners and weak students after the class hours.
- Students not passing in a subject during semester end exam can write it again in make-up exams.
- Supplementary semester during summer break have more focused attention of faculty on students due to smaller group of students.
- Students who are unable to complete the complete a course during regular semester can complete it by registering for the same in supplementary semester.
- The concept of peer tutoring is introduced to help the slow learners to understand the concepts better from their peers and fast learners to earn monetary benefits, a certificate and deepening their understanding of the material by learning how to communicate it to others.

All these measures have improved the result of the students substantially.

### 2.2.5 How does the institution identify and respond to the learning needs of advanced learners?

The teachers identify fast learners by their performance in the internal tests, final examinations, interaction in the class room and by their participation in the academic programs like conferences, quiz etc.

The college follows CBCS for the autonomous programmes and permits a fast learner to complete the programme a little early.

The college has adopted following methods to respond to special learning needs of advanced learners.

- They are allowed to participate in the workshops, guest lectures and seminars organized by college and by other institutions.
- They are encouraged to develop projects under the guidance of our faculty.
- They are allowed to participate in the technology oriented competitions like tech fest, quiz, conferences for paper presentations at university, and state, national and international level.
- They are allowed to participate in the training activities organized by the industries.
- College has MOUs with leading industries and R&D centers through which advanced learners are encouraged to take up mini

and major projects.

- Advanced learners are encouraged to take lead role in the various technical and cultural activities through the department forums.

### 2.2.6 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

- College follows government policies for the differently abled students during the admission process. Further, Special arrangements are made at the time of tests and examinations to enable them to perform better.
- Wheel Chair and Ramps are provided for the convenience of the differently enabled students.

## 2.3 Teaching-Learning Process

### 2.3.1 How does the College plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan and evaluation blue print, etc.)

#### a. Academic Calendar:

- A common academic calendar of events is prepared in the beginning of every semester and published in the notice boards and college website.
- Academic calendar of events includes academic schedule like starting and ending dates of the semester, commencement of theory and practical examinations, internal test dates, student feedback, parent teacher meeting, working days, sports & cultural event details and holidays. (Annexure IV –Academic calendar of events).

#### b. Teaching Plan:

The teaching plan is prepared for every semester and procedure is as follows:

- Principal conducts meeting of all the HODs to discuss about the academic activities as scheduled in the calendar of events.
- At department level, each faculty member is requested to submit his / her choice of subject for the theory as well as practical classes in a standard format labeled subject preferential list & allocation.
- The HOD convenes a staff meeting to discuss the subject preferential list of teachers and allocates both theory and practical subjects to each faculty in a transparent manner. A timetable committee is formed with the Principal as chairman

and coordinator from each department as members and is responsible for the preparation of the time table.

- Faculty members prepare lesson plan for the subjects allocated to them. Lesson plan includes details such as number of hours available, period wise coverage of syllabus, tutorial details, special classes needed, text & reference books used etc.
- The faculty members are provided with attendance book, syllabus, calendar of events and teachers diary.
- Teachers have to fill the teacher's diary showing clearly the day and date on which the classes are taken and actual portion of the syllabus covered. HODs have to scrutinize the teacher's diary with respect to the lesson plan. If there is any difference between the lesson plan and its execution, corrective measures are initiated.
- Students' feedback is taken on every course after each test/CIE to evaluate course performance. The feedback and the remarks of the students are sent to respective HOD and concerned teachers for corrective measures.

### **c. Evaluation Blue Print:**

- In case of non-autonomous courses, three internal tests are conducted during the semester. In autonomous courses, two CIEs are conducted.
- Test papers are evaluated by the concerned faculty and performance in the test is communicated to the students for clarification.
- Assignments, Quiz, Self-study topics are identified by the faculty and given to the students during the semester.
- Course material is prepared by teachers in their respective subjects and made available to students.
- HODs conduct staff meetings and Principal conducts HODs meeting at regular intervals to monitor the academic performance and progress during the semester.
- Semester end practical and theory examinations are conducted as per the guidelines and procedure laid down by the university. For practical examinations, two examiners are appointed (one internal and one external compulsorily) by the university. The evaluation of examination papers of theory courses are conducted by the university by inviting the eligible faculty from different institutions and results are declared as per the schedule. The university has adopted Digital Valuation System (DVS).

### 2.3.2 Does the College provide course outlines and course schedules prior to the commencement of the academic session? If yes, how is the effectiveness of the process ensured?

Yes, the institute provides the course outline and the course schedule to the students prior to commencement of the academic session. Institute provides copy of the syllabus which contains the course outlines, to all the students and it is also uploaded in the institute's web site.

Lesson Plan prepared for each course presents the plan of delivery of all topics in syllabus. Preparation of Teaching Diary under ISO norms, for each subject ensures the delivery as per the planned schedule. Fortnightly, it is checked by the Head of the department and the progress of content delivery ensured. The implementation of the process is discussed in the committee meetings and the effectiveness of the process is ensured. The details of foundation electives, open electives and audit courses are made available to the students well in advance so as to enable them to make their choice.

### 2.3.3 What are the courses, which predominantly follow the lecture method? Apart from classroom interactions, what are the other methods of learning experiences provided to students?

The courses are taught through lecture method using chalk-blackboard, LCD projector, charts, models, etc. However the following methods are adopted to improve the students learning process:

- Integrated Courses are introduced to expose the students to the hands-on experience
- Peer Tutoring concept is introduced among the students.
- Power Point Presentations to improve the effectiveness of their learning.
- Virtual lab facility which is available in the college.
- Video lectures of Laboratory courses are prepared.
- NPTEL & EduSat videos to demonstrate technical concepts.
- Encouraged to refer online journals and e-books which are available in the college library.
- Encouraged to develop mini projects under guidance of faculty members.
- Encouraged to participate in quiz competitions, seminars, technical paper presentations etc.

### 2.3.4 How is 'learning' made more student-centric? Give a list of participatory learning activities adopted by the faculty that contribute to holistic development and improved student learning, besides facilitating life-long learning and knowledge

### management.

- The concept of peer tutoring makes the learning more student centric as the students feel comfortable with their peers than the teachers.
- The development of learning management system using Moodle provides a platform for the students to discuss and interact effectively with teachers and peers.
- The video lectures prepared by the expert teachers help the students to learn the concepts effectively in their leisure time.

- **Class Room Teaching:**

- Faculty uses teaching aids such as Black/green board, LCD projector, white board with marker pen, charts, physical models etc to convey the information to students during class room interactive teaching.
- The students are encouraged to ask questions to get their doubts cleared.
- The assignments and quizzes will have to be answered by students on their own, which makes learning more students centric.

- **Laboratory Classes:**

- Students have to study several laboratory courses during each semester as per the curriculum.
- The provision of integrated course helps the students to understand the theoretical aspects with practical exposure.
- Laboratory manuals are prepared for all the laboratories to give guideline to the students to understand and carry out experiments.
- The work done by students in laboratory classes has to be recorded in a laboratory record book which in turn is evaluated by the concerned faculty. In addition a laboratory log book is also maintained to monitor the progress of students in each laboratory.
- To encourage independent learning students are persuaded to deliver seminars not only on course related topics but also on emerging areas of technology.
- Virtual Lab facilities sponsored by MHRD, GOI and supported by IITs and IISc is being used by the students to explore and collaborate in an interactive manner.

- **Project-based:**

- The students are encouraged to carry out mini projects in their area of interest and present technical papers in conferences.
- The students have to take up a project work as a part of their curriculum during the 8<sup>th</sup> semester. Such projects are carried out under the guidance of teachers. In addition students can also take help from outside resource persons and facilities from industries, R & D centers and reputed colleges like IITs and IISc.
- Students are encouraged to participate in Tech fests and present their projects/models.
- The institution organizes project exhibition and completion every year. The best projects are awarded with cash prize and certificates.

### 2.3.5 What is the College policy on inviting experts / people of eminence to provide

### lectures / seminars for students?

- Experts are invited based on the requirement given by the respective departments to teach subjects/lecture on emerging areas.
- Travelling expenses, accommodation and honorarium will be taken care by the college.
- Generally experts from R & D centers, industries, reputed institutions etc are invited to deliver lectures /seminars for students.
- Every department has a student forum through which expert lectures, seminars, symposium, technical talks, competitions, quizzes, etc are arranged

### 2.3.6 What are the latest technologies and facilities used by the faculty for effective teaching? Ex: Virtual laboratories, e-learning, open educational resources, mobile education, etc.

Following are the Technologies and facilities available and used by the faculty for effective teaching.

- Our institution has been recognized as the Nodal Center for Virtual Lab facilities sponsored by MHRD, GOI and supported by IITs and IISc. This facility is being used by staff and students
- Video lectures are prepared for effective teaching of practical/laboratory courses.
- Use of modern teaching aids like LCD projectors, Internet enabled computer and Wi-Fi enabled laptops.
- Class notes are uploaded to the college website in the form Learning Management System and become an open courseware for the faculty and students.
- Open educational resources (access to e-journals and e-books) are available in the college library.
- The faculty members are encouraged to enroll and use open courseware and MOOCs.
- NPTEL Videos are available in the college library for the ready reference by the faculty.
- The faculty members are also encouraged to use EDUSAT materials available on the VTU E-learning portal.
- 45 MBPS Wi-Fi internet facilities are available in the campus for all these applications.

### 2.3.7 Is there a provision for the services of counselors / mentors/ advisors for each class or group of students for academic, personal and psycho-socio guidance? If yes, give details of the process and the number of students who have benefitted.

- College has an effective counselling system in which 15 to 20 students are assigned to a particular teacher who has to counsell a student in a systematic way.
- All the students of the college are benefitted by this process.
- Counsellor maintains a progress report of each student. Progress report contains all personal, academic, curricular and other details of the student.
- A student who is assigned to a particular counsellor in the first semester

continues to receive counselling from the same counsellor till the student completes the programme.

- Information about the student performance is sent to parents through SMS/Phone/Email.
- College regularly organizes Parents-Teachers Meet where parents can interact with counsellors and course teachers about their ward's performance.
- Performance Evaluation of students in the examination/SEE is carried out and special Coaching classes are held for the benefit of weaker students.
- Students who are at the risk of drop out are given special attention and are advised to give maximum importance to critical subjects to prevent from being detained.
- The Grievance Redressal Cell addresses grievances regarding the academic and other matters like hostel, transport, canteen problems.
- A full-time professional counsellor is engaged by the institution for helping the students to solve their psycho-social related issues.

**2.3.8 Are there any innovative teaching approaches/methods/ practices adopted/put to use by the faculty during the last four years? If yes, did they improve the learning? What methods were used to evaluate the impact of such practices? What are the efforts made by the institution in giving the faculty due recognition for innovation in teaching?**

**Following are the innovative teaching methods adopted by the faculty**

- Teachers are encouraged to use Power Point Presentations to improve the effectiveness of their teaching.
- Teachers are encouraged to use virtual lab facility which is available in the institution.
- Teachers are permitted to use Videos to demonstrate technical concepts.
- Teachers generally refer online journals and e-books which are available in the college library.
- Faculty members are encouraged to use teaching aids and develop new teaching aids.
- Faculty members guide the students to develop mini projects.

**Impact of innovative practices on student learning:**

- Learning process becomes student centric.
- Students get greater exposure to the modern methods and can understand the subject better.
- It helps the students to increase self learning potential.

**Recognition of faculty by the institution:**

- Faculty members are encouraged to use technology by providing laptops.

- Faculty members are encouraged to enhance their knowledge by deputing them to various workshops, FDPs and conferences at National and International levels.

### 2.3.9 How does the College create a culture of instilling and nurturing creativity and scientific temper among the learners?

- The department level forums and clubs organize various competitions for students to nurture and showcase their talent in both curricular and co-curricular aspects.
- The college encourages the students to participate in various national and international level fests to showcase their talent and innovative ideas.
- College organizes “**Project Exhibition**” for the final year students and prizes are given to innovative projects. Branch wise jury is called from outside to evaluate the projects and to award the prizes for the best projects.
- College encourages the involvement of students in mini projects and awards are given to innovative mini projects.
- Students are encouraged to think about the alternate solution to a problem, new method of solving a problem etc. as applied to numerical examples in their course work.
- College sponsors students to present their innovative ideas in the form of technical papers, national and international conferences.
- College helps the students in getting the sponsorship for their project work from the funding agencies like KSCST, ISHRAE etc.
- College also helps students to secure training in industries.
- College arranges internship of the students in industries.

### 2.3.10 Does the College consider student projects a mandatory part of the learning programme? If so, for how many programmes is it made mandatory?

Yes, All the programmes of UG and PG have mandatory student projects.

#### \* Number of projects executed within the College:

- Maximum of 4 students and minimum of 2 students form a project batch at the UG level and at the PG level every student takes up an individual project work.
- 500 projects at the UG level have been executed and 300 PG level projects during the last four years.

#### \* Names of external institutions associated with the college for student project work

- ISRO
- Indian Institute of Science
- IIT, Mumbai
- BEML
- NAL
- DRDO
- BEL
- Robert Bosch
- MSR School of Advanced Studies

\* **Role of the faculty in facilitating such projects**

- Faculty guides the students in identifying the problem, preparing the methodology, design and analysis of the project work.
- Faculty guides the students as internal guide and monitors the progress of the work. If need arises, external guides are involved.
- Faculty will identify and coordinate with the external guides and the organization in which they are working.

**2.3.11 What efforts are made to facilitate the faculty in learning / handling computer-aided teaching/ learning materials? What are the facilities available in the College for such efforts?**

**Following are the computer aided facilities available for teaching:**

- LCD Projectors and smart boards are provided which can be used by the teachers to teach using Power Point Presentations to improve the effectiveness of their teaching.
- NPTEL videos are provided in the college library for the use of staff and students.
- Video lectures of lab courses are prepared and used by staff
- Virtual lab facility.
- Online journals and e-books available in the college library.
- LMS facility in the college website for uploading the class notes and study materials.
- Discussion forums for interacting with students in the college website.

**2.3.12 Does the College have a mechanism for evaluation of teachers by the students / alumni? If yes, how is the evaluation used in achieving qualitative improvement in the teaching-learning process?**

Yes,

- The evaluation of the teachers is done by taking online feedback from the students twice in a semester. The feedback is analyzed by the HOD and Principal and informed to the teacher through the

HOD. Whenever necessary, faculty are advised for corrective actions.

**2.3.13 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If yes elaborate on the challenges encountered and the institutional approaches to overcome these.**

- A common academic calendar of events is prepared in the beginning of the semester.
- Generally, the curriculum is completed within the planned time. However, due to reasons beyond the limits of the institution, if valuable working days are lost, the institution works on Saturdays and Sundays to make up the missed classes.

**2.3.14 How are library resources used to augment the teaching-learning process?**

- College library is fully computerized and uses LIBSOFT software.
- More than 40500 volumes with 7200 titles are available in the college library.
- 10000 e-journals have been subscribed and 14000 e-books available.
- More than 135 NPTEL video courses as learning materials are available which are developed by Professors from IITs and IISc.
- Online Public Access Catalogue (WEB-OPAC) is being followed in the library.
- Reference section is available for faculty and students.
- Separate Library facility is available for MBA in addition to main library.
- Library works beyond the college working hours for the benefit of staff and students.
- Daily newspapers, magazines and journals are subscribed.
- Reprographic facility is available.
- College is member of VTU Consortium, DELNET, CMTI and CSI Communication.
- A digital library and E-learning facility are also available.
- Book Bank facility for SC/ST students funded by Social Welfare Department, GOK.
- College has book bank facility for all students.
- Learning Management System (LMS) facility is available.
- The college library has EDUSAT facility sponsored by VTU and is supported by ISRO

**2.3.15 How does the institution continuously monitor, evaluate and report on the quality of teaching, teaching methods used, classroom environments and the effect on student performance.**

**Monitoring of Teaching-learning Process:**

- Dean (Academic) regularly checks and verifies the syllabus coverage and ensures that the entire syllabus is covered within the prescribed time limit.
- HODs regularly monitor the progress of syllabus coverage and also the performance of the students through staff meetings.

### **Evaluation of Teaching Process:**

- After each internal test/CIE, performance of the student is analyzed by the course teachers. HODs shall go through the test result analysis to initiate corrective measures.
- Students' feedback is taken on every course after each test/CIE to evaluate course performance. The feedback and the remarks of the students are sent to respective HOD and concerned teachers for corrective measures.
- After the results are declared by the University for Semester End Examinations, the result analysis is carried out and reason for poor performance, if any, is evaluated.

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Various Parameters considered while taking feed back by students are as follows:

Q.No	Parameters	Rating		
		5	3	1
1	What is your opinion about the teaching skills of your teacher with respect to the course content?	Excellent	Good	Satisfactory
2	Does your teacher come well prepared for the class?	Always	Sometimes	Never
3	How is his/her black board work?	Neat and Clear	Satisfactory	Shabby
4	Does your teacher maintain time in the class?	Always	Sometimes	Never
5	Syllabus coverage (in units)	More than 2	2	Less than 2
6	Does he/she encourage you to ask questions in the class?	Very much	Not enthusiastic	Never
7	Does he/she answer your questions in the class or at least in the next class?	Always	Evades	Never
8	Does he/she provide Study material for the subject?	Always	Sometimes	Never
9	Does he/she solve Problems from Question papers?	Always	Sometimes	Never
10	Does he/she admit mistake when it is pointed out?	Always	Sometimes	Never
11	Does your teacher make up classes missed during his/her leave period?	Fully	Not completely	Never
12	In general, how is the students' attitude during his/her class?	Attentive	Not attentive	Noisy
13	How is his/her assessment of your sessional books (blue books)?	Very Correct	Correct	Erratic
14	Does his/her presentation is audible and clear?	Very Good	Good	Satisfactory
15	Would you recommend him/her to be the teacher for your juniors?	Definitely	Can't Decide	Never

## Student Feedback on Course Objectives and Course Outcome

Q.No	Parameters	Rating		
		5	3	1
1	Do you think the Syllabus fits into the stated Course Objectives?	100%	75%	50%
2	Are you of the opinion that stated Course outcomes are achieved?	100%	75%	50%
3	Whether the course content was useful?	Highly	Moderately	Less
4	Was the course content helpful for your knowledge enhancement?	Strongly agree	Agree	Disagree
5	Was the course content enhanced your skills?	Strongly agree	Agree	Disagree
6.	Do you feel the course to be blended with practical sessions/virtual lab?	Strongly agree	Agree	Disagree

At the end of the each academic year, a self appraisal is taken from each faculty member. Feed back is also taken from parents.

## 2.4 Teacher Quality

2.4.1 What is the faculty strength of the College? How many positions are filled against the sanctioned strength? How many of them are from outside the state?

### Details of sanctioned and filled faculty positions

Sl No	Department	No. of Faculty		
		Sanctioned	Filled	Outside the state
1.	Mechanical Engg	38	39	02
2.	Civil Engg	38	38	00
3.	Computer Science and Engg	28	28	01
4.	Electronics and Comm Engg	31	31	01
5.	Information Science and Engg	12	12	00
6.	MBA	08	08	01
7.	Physics	06	06	00
8.	Chemistry	06	07	00
9.	Mathematics	09	10	00

2.4.2 How are the members of the faculty selected?

- Recruitment for all cadres of teaching and non-teaching staff is done as per the AICTE norms from time to time.
- The recruitment is done by inviting applications from the eligible candidates through the news paper advertisements. For higher level posts which require special skill and talents, suitable candidates are directly contacted and invited for a discussion.
- The screening committee screens the applications and eligible candidates are shortlisted and are called for a demo. The expert committee conducts an interview of the short listed candidates for recommending to the managing committee. The management committee further conducts personal interview and issues offer letters to the selected candidates. Once the acceptance of the candidates is taken, the appointment order will be issued.

2.4.3 Furnish details of the faculty

Details of the qualified faculty on roles are given below:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	N A						
Ph.D.	14	04	01	-	00	-	19
M.Phil.	-	-	02	02	-	01	05
PG	04	01	21	10	67	52	155
Temporary teachers							
Ph.D.	NIL						
M.Phil.							
PG							
Part-time teachers							
Ph.D.	NIL						
M.Phil.							
PG							

2.4.4 What percentage of the teachers have completed UGC-CSIR-NET, UGC-NET, and SLET exams? In that what percentage of teachers are with PG as highest qualification?

NCET is a professional institution offering Engineering and Management programmes. 88 % of teachers are having PG (M.Tech/ME) as highest Qualification. Remaining 12% are having Ph.D as highest qualification.

2.4.5 Does the College encourage diversity in its faculty recruitment? Provide the following departments-wise details.

Department	% of faculty who are product of the same College	% of faculty from other Colleges within the State	% of faculty from other States	% of faculty From abroad
Mechanical	23	95	05	00
CSE	32	96	4	00
ISE	25	100	00	00
Civil	26	97	03	00
EC	26	94	06	00
MBA	00	88	12	00
Mathematics	00	100	00	00

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Physics	00	100	00	00
Chemistry	00	100	00	00

2.4.6 Does the College have the required number of qualified and competent teachers to handle all the courses for all departments? If not, how do you cope with the requirements? How many faculty members were appointed during the last four years?

Yes. All faculty members are having required qualification and experience.

2.4.7 How many visiting Professors are on the rolls of the College?

No visiting Professor is on the rolls of the college.

2.4.8 What policies/systems are in place to recharge teachers? (eg: providing research grants, study leave, nomination to national/ international conferences/Seminars, in-service training, organizing national/international conferences etc.)

Following are the policies adopted by the institution for the overall growth of faculty members:

- Study leave / Deputation is given to teaching staff to pursue higher studies.
- Financial support to teaching staff with deputation facility to attend national and international conferences to present papers in India and Abroad.
- Institution provides financial support to become members of Professional bodies
- The college encourages faculty members to apply for research grants by partly funding the projects.

2.4.9 Give the number of faculty who received awards / recognitions for excellence in teaching at the state, national and international level during the last four years.

Sl.No.	Name of Faculty	Achievement	Agency
Dept. of Computer Science & Engineering			
1.	Dr. Y S Kumaraswamy	Selection Committee member	ISRO, NIHAS, UGC,
		Invited Talks	BMSCE/ AIT/CMRIT /NCET /KVGCE / NHCE / Acharya IT
		Coordinator and Session Chair - International & National Conferences	DSCE and other colleges
		Reviewer for International Journals	Elsvier, Springer, IEEE, ASCE
2.	Dr. Shantakumara B.	Best Paper	IRP, Malaysia

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	Patil	Best Paper	IRP, Thailand
3.	Dr. Premjyoti G. Patl	Best Paper	IRP, Malaysia
		Best Paper	IRP, Thailand
4.	Mr. Gopinatha A R	Best Paper	IRP, Thailand
Dept. of Information Science & Engineering			
01.	Dr. Shivanand M. Handigund	Invited for a special Talk	Canada-China e-business Forum
		Invited tutorial	Las Vegas, USA
		Invited tutorial	University of California, Berkeley, USA
		Invited tutorial	NIT, Surathkal, Mangalore, India
		Invited tutorial	NIT, Surathkal, Mangalore, India
		Two M.Tech projects won 41 <sup>st</sup> and 44 <sup>th</sup> all India gold medals in the national design competition	National Design research Forum(NDRF), Institution of Engineers India (IEI)
		conducted one day workshop on neoteric view of software development life cycle (Sole presenter)	Malnad Engineering College (MEC), Hassan
		11 papers are enlisted	DBLP
02.	Prof. Roopashri Tantri	Session Chair Person – International Conference	Nanyang Technological University, Singapore
		Session Chair Person – National Level Symposium	Geetham University, Doddaballapur
		Technical Committee Member-International Conference	International Association of Computer Science and Information Technology, UAE
Dept of Mechanical Engineering			
1.	Dr. N Kapilan	Project of the year award 2014-15	KSCST
		Best paper of the year award	NIT, Calicut
		Best paper award	VV University, Chennai
		Project of the year award 2012-13	KSCST
		Judge for paper presentation competition	Reva ITM, Bangalore
		Resource person for FDP	SVCE, Bangalore
		Resource person for FDP	MSRIT, Bangalore
		Judge for CAD modeling competition	NMIT, Bangalore
2.	Dr. S G Gopala Krishna	Listed in Asia’s Who is who	
		Invited talk during ISTE FDP	PESIT, Bangalore
		Session Chair Person – International Conference	DSCE, Bangalore
		Invited Talk – International	DSCE, Bangalore

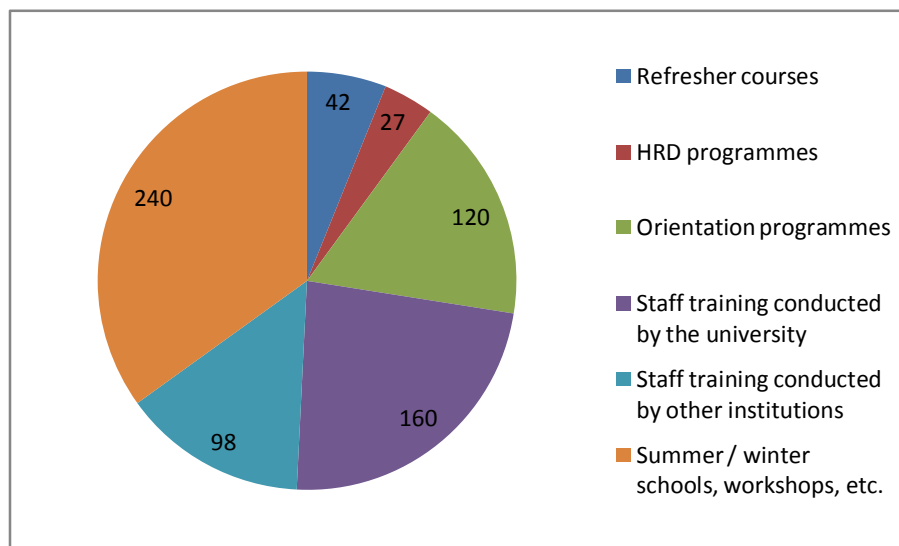
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		Conference	
		Won the prize for the Best Project	National Design, Research Forum, The Institution of Engineers (India) & Rajiv Gandhi College of Technology, Bangalore
3.	Dr. N.G.S Udupa	Won the prize for the Best Project	National Design, Research Forum, The Institution of Engineers (India) & Rajiv Gandhi College of Technology, Bangalore
		Session Chair – International Conference	NCET, Bangalore
		Session Chair – International Conference	IIT, Madras
		Resource person- International Conference	IIT, Madras
		Session Chair – International Conference	Oxford College of Technology, Bangalore
		Best paper award- International Conference	IIT, New Delhi
3.	Dr. M S Govinde Gowda	Live lecture delivery on turbo machines	VTU E-Learning
		Technical talk on Turbo machines	Sambram IT, Bangalore
		Resource person for Induction training programme	CBIT, Kolar and SRSIT, Bangalore
		Session Chair Person – International Conference	MIT,Manipal
		Resource person – Hindu Edu plus	KGF, Kolar
		Resource person- Excellence towards Teaching	SRSIT and CBIT, Bangalore
		Session Chair – International Conference	NCET, Bangalore
Department of Civil Engineering			
1.	Dr. Rajendra S	Resource Person – one Day workshop	CBIT, Kolar
		Resource person- two day workshop	CMRIT, Bangalore
		Invited Technical Talks-	ACC, UltraTech, and other cement companies

Department of MBA			
1.	Dr. N.Sandhya	Session Chair Person – International Conference	RV College of Management, Bangalore
		Session Chair Person – International Conference	PESIT, Bangalore
		Session Chair Person – International Conference	Indian Academy, Bangalore

2.4.10 Provide the number of faculty who have undergone staff development programmes during the last four years. (Add any other programme if necessary)

Academic Staff Development Programmes	Number of faculty nominated
Refresher courses	42
HRD programmes	27
Orientation programmes	120
Staff training conducted by the university	160
Staff training conducted by other institutions	98
Summer / winter schools, workshops, etc.	240



2.4.11 What percentage of the faculty have

- Invited as resource persons in Workshops/Seminars/ Conferences organized by external professional agencies: - **18%**
- Participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies: - **65%**

- Presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies: - 40%
- Teaching experience in other universities/national institutions and others: - 40%
- Industrial engagement : 15%
- International experience in teaching : 2%

2.4.12 How often does the College organize academic development programmes for its faculty, leading to enrichment of teaching-learning process?

- Curricular Development : Once in a semester at department level
- Teaching-learning methods: One programme in a semester at college level
- Examination reforms : Once in a year at college level
- Content / knowledge management : Once in a semester at department level
- Any other (please specify) : National and International conferences, Seminars, symposiums and expert lectures at department levels at regular intervals.

2.4.13 What are the teaching innovations made during the last five years? How are innovations rewarded?

- Teachers are encouraged to use Power Point Presentations to improve the effectiveness of their teaching.
- Teachers are encouraged to use virtual lab facility which is available in the college.
- Teachers are permitted to use Videos to demonstrate technical concepts.
- Teachers generally refer online journals and e-books which are available in the college library.
- Faculty members are encouraged to use teaching aids and develop new teaching aids.
- Students are encouraged to develop mini projects under guidance of faculty members.

2.4.14 Does the College have a mechanism to encourage

- \* Mobility of faculty between institutions for teaching?
- \* Faculty exchange programmes with national and international bodies? If yes, how have these schemes helped in enriching quality of the faculty?

Members of the faculty are encouraged to present guest lectures, be resource persons for seminars, conferences, training programs, workshops etc.

## 2.5 Evaluation Process and Reforms

2.5.1 How does the College ensure that all the stakeholders are aware of the evaluation

### processes that are operative?

- Faculty members are part of evaluation process for both autonomous and non-autonomous programmes. They are involved in conduction and evaluation of test, quiz, assignments, semester end examinations and they are aware of the evaluation process.
- The students are given awareness about the evaluation process through circulars, handbooks, university and college websites. Orientation programmes for the fresh students who have joined the college are being conducted to give awareness about the study in professional colleges, examinations and evaluation.
- In case of non-autonomous courses, three internal tests are conducted during the semester. In case of autonomous courses, two CIEs are conducted. The entire process of design and implementation is carried out by faculty under the guidance of Principal/COE.
- At the end of the semester, final examination/SEE is conducted to assess the performance of students.
- After each internal test/CIE, performance of the student is analyzed by the course teachers. HODs shall go through the test result analysis to initiate corrective measures.
- After the results are declared, the result analysis is carried out and reason for poor performance, if any, is analyzed.
- Students who have any grievances related to their results shall apply in the prescribed form and on the payment of prescribed fee for the redressal within the stipulated time. This information is made known to the students through the circulars and handbooks.
- The students shall be permitted to take photocopies of his/her evaluated answer scripts and in case of any discrepancy with regard to totaling, the same shall be rectified.
- There shall be a provision for revaluation of the answer scripts by a valuer other than the earlier valuer.
- There shall also be a provision for Challenge Revaluation of the answer scripts. The Challenge Revaluation shall be jointly by an External Valuer and an internal subject expert other than the earlier valuer.

### 2.5.2 What are the major evaluation reforms initiated by the College and to what extent have they been implemented in the College? Cite a few examples which have positively impacted the evaluation management system?

- The college has implemented online filling of the examination form.
- Online test and evaluation are conducted for the subjects like CIP, CIV, CSD and PDP.

- Question papers are issued from the centralized question bank. The question papers are generated 30 minutes before the commencement of the examinations.
- Transparent and unique evaluation process.
- Examination software is being used at the college level.
- Results are announced through the website as well as through SMS.
- Development of Digital valuation system is under development.
- The college has also implemented the ERP for maintaining the student records. SMS about the student performance are sent to the parents through this software.

### 2.5.3 What measures have been taken by the institution for continuous evaluation of students and ensuring their progress and improved performance?

**Continuous Internal Evaluation (CIE) for Theory Courses:** The CIE shall be conducted by the faculty handling the Course/Course Co-ordinator. The Course faculty to spell out the components of CIE to the students in advance, maintains transparency in its operation, declare the evaluation results in time and then return the answer scripts and assignment sheets to them; also the faculty solve the questions from these test papers during the class/tutorials for the benefit of students. The CIE is generally based on two tests & quiz/assignment conducted.

Two CIEs shall be conducted for 40 marks each and be reduced to 20 marks. One quiz and one assignment of 10 marks each shall be conducted & the marks be reduced to 05.

As a part of CIE, the faculty members can also use Alternative Assessment Tools (AAT) such as term papers, and problem solving in place of quiz/assignment (for max. of 10 marks). It is the responsibility of the faculty to obtain prior approval for implementing AAT from the concerned HOD and duly notify the same to the respective class.

The Total marks of CIE shall be 100 (two CIEs of 40 marks each & One quiz and one assignment of 10 marks each). However, in genuine cases, for the benefit of students, make up CIE may be conducted with a payment of fee fixed by the college. In case of students appearing for the makeup CIE, the sum total of the best two tests shall be considered for awarding CIE.

**CIE for Laboratory Courses:** The CIE for laboratory course is conducted for 50 marks based on the laboratory exercises/experiments along with the submission of laboratory records/report and an internal test.

**CIE for Integrated Courses :** The CIE for integrated course is split into two

components namely Theory and Practical with an equal weightage. For theory component - there shall be two CIEs and one quiz conducted. For practical component, the performance in the Lab/workshop/drawing etc shall be evaluated in two phases, namely, attendance, conducting lab experiments, Lab record & lab test and Viva-voce. Submission of lab record and attending the lab test is compulsory. In addition, securing 40% marks in both theory and practical component is mandatory for passing the course. The lab test and Viva-voce to be conducted by two examiners i.e. a course teacher/course coordinator/internal subject expert/external examiner.

The concerned HOD shall maintain the record of finalized marks for Lab test/ Viva-voce. A student shall secure a minimum of 40% in CIE and should have 85% attendance in each theory and practical components in case of integrated courses; otherwise the student shall not be eligible for SEE.

For improving the performance make up examination facility is available to the students who fulfill the condition that they should have secured minimum of 60% of marks in CIE.

In addition to regular tests, the students are assessed by regular quizzes, assignments, term papers, mini projects etc. to award final IA marks.

Ex 1. About 10 percent of the students are benefited through the improvement test

Ex 2. With the implementation of the Virtual lab the students are benefited in understanding the concepts with ease and hence are able to perform better.

**2.5.4 What percentage of marks is earmarked for continuous internal assessment? Indicate the mechanisms strategized to ensure rigour of the internal assessment process?**

- 50% of maximum marks for a course are earmarked for CIE.
- CIE is conducted as a centralized process similar to SEE.
- Only two CIEs are conducted which makes the students to study the subject rigorously.
- The students have to study complete syllabus as the question paper permits only internal choice between questions of the module.
- Module 1 and 2 are covered in CIE-1 and module 3 and 4 are covered in CIE-2. The SEE covers all the five modules.
- CIE process is carried out as per the schedule which has been intimated to the students in the beginning of the semester. This allows the students to prepare for CIE process comfortably.
- The seating arrangement of the students, allotment of the invigilators, and question paper generation are completely centralized and executed by the COE.

- The answer booklets of the CIE are issued in the examination hall and pages are serially numbered.
- The CIE process is monitored by CS, DCS and flying Squad members. Malpractices, if any, are referred to the MCCC.
- The CIE process is carried out at the college level by the direction of the COE and question papers are generated from the question bank supplied by the course co-ordinators. The evaluation process is also monitored by the COE and strict adherence to the scheme of evaluation is maintained.
- After every CIE, the course coordinator and also the concerned counsellor interact with students about the performance which helps in improving their performance.
- Parents-Teacher meetings are also conducted after every CIE to explore their wards performance and to take their feedback.

2.5.5 Does the College adhere to the declared examination schedules? If not, what measures have been taken to address the delay?

Yes. The college prepares the calendar of events at the beginning of the semester including the schedules for examinations.

2.5.6 What is the average time taken by the College for declaration of examination results? Indicate the mode / media adopted by the College for the publication of examination results e.g., website, SMS, email, etc.

- Within a week after the completion of the examination, the results are being declared.
- The results are published in the website and also sent through SMS to both students and parents.
- The results are also notified on the college as well as on the departmental notice boards.

2.5.7 Does the college have an integrated examination platform for the following processes?

- \* Pre-examination processes – Time table generation, OMR, student list generation, invigilators, squads, attendance sheet, online payment gateway, etc.
- \* Examination process –Examination material management, logistics.
- \* Post examination process – attendance capture, OMR based exam result, auto processing, generic result processing and certification.

### **Pre-Examination process:-**

- After the notification, Examination form is filled online by the students after the payment of the examination fees.
- The detailed time table for the conduct of examination is designed, generated and displayed on the college/department/hostel notice boards.

- The list of students registered for examination is generated from the Examination Software. This system provides the attendance of students; CIE marks and also generate the list of students eligible to appear for the examination.
- The allotment of rooms, invigilators, squads and other staff required for the conduct of the examination is generated from the software.
- The attendance sheet form, seat allocation layout and absentee statement are prepared using Examination software.
- Question papers for SEE are set by both internal and external examiners for laboratory courses and theory courses the question paper is generated from the central question bank on the day of the examination.

### **Examination Material Management:-**

- The college has designed various forms required for the examination process and the details of these are available in the examination manual. These materials are printed and made available to the examination section.
- On the day of examination, the chief superintendent with the help of the Deputy Chief Superintendent prints the question papers and disburses the packets containing question papers.
- The invigilators receive the duly packed question papers from the chief superintendent. The COE is the in-charge of the control room for the smooth conduct of examination. The invigilators and squad members are vigilant during the examination process for preventing the malpractices, if any.
- The duties and responsibilities of the CS/DCS/RLS/RS/Squad, etc are available in the examination manual.

### **Post Examination process:-**

- The final attendance of the student obtained from the system and the answer books of the students are prepared for evaluation process.
- Each answer book is coded and each packet containing fifteen scripts is also coded.
- The panel of evaluators is provided by the respective chairman of the Board of Examiners. The evaluators, external examiners and moderators are selected from the panel.
- The evaluators are assigned the answer scripts for evaluation.
- The moderation of the evaluated answer scripts are performed by the moderators. If the difference in two evaluations is more than 15, the script is issued for third evaluation.
- After decoding of the answer scripts, the marks are entered into examination software and processed to generate the results.

#### **2.5.8 Has the College introduced any reforms in its Ph.D. evaluation process?**

The college follows the University norms in the process of evaluation of Ph.D

and the reforms implemented by VTU will be followed by the college from time to time. The university has introduced online Ph.D Evaluation system.

**2.5.9 What efforts are made by the College to streamline the operations at the Office of the Controller of Examinations? Mention any significant efforts which have improved process and functioning of the examination division/section?**

- The academic calendar is prepared at the beginning of the semester with detail of schedules for CIE, SEE and results. The schedule is strictly adhered to.
- The CIE process is monitored and conducted with complete transparency and in a fair manner.
- The controller of examination obtains the list of paper setters for all the subjects offered in the semester. Intimations are sent to the paper setters from COE section and question papers are received.
- The complete details of panel of paper setters, date of sending intimation letter and receiving the question papers are maintained in the section.
- The Board of Examiners meeting is scheduled for all the programmes by the controller of examination to scrutinize the question papers received from both internal and external paper setter. The meeting is conducted in the office of the COE and complete confidentiality is maintained.
- Evaluation process is carried out by a team of coordinators selected from various departments, who works under the instructions and supervision of COE.
- The evaluation schedule is prepared by COE and intimated to the chairman, board of examiners. This schedule is strictly followed.
- The evaluated marks are entered into examination software and processing is carried out. The entire processing of results, generation of results sheets, uploading of results to website is carried out under the supervision of COE.
- Complete confidentiality is maintained in the entire examination process.

**2.5.10 What is the mechanism for redressal of grievances with reference to evaluation?**

**Redressal of Grievances related to CIE:**

- After evaluation, students can go through their CIE papers for feedback and clarification if any. If the student is dissatisfied with evaluation process he/she can approach the concerned faculty/HOD. If any discrepancies found in the award of marks, the same shall be referred to another senior subject expert for corrective measures.
- If the performance of the student is not satisfactory in the first two tests, an improvement/additional test is conducted.

**Redressal of Grievances related to SEE:**

- Students who have any grievances related to their results shall apply in the prescribed form and on the payment of prescribed fee for the redressal

within the stipulated time.

- The students are permitted to take photocopies of his/her evaluated answer scripts and in case of any discrepancy with regard to totaling, the same shall be rectified.
- There is a provision for revaluation of the answer scripts by a valuer other than the earlier valuer.
- There is also a provision for Challenge Revaluation of the answer scripts. The Challenge Revaluation shall be jointly by an External Valuer and an internal subject expert other than the earlier valuer.

### **2.6. Student Performance and Learning Outcomes**

#### **2.6.1 Does the College have clearly stated learning outcomes for its programmes? If yes, give details on how the students and staff are made aware of these?**

Yes, the college has clearly stated learning outcomes.

The learning outcomes are:

- ✓ Subject knowledge
- ✓ Employability skills
- ✓ Professionalism
- ✓ Values and Character building
- ✓ Social responsibilities

The learning outcomes are clearly reflected in our vision and mission statement. The learning outcomes are highlighted to the faculty members through staff meeting. The learning outcomes are made aware to the students during the orientation programme, throughout the duration of the course by the faculty members and conducting events which focus on these learning outcomes. The objectives and learning outcomes of each course is specified in the syllabus copy for the ready reference by the students and staff.

#### **2.6.2 How does the institution monitor and ensure the achievement of learning outcomes?**

- College has an effective counseling system in which 15 to 20 students are assigned to a particular teacher who has to counsel a student in a systematic way.
- Counsellor maintains a progress report of each student. Progress report contains all personal, academic, curricular and other details of the student.
- A student who is assigned to a particular counsellor in the first semester continues to receive counseling from the same counselor till the student completes the programme.
- Information about the student performance is sent to parents through SMS/by making phone calls/E mails.

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- College regularly organizes Parents-Teachers Meet where parents can interact with counselors and course teachers about their ward's performance.
- Performance Evaluation of students in the examination/SEE is carried out and special Coaching classes are held for the benefit of weaker students.
- Students who are at the risk of drop out are given special attention and are advised to give maximum importance to critical subjects to prevent from being detained.

### Result analysis for the last four years

Programme : B.E.	Result in %			
	2014-15	2013-14	2012-13	2011-12
Computer Science and Engineering	95	89	96	99
Information Science and Engineering	100	94	100	98
Civil Engineering	96	98	100	100
Electronics and Communication Engg	90	96	89	92
Mechanical Engineering	87	98	99	95
<b>Programme : M.Tech</b>				
Machine Design	100	93	100	100
VLSI Design and Embedded Systems	86	100	100	100
Structural Engineering	100	100	100	94
Construction Technology	100	100		
Computer Science and Engineering	94			
<b>Programme : MBA</b>				
MBA	81	88	74	77

#### • Student Achievements:

- Mr. Raju K Jha, VTU Gold Medal, V V Deshpande Memorial Gold Medal in Civil Engineering during 2013-14 for securing highest marks in the subject Irrigation Engineering and Hydraulic Structures.
- Mr. Praveen G, 5<sup>th</sup> Rank in BE -Mechanical Engineering during 2011-12.
- Ms. Meena Kumari, VTU 2<sup>nd</sup> Rank in MBA.
- Mr.Ram Kumar (1NC11EC086), Mr.Santosh Rao Jadhav

(INC11EC096), Mr. Pavan A.R (INC11EC122) of Electronics and Communication Engineering department has secured 3<sup>rd</sup> place in e-Yantra Robotics Competition held at IIT-B, Bombay. The above students are also got placed as “**Senior Technical Project Assistant**” at IIT-B, Bombay.

- Mr. Megha Nidhi Dahal (INC05IS021) of IS Department has cleared UPSC Civil Service examinations in 63<sup>rd</sup> Rank and Sikkim Public Service Commission Examination with First Rank. He is the only candidate who has cleared UPSC from the state of Sikkim in the last 40 years.



Mr. Megha Nidhi our distinguished alumni being honored by the chief minister Sikkim state

- Ms. Malvika Venkat, a student from Department of Civil Engineering, has been selected as a “**Vijaya Karnataka Green Ambassador**” for Chickaballapur district.
- Mr. R Jaffar Sadiq (INC12MMD10) has won an award for the project titled “**Design, Fabrication & Performance evaluation of multi – purpose agricultural implement**” under the guidance of Dr. S G Gopala Krishna, Principal, in the competition organized by **National Design, Research Forum, The Institution of Engineers (India) & Rajiv Gandhi College of Technology**, Bangalore on 05<sup>th</sup> July 2014.
- Mr. Manu M S (INC12MMD16) has won an award for the project titled “**Design Fabrication and analysis of Bin type mulberry harvester**” under the guidance of Dr. N G S Udupa, Vice Principal & HOD Mechanical – (P.G), in the competition organized by **National Design, Research Forum, The Institution of Engineers (India) & Rajiv Gandhi College of Technology**, Bangalore on 05<sup>th</sup> July 2014.
- Mr. Praveen G (INC12MMD26) has won an award for the project titled “**Characterization and Mechanical properties of A356.1 Aluminium alloy matrix composites Reinforced with MgO Nano particles**” under the guidance of Mr. Yogeesh H C, Associate Professor, Mechanical Engg. Department, in the competition organized by **National Design, Research**

**Forum, The Institution of Engineers (India) & Rajiv Gandhi College of Technology, Bangalore on 05<sup>th</sup> July 2014.**

- Ms. Chaitra (1NC11BT003) and Ms. Keerthana R (1N11BT005) has won 2<sup>nd</sup> prize in Intercollegiate Climate Change Quiz 2013 organized by Center for Atmospheric and Ocean Sciences, Divecha Centre for climate change on 19<sup>th</sup> September, 2013 at J.N Tata Auditorium, IISc, Bangalore.
- Ms. Meghana Sathyanarayana Rao, an Alumnous, has been nominated as “Young Ambassador for DAAD fellowship”.

### 2.6.3 How does the institution collect and analyse data on student learning outcomes and use it for overcoming barriers of learning?

- After the end of each internal test, the performance in each subject is recorded and analyzed to understand the effectiveness of teaching learning process.
- Subject wise Result analysis is carried out after the announcement of University results. The outcome is discussed in the departmental and HOD meeting.
- Online feedback about the teaching learning process of each course is taken from the students twice during the each semester.
- Alumni, Parents and Employers’ feedback is also taken.

Data collected from result analysis and feedbacks are used to plan and overcome from the barriers of learning. Remedial classes are conducted to overcome the barriers of learning.

### 2.6.4 Give Programme-wise details of the pass percentage and completion rate of students.

#### Result analysis for the last four years

Programme : B.E.	Result in %			
	2014-15	2013-14	2012-13	2011-12
Computer Science and Engineering	95	89	96	99
Information Science and Engineering	100	94	100	98
Civil Engineering	96	98	100	100
Electronics and Communication Engg	90	96	89	92
Mechanical Engineering	87	98	99	95
Programme : M.Tech				
Machine Design	100	93	100	100

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VLSI Design and Embedded Systems	86	100	100	100
Structural Engineering	100	100	100	94
Construction Technology	100	100		
Computer Science and Engineering	94			
Programme : MBA				
MBA	81	88	74	77

*Any additional information regarding Teaching, Learning and Evaluation, which the institution would like to include.*

- Virtual Lab facilities sponsored by MHRD, GOI and supported by IITs and IISc is being used by the students to explore and collaborate in an interactive manner. Our college is rated in the top 5 colleges in the country to have used the Virtual Lab facility as on 19.10.2015.
- Our college is a part of E-Yantra project sponsored by MHRD and coordinated by IIT-B Bombay. Our students secured third prize in all the India competition conducted by IIT-B.
- Our college is also participating in the Student Satellite Programme supported by ISRO.
- The entire examination process is automated.
- We have encouraged our faculty to prepare learning materials using Moodle and provided an interactive environment for the students for collaborative learning.
- The concept of peer tutoring is introduced.

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**CRITERION III****RESEARCH, CONSULTANCY AND EXTENSION****3.1 Promotion of Research****3.1.1 Does the College have a research committee to monitor and address the issues of research? If yes, what is its composition? Mention a few recommendations which have been implemented and their impact.**

YES, The College has a Research Committee to monitor and address the issues related research.

**Composition of the Research Committee:**

Sl. No	Name	Designation
1	Dr. S.G. Gopala Krishna	Chairman
2	Dr. N.G.S. Udupa	Member
3	Dr. N. Kapilan	Member
4	Dr. S.M. Handigund	Member
5	Dr. Y.S. Kumara Swamy	Member Secretary

The college has a full time dean to look after the various researches related activities. Dean (R&D) initiates and monitors research and development activities not only at department level but also at college level.

**Objectives of the Research Committee:**

- To encourage teachers to write research proposals and get it funded.
- To provide information about funding agencies, area of research and amount of funding.
- To prepare review reports of the ongoing research projects at regular intervals.
- To initiate setting up of incubation center/Center of excellence.
- To organise expert lectures on research methodologies and research related areas to motivate the faculty.

**Few recommendations made by the committee for effective implementation of R&D activities are as follows:**

- To ensure that research proposals are mainly written in the area of emerging technologies.
- To provide the necessary infrastructure for the research work
- To encourage staff members to register for Ph.D
- To get the funding from external agencies.

- To encourage the staff members to attend conferences and workshops to gain the get idea to take up research work in the thrust areas.
- To encourage the staff members to publish research papers in the reputed journals.

**Impacts of the effective implementation of R&D activities are as follows:**

- Necessary infrastructures' have been created for the research work
- Several staff members have registered for Ph.D
- Received funding from external agencies for the research work.
- Several staff members have attended conferences and workshops to get awareness about research work in the thrust areas.
- Several staff members have published research papers based on their research work in reputed journals/conferences.

### 3.1.2 What is the policy of the College to promote research culture in the College?

- **Autonomy to the principal investigator:**

College has given freedom to principal investigator in carrying out his/her research work so that the project is implemented properly.

- **Timely availability of resources:**

All types of resources such as financial, laboratories, library and computing facilities are made available as and when required by the project investigator.

- **Adequate infrastructure and human resources:**

Every department has well established research laboratory with necessary back up of software and hardware. In addition, if any extra infrastructural facility, man power etc are needed, the same will be made available.

Experts from reputed institutions like IISc, ISRO etc., are consulted and have contributed to the progress of the on-going projects.

- **Time-off, reduced teaching load, special leave etc. to teachers:**

Teachers are generally allotted workload as per the AICTE norms. The workload is reduced for those faculty members who are involved in the research activities.

Teachers are permitted to avail special leave to attend to their research related work, such as, visit to reputed R&D centers, IITs and IISc. In addition faculty members are permitted to avail paid

leave to prepare and attend to their research course work.

- **Support in terms of technology and information needs:**

45 mbps Wi-Fi internet facility is available in the campus so that researchers can utilize this facility.

The library has good collection of reputed Research Journals, E-Journals, E-books, Hand books and latest technical books for the benefit of researchers.

All departments have well established laboratories which can be used round the clock for research activities.

- **Facilitate timely auditing and submission of utilization certificate to the funding authorities:**

Research Committee continuously monitors the progress of on going research work and ensures that the utilization certificate is submitted well in time.

The Accounts department helps the researchers in timely preparation of the utilization certificate, auditing and submission to the funding agencies.

The college extends all possible guidance and support to help faculty and research scholars to conduct their research activities.

The college provides financial support to faculty to present their research publications in national and international conferences/journals.

### 3.1.3 List details of prioritized research areas and the areas of expertise available with the College.

Sl.No	Faculty Name	Department	Research Area
Dept. of Electronics & Communication Engineering			
1	Dr.Geetha Prakash	Electronics & Communication Engineering	Error Control Coding and Free space Optical Communication
2	Dr. G. S. Jayadeva	Electronics & Communication Engineering	Micro Electronics (Device Modeling)
3	Prof. Nagesh. K. N	Electronics & Communication Engineering	Wireless Communication
4	Prof. H. Venkatesh Kumar	Electronics & Communication Engineering	Wireless Communication

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5	Prof. G.M. Basavaraj	Electronics & Communication Engineering	Image Processing
6	Prof. T.Y.Sateesh	Electronics & Communication Engineering	Image Processing
7	Prof. Rohit S	Electronics & Communication Engineering	Image Processing
Dept. of Computer Science Engineering			
1	Dr. Y S Kumara Swamy	Computer Science & Engineering	DIP, DSP, BI, IOT, HADOOP
2	Dr. Shantakumar B. Patil	Computer Science & Engineering	DM, AI
3	Dr. Premajyoti G. Patil	Computer Science & Engineering	CT, CN, MP
4	Mr. Gopinath A.R.	Computer Science & Engineering	OS
5.	Mrs. Swathi S	Computer Science & Engineering	Algorithms
Dept. of Information Science Engineering			
01	Dr. Shivanand M. Handigund	Information Science & Engineering	Software Engineering
			Software project Management
			Object Oriented Technology
			Data Base Management System
02	Prof. Roopashri Tantri	Information Science & Engineering	Software Reliability
03	Dr. Gururaj Murtugudde	Information Science & Engineering	Data Mining, Artificial Intelligence
04	Prof. Mamatha C M	Information Science & Engineering	Computer Architecture
05	Prof. Rajini K C	Information Science & Engineering	Adhoc Networks
Dept. of Mechanical Engineering			
1	Dr. S G Gopala Krishna	Mechanical Engineering	Supply Chain Management
2	Dr. N.G.S Udupa	Mechanical Engineering	Machine Tools, Composite Materials
3	Dr. Kapilan	Mechanical Engineering	Alternative Fuels, Thermal Engg System & Design, Composite Materials
4	Dr. M.S.Govinde Gowda	Mechanical Engineering	Thermal & Fluids Engineering.
5	Dr. G.Kantharaj	Mechanical Engineering	Supply Chain Management
6	Prof. Yogeesh H.C	Mechanical Engineering	Knowledge Management
Dept. of Civil Engineering			
1	Dr. Rajendra. S	Civil Engineering	Construction Technology
2	Dr. T.M. Mohan Kumar	Civil Engineering	Water Resources
3	Prof. Nagendra. V	Civil Engineering	Structures
4	Prof.C.B.Jagadish	Civil Engineering	Hydrology

5	Prof.Megha Kulkarni	Civil Engineering	Environmental Engineering
Dept. of MBA			
1	Dr N. Sandhya	MBA	Human Resource Management
2	Dr. Poornima U K	MBA	Micro Finance
3	Mr. AjathaShatru Samal	MBA	Marketing
4	Mrs. Anandamma N	MBA	Human Resource Management
5	Mr. Harish K S	MBA	Marketing
6	Mr. Lokesh G R	MBA	Marketing
Dept. of Basic Sciences			
1	Dr. Harisha P	Physics	Radiation Physics
2	Dr. Manjunatha K	Chemistry	Bioorganic & Medicinal Chemistry, Corrosion Studies
3.	Dr. Venkata Lakshmi	Mathematics	CFD

### 3.1.4 What are the proactive mechanisms adopted by the College to facilitate smooth implementation of research schemes/ projects?

- Students are motivated to take up research oriented mini hobby projects in emerging areas of technology.
- Students are encouraged to take up innovative projects as a part of their final year project work.
- College organizes “**Project Exhibition**”, for the final year students and prizes are given to innovative projects. Branch wise jury is formed to evaluate the research oriented projects and prizes are awarded to selected projects.
- College helps the students in getting the sponsorship for their project work from the funding agencies like KSCST, ISHRAE etc.
- Students are encouraged to participate and present research papers in national and international conferences organized by the college or other colleges.

#### Advancing funds for sanctioned projects

College will provide advance fund to the investigator, if his / her project was selected for funding. However there is a delay in releasing of fund from the agencies.

#### Providing seed money

College will provide the seed money to the investigator if he / she has expertise and also has further potential to get funds from other agencies

#### Autonomy to the principal investigator/coordinator for utilizing overhead charges

Autonomy is given to the principal investigator for utilizing the funds to

meet the requirements of different overhead charges.

### Timely release of grants

The fund is released to the Investigator, as and when required by him /her.

### Timely auditing

Research Committee continuously monitors the progress of ongoing research work and helps in auditing.

### Submission of utilization certificate to the funding authorities

The Accounts department helps the researchers in timely preparation of the utilization certificate, auditing and submission to the funding agencies.

### 3.1.5 How is interdisciplinary research promoted?

#### Between/among different departments of the College

College encourages inter-disciplinary research and development work. Departments are given complete freedom to interact with one another and take up mini and major projects without disturbing the routine teaching and learning process.

Some of the inter-disciplinary projects research activities are as shown in the table.

Sl.No.	Faculty names	Departments participating in inter-disciplinary research	Project Title	Collaborating Departments
Dept. of Electronics & Communication Engineering				
1	Dr. G.S. Jayadeva	ECE	Narrow Band Pass Filter for Downlink module of Nano-Satellite	CSE
2	Dr. K. N. Hari Bhat	ECE	Design of Monopole Transmit Antenna for Downlink Module of Nano-Satellite	CSE
3	Dr. G.S. Jayadeva	ECE	Designing a code for the encoding and decoding of the data by a Terminal Node Controller and its simulation for a small signal spacecraft	CSE
4	Dr. G.S. Jayadeva and Mr. H.Venkatesh Kumar	ECE	Software Defined Radio for GPS	CSE
5	Dr. K. N. Hari Bhat	ECE	Design, simulation and placement of Antenna On-Board Nano	CSE

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			Satellites	
6	Mr. H.Venkatesh Kumar	ECE	Design and Implementation of Communication Links For Satellite Studsat-2	CSE
7	Mr. G. M. Basavaraj	ECE	Design, simulation and Fabrication of microstrip patch Antenna	CSE
8	Mr. Ram Babu.K	ECE	Android Based Speed Control Of DC Motor	CSE
9	Mrs. Ashwini. S	ECE	GSM Based Automated Electricity Energy Meter Billing Generation And Electricity Theft Control System	CSE
10	Mr. Rohith. S	ECE	Secured Patient Information Hiding Scheme In Medical (MRI) Images Using Reversible Data Embedding Scheme	CSE
11	Mrs. Aruna. M	ECE	Sorting Dry Waste And Wet Waste Matter Using Robotics And Video Processing Technique	Mechanical
12	Mr. Satheesha. T. Y & Mr. Ananth Upadhya	ECE	Malignant Melanoma Detection By Bag-Of-Features Classifications	CSE
13	Mr. Satheesha. T. Y	ECE	3D Visuals Involving Automation	CSE
14	Mr. Satheesha. T. Y & Mr. C. V. Nanda Kishore	ECE	Detection Of Lungs Cancer Nodule By Using Hopfield Neural Network Algorithm	CSE
15	Dr. K.N. Haribhat	ECE	Case Study Of Power Grid Telecom Unit And Designing Of CDMA Network With Traffic Migration	CSE
16	Mrs. Rekha. K	ECE	Can & Cloud Based Oil Well Parameters Monitoring Using Compact Remote System	CSE
17	Mr. T. Y. Satheesha	ECE	Cloud Based Networked Visual Servo Control	CSE
Dept. of Computer Science & Engineering				
18	Mr. John J P	CSE	Design & Implementation of File & Memory management for Satellite operating System	ECE
19	Mr. John J P	CSE	Design & Implementation of Scheduler's for Satellite operating System	ECE
Dept. of Mechanical Engineering				
20	Dr. Kapilan N	Mechanical	Experimental Study of Storage and Oxidation Stability of Bio Diesel	Bio-Technology

### Collaboration with national/international colleges/ industries.

The college has regular collaboration with other academic institutes and industries. We provide research facilities to other college students such as NMIT, UVCE and BMSIT etc in our college. Also, we invite eminent

researchers / experts from other institutes such as IISc, GKVK etc, to interact with our faculty members and students.

We have interaction with researchers in reputed industries such as ISRO/NAL/HAL / TCS / ORACLE / BOSCH etc for the growth of industry related research work.

### 3.1.6 Enumerate the efforts of the College in attracting researchers of eminence to visit the campus and interact with teachers and students?

- The college invites eminent researchers from IISc, ISRO, DRDO, ASHRAE, IITB-M, NITK, and other reputed R & D organizations to deliver talks on emerging technologies and outside experts are involved in the ongoing research projects.
- The college has interaction with IITB-M, IISc, ISRO, etc to carry out research oriented mini and major projects.
- The college has MOUs with BOSCH, Texas Instruments, Oracle, ISHRAE, Wipro, DataTalk, EMC<sup>2</sup>, TCS-ION, EI Technologies, etc to take up research oriented projects and invite experts from these organizations to deliver technical talks to motivate our staff and students.
- Prof Suresh K Bhargava from RMIT University, Melbourne visited our college for interaction with students and faculties.

Sl. No	Expert Name	Title of the Expert Talk/Interaction	Date/s on which programme is organized
Dept. of Electronics & Communication Engineering			
1	Mr. N.Nithin Awashi, APSIS Solutions, Bangalore	Embeded System and Robotics (MICROCHIP's PIC 18)	6-3-2015
2	Mr. N.Nithin Awashi, APSIS Solutions, Bangalore	Hexpod workshop on "Microchip PIC 18-Microcontrollers"	15-3-2015 to 17-3-2015
3	Mr. Pradeep Salla, Technical Manager, Mentor Graphics , Bangalore	An Overview of ASIC Verification Technologies	11-04-2015
4	Prof.K N Bhat, Centre for Nano Science and Engineering,IISC, Bangalore	Micro and <i>Nano Electronics</i> Device Modelling and Technology	18-02-2014
5	Dr. K. N. Haribhat, NMIT, Bangalore.	Correlation Analysis and its Application in Communication Engineering	29-10-2014
6	Mr. N.Nithin Awashi,	Workshop on "Microchip	3/10/2013 to

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	APSYS Solutions, Bangalore	PIC 18 Processors & Peripherals"	5/10/2013
7	Mr. Srinivas Madaiah, Design Engineer, Intel, Bangalore	Analog ASIC Flow	01/02/2012
8	Mr. Srinivas Madaiah, Design Engineer, Intel, Bangalore	ASIC RTL to GDS Flow	03/03/2012
9	Mr. Jayaram Navada C, Design Engineer, Renesas Technologies, Bangalore	System Verilog for Verification: A Practical Approach	10/03/2012
10	Dr. Lakshmi Nidi, NITK Suratkal	Analog Design using Cadence Tool	5/03/2011 and 6/03/2011
Dept. of Computer Science & Engineering			
1	Dr. Pallav, Dept of Maths & CSE, SSSIH, Puttabarti,	Algorithms	05-02-2015
2	Dr. Bhattacharya, Lenovo, Bangalore	High Performance Computing	12-03-2015
3	Mr. Manjunath H R, Data lifecycle Company, Bangalore	Data Storage System & Storage area network	13-03-2015
4	Mr. A B Narendra, Datatalk Basavanagoudi, Bangalore – 19	Basics in Network Engineering	17-08-2015
5	Mr. H N Madhusudhana, Budget, Director ISRO HQ, Bangalore	Mathematical Application to Satellite and Communication	05-09-2015
6	Dr. K C Gouda, C-MMACS, NAL Bangalore – 17	Big Data Analysis and Cloud Computing	12-09-2015
7	Mr. Ranganath, EI Technology, Jayanagar, Bangalore – 37	Solar Energy	15-09-2015
8	Mr. Nageshwar Rao, Network support Engineer, F5 Network Inc, UK	Web application fire walls and their importance	29-10-2015
9	Dr. Manish Bali, NVIDIA, Bangalore	High Performance Computing	18-09-2014
10	Dr. Srihari, NOVEL, Bangalore	Computer Application to Marketing and Management	17-10-2014
11	Dr. Dinesh, Computer Science IISC, Bangalore - 12	Robotic Puppet and Artificial Intelligence	31-10-2013

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Dept. of Information Science & Engineering			
1	Mr. Manjunath, Director and CEO, Data Life Cycle, Bangalore	Data Storage Technology	13-03-2015
2	Mr. Venkatesh Mishra, Software Developer, IBM	Android and its Related Applications	13-10-2012
3	Mr. Rinkal Kumar, Software Developer, IBM	Android and its Related Applications	13-10-2012
Dept. of Mechanical Engineering			
1	Mr.Ramakrishna, Karnataka State Biofuel Development Board, Bangalore	Applications of Biofuels	5.7.2015
2	Mr. K.E.Girish, NAFEMS Bangalore	How do we ensure the safety of the structure?	6.8.2015
3	Mr.Anish, DGM, Rinac, Bangalore	Advances in Cold Storage	5- 9 – 2015
4	Mr.Hariharan, GM, Twin City Fans, Bangalore	Air Handling Systems in HVAC applications	5.9.2015
5	Dr.Kadir Isa, Professor, Istanbul University	Importance of HVAC	17.10.2015
6	Mr.Sreekesh, Sevcon, Bangalore	Thermal Energy Storage System	24.7.2014
7	Mr.D.Nirmal Ram, President, ISHRAE, New Delhi	Indoor Air quality Sick Building Syndrome	24.7.2014
8	Mr.Sampath, VSM Solar Pvt Ltd. Bangalore	Solar Air- conditioning	25.7.2014
9	Mr.Bhagavan, Director, Carrier UTC	Building Automation and Management system	25.7.2014
10	Mr.Srikumar Maganti, Manager – PLM Support, EDS Technologies	Introduction to CATIA & ABACUS and Few Case Studies	25.7.2014
11	Mrs. Maija Virta Santrupty Engineers Bangalore	Low energy systems (Radial cooling)	26.7.2014
12	Sri.R.Ezhumalai, Scientist, College of Wood Science and Technology, Bangalore	Biomass Gasification	13.11.2014
13	Mr.Sridhar Katpa Infosys, Bangalore	Advanced Tools in CAE	6.11.2014
14	Dr. Kumar K, Project Manager, Infosys, Bangalore	Recent trends in Finite Element Analysis	14.12.2013

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15	Mr. Pradeep M, General Electric, Bangalore	Advanced Concepts in FEA	14.12.2013
16	Dr. M Subba Rao, Scientist, Tata Advanced Materials Ltd., India	Composite Materials - Design and manufacturing	18.5.2013
17	Mr. Wilson Lawrence LR, Bangalore	CFD Applications in HVAC	21.9.2013
18	Mr. Jay Shankar Ray Maxwatt Turbines Bangalore	CFD Applications in Steam Turbine	21.9.2013
19	Mr. Rakesh Sahay, Director, Eqube, Bangalore	Opportunities in Energy Conservation Sector	21.3.2012
20	Dr. M L Munjal, Senior Professor, IISc, Bangalore	Expert Lecture on Noise and Vibration control	16.4.2012
21	Dr. Arun Kumar V Scientist, NAL, Bangalore	Advanced Concepts in Vibration as Applied to Structures	17.4.2012
22	Dr. P.G Mukunda Former Professor, IIT Kharagpur	Basic concept of Material Testing and Metallurgy lab	04.09.2012
23	Mr. Madhukar, Director, Swathi Air conditioning System	Types of Air- conditioning System	16.10.2012
24	Dr. David Hugh Nash, Vice Dean, University of Strathclyde, Scotland	Pressure vessels and piping for the oil and gas	13.2.2011
25	Dr. Udupi Srinivas, Professor, Department of Marine Engg, IISc, Bangalore	Advanced Concepts in Non-linear vibrations	4.5.2011
26	Mr. B. Subramanyam EMERSON Climate Technologies, Mumbai	Star Rating and Energy Conversation	28.09.2011
27	Dr. S. Dasappa Professor IISc, Bangalore	Biomass- A Renewable Energy Source	22.10.2011
28	Mr. Nanda Kumar, Product Specialist-Mechanical CADD, Chennai	Industrial Application of Unigraphics 7.5	04.11.2011
29	Mr. C.A Devarajan. Vice President (Finance) for PMI Bangalore India Chapter.	Project Management	09.11.2011
Dept. of Civil Engineering			
01	Dr. Ramachandra, Vice President Ultratech Cements	Finite Element Method	20/2/15
02	Dr. Ramachandra, Vice President Ultratech Cements	New Innovations in Concrete	20/2/15

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03	Er. N R Ashok, Civil Engineer Consultant	Deconstruction of Concrete	27/02/15
04	Mr. C R Manjunath, District environmental Officer, Chikaballapur	Effects of pollution in and out of Bangalore city	26/09/2014
05	Mr. C R Manjunath, District environmental Officer, Chikaballapur	Solid Waste Management	29/10/2014
06	Er. N R Ashok, Civil Engineer Consultant	Innovative Construction Techniques and Materials	31/10/ 2014
07	Er. Shalini, Director, Sys.N Consultants Pvt Ltd	Brief overview on Fire safety	22/3/14
08	Dr. B.K. Narendra, Principal BGSIT B G Nagar Nagamangala	Recent Advances in Civil Engineering	28/08/2013
09	Er. Nagesh Rammurthy, Chief Knowledge Officer & Er. A N Prakash, Construction, Project Management Consultants Pvt Ltd.	Importance of Construction Planning	9/11/13
10	Dr. R.V. Ranganath, H.O.D, Civil Engg. BMSIT, Bangalore	Modern Concrete – the Changing Paradigms	09/11/2013
Dept. of MBA			
1	Mr. Raju Susheelendra Nittur, Senior Manager, HP	Guest lecture and practice session on Yoga and meditation	3/10/15
2	Shri Mathur K. Nanjunda, DGM, State Bank of Mysore	Business plan inter college competition	30/10/14
3	Dr. Dileep Kumar, Utara University, Malaysia	Guest lecture on 360 degree leadership	6/09/2012
4	Mrs Roopa, Manager (Compliance), KSFC, Bangalore	Guest lecture on Role of KSFC in promoting entrepreneurship	6/9/2012
5	Mr. Satish Vishwanathan, Associate Vice President, TULIP Data services	Guest lecture on Digital marketing	3/9/2011
6	Mr. Anil Kumar, Senior Manager, Regulatory Affairs KPTCL	Guest lecture on development of leadership skills	29/9/2011
7	Mr. Mukund Bharadwaj Deputy CEO, Guhring India Limited	Challenges faced by Management Students in Corporates	11/05/2012
8	Mr. Devarajan, Senior Manager, WIPRO	Guest lecture on project management	02/11/2011

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9	Dr.D.K.Murthy, Director for MBA Program, Sheshadripuram College of Management Studies, Bangalore	Guest Lecture on Campus to Corporate	03/11/2011
10	Mr. Vivek Devarajan, Senior Manager, WIPRO	Guest lecture on Vedic economics	3/12/2011

### 3.1.7 What percentage of faculty have utilized sabbatical leave for research activities? How has the provision contributed to the research quality and culture of the College?

Faculty members are provided leave facility for the research work as per their request. This has resulted in few staff members to take-up their research work. About 5% of the faculty members have utilized this facility. The faculty members who have utilized this facility, after completion of their higher studies and Ph.D., they are continuing their service in this college, there by contributing to improve the quality of the research in the college.

### 3.1.8 Provide details of national and international conferences organized by the College highlighting the names of eminent scientists/scholars who participated in these events.

Details of National International conferences organized by various departments in the college.

#### • National Conferences

Sl. No.	Name of the Conference	Organizing Department	Date/Month/Year
1	National Conference on Innovation and Emerging Trends in Mechanical Engineering	Mechanical	5th & 6 <sup>th</sup> May 2011
2	National Conference on Innovation and Emerging Trends in Mechanical Engineering	Mechanical	10 <sup>th</sup> May, 2012
3	National Conference on Emerging Trends in Technology	CSE	26 <sup>th</sup> & 27 <sup>th</sup> April, 2012
4	National Conference on Emerging Trends in Computer	CSE	24 <sup>th</sup> & 25 <sup>th</sup> April, 2015

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	Science and Engineering		
5	National Conference on Trends and Challenge on Information Technology	ISE	18 <sup>th</sup> May, 2015
6	National Conference on Recent Trends in Information Technology, IT Sinchana-09	ISE	6 <sup>th</sup> and 7 <sup>th</sup> March, 2009
7	National conference on contemporary issues and challenges in corporate excellence	MBA	31st March, 2012
8	National Conference on Global Issues And Challenges In Innovation And Creativity	MBA	22nd November, 2013
9	Symposium on trends & perspectives of Management education in India	MBA	24th November, 2014

### International Conferences

Sl. No.	Name of the Conference	Organizing Department	Date/Month/Year
1	Second International Conference on Innovation and Emerging Trends in Mechanical Engineering	Mechanical	17/10/2015
2	First International Conference on Innovation and Emerging Trends in Mechanical Engineering	Mechanical	13/07/2014

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A number of eminent scientists and technocrats have contributed to various events conducted by the college. Following are some of the names of the people who have contributed to the growth of research culture in the college.

Sl.No	Expert Name	Title of the Expert Talk/Interaction	Date/s on which programme is organized
Dept. of Electronics & Communication Engineering			
1	Mr. Srinivas Madaiah, Design Engineer, Intel, Bangalore	Analog ASIC Flow	01/02/2012
2	Mr. Srinivas Madaiah, Design Engineer, Intel, Bangalore	ASIC RTL to GDS Flow	03/03/2012
3	Prof.K N Bhat, Centre for Nano Science and Engineering,IISC, Bangalore	Micro and <i>Nano Electronics</i> Device Modelling and Technology	18/02/2014
4	Dr. K. N. Haribhat, NMIT, Bangalore.	Correlation Analysis and its Application in Communication Engineering	29/10/2014
5	Mr. N.Nithin Awashi, APSIS Solutions, Bangalore	Workshop on “Microchip PIC 18 Processors & Peripherals”	3/10/2013 to 5/10/2013
Dept. of Computer Science & Engineering			
1	Dr. Dinesh, Computer Science IISC, Bangalore - 12	Robotic Puppet and Artificial Intelligence	31-10-2013.
2	Mr. A B Narendra, Datatalk Basavanagoudi, Bangalore - 19	Basics in Network Engineering	17-08-2015.
3	Mr. H N Madhusudhana, Budget, Director ISRO HQ, Bangalore	Mathematical Application to Satellite and Communication	05-09-2015.
4	Dr. Manish Bali, NVIDIA, Bangalore	High Performance Computing	18-09-2014
5	Dr. Srihari, NOVEL, Bangalore	Computer Application to Marketing and Management	17-10-2014
6	Mr. Manjunath H R, Datalifecycle Company, Bangalore	Data Storage System & Storage area network	13-03-2015
Dept. of Information Science & Engineering			
1	Mr. Manjunath, Director and CEO, Data Life Cycle, Bangalore	Data Storage Technology	13-03-2015

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Dept. of Mechanical Engineering			
1	Dr S. Kasturi Rengan, Professor, Center for Cryogenic Technology, IISc, Bangalore	Cryogenics fundamentals & Applications	
2	Dr. Udupi Srinivas, Professor, Department of Marine Engg, IISc, Bangalore	Advanced Concepts in Non- linear vibrations	4.5.2011
3	Dr. M L Munjal, Senior Professor, IISc, Bangalore	Expert Lecture on Noise and Vibration control	16.4.2012
4	Dr. Arun Kumar V Scientist, NAL, Bangalore	Advanced Concepts in Vibration as Applied to Structures	17.4.2012
5	Dr. M Subba Rao, Scientist, Tata Advanced Materials Ltd., India	Composite Materials - Design and manufacturing	18.5.2013
6	Dr.Kadir Isa, Professor, Istanbul University	Importance of HVAC	17.10.2015
7	Sri.R.Ezhumalai, Scientist, College of Wood Science and Technology, Bangalore	Biomass Gasification	13.11.2014
8	Mr.D.Nirmal Ram, President, ISHRAE, New Delhi	Indoor Air quality Sick Building Syndrome	24.7.2014
9	Dr. P.G Mukunda Former Professor, IIT Kharagpur	Basic concept of Material Testing and Metallurgy lab	04.09.2012
10	Dr. S.Dasappa Professor IISc, Bangalore	Biomass- A Renewable Energy Source	22.10.2011
11	Mr. B. Subramanyam EMERSON Climate Technologies, Mumbai	Star Rating and Energy Conversation	28.09.2011
12	Dr. David Hugh Nash, Vice Dean, University of Strathclyde, Scotland	Pressure vessels and piping for the oil and gas	13.2.2011
Dept. of Civil Engineering			
01	Er N R Ashok	Innovative Construction Techniques and Materials	31/10/ 2014
02	Er Shalini, Director, Sys.N Consultants Pvt Ltd	Brief overview on Fire safety	22/3/14
03	Dr. R.V. Ranganath, H.O.D, Civil Engg. BMSIT, Bangalore	Modern Concrete – the Changing Paradigms	09/11/2013

Dept. of MBA			
1	Dr.Gururaja Karajagi Chairman Academy of creative teaching	F.D.P on Creativity in Management education Co-Sponsored by VTU	8/10/2011

### 3.1.9 Details on the College initiative in transferring/advocating the relative findings of research of the College and elsewhere to the students and the community (lab to land).

- The students and faculty members are given exposure through seminars, conference and workshop.
- Students have to present a seminar by selecting the topics from journals.
- Project exhibition is organized every year where the research projects are exhibited. Experts from the industry and academia are invited to evaluate the projects. Innovative projects are displayed separately.
- The students have to give seminar on their project work during their project reviews.
- Several projects which were taken up at the institution are being used by people at large in particular the farming community.

### 3.1.10 Give details on the faculty actively involved in research (Guiding student research, leading research projects, engaged in individual or collaborative research activity etc.)

Details of faculty involved in active research are given below:

Sl. No.	Department	# of Guides	# of Ph.D. Scholars registered	#faculty pursuing research
	Electronics & Communication Engineering	02	05	06
	Computer Science & Engineering	03	17	06
	Information Science & Engineering	02	05	03
	Mechanical Engineering	05	16	13
	Civil Engineering	03	08	08
	MBA	01	07	06
	Mathematics	01	00	02
	Physics	01	01	02
	Chemistry	01	05	03

Some leading research projects under implementation are:

- Development and Evaluation of Solar and Geo Thermal based Cooling and

Refrigeration Systems sponsored by VGST (Rs. 30,00,000)

- Experimental Study of Storage and Oxidation Stability of Bio Diesel sponsored by VTU (Rs 4,50,000)
- Design and Engineering of a Small Satellite-Cansat sponsored by College of Engineers (Rs.50,000)
- A project on robotics namely e-Yantra related to robotics and sponsored by IIT B, Mumbai (Rs. 25,000)
- Low power model predictive control (MPC) IP core for system on chip solutions, funded by VTU (Rs. 5,00,000).
- Production and Extraction of Some Microbial Hydrolases - An Industrial Microbiological Approach in Food Processing, funded by VTU (Rs. 6,88,000).
- Secure and Efficient Data Transmission for Cluster Based Wireless Sensor Networks, funded by KSCST (Rs. 4,000).

### 3.2 Resource Mobilization for Research

#### 3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization for last four years.

- Contribution from the management to take up research activities is a variable amount. The amount contributed depends on the number of research projects, quality of research projects, social significance and technological impact of research project. All the research proposals shall pass through the research committee. Based on the recommendation of the research committee, financial support is provided.
- Financial support covering travelling expenditure, accommodation expenses, registration fee etc of research scholars is borne by the college out of the budget allocated for research activities.
- Instruments, equipments, materials and consumables are procured for various laboratories and these facilities are used for research activities.

#### 3.2.2 What are the financial provisions made in the College budget for supporting student research projects?

- Research projects of students are scrutinized by the project evaluation committee at the department level. The projects which have quality, social significance and technological impact are provided with financial support.
- Student Satellite Programme supported by ISRO in association with six other engineering colleges has been supported by the college to the tune

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of Rs.10 Lakhs. This project “STUDSAT” is being pursued for the last five years. Every year about 20 to 30 students are pursuing the “STUDSAT” project.

- E-yantra project supported by IIT Bombay, Mumbai has been take up by the students during the last two years. Both faculty and students are involved in this project which is funded by the college.
- College organizes “**Project Exhibition**” for the final year students and prizes are given to innovative projects. Branch wise jury is formed to evaluate the projects and generally three prizes are given to selected projects.
- College encourages the involvement of students in mini projects and awards are given to innovative mini projects.
- College sponsors students to present their innovative ideas in the form of technical papers national and international conferences.
- College helps the students in getting the sponsorship for their project work from the funding agencies like KSCST, ISHRAE etc.
- Students are allowed to utilize the laboratory and other resources during the project time.

Following are the projects which have got sponsorship.

Sl.No.	Title of the Project	Students Name with USN	Guide Name	Funding Agency	Academic Year	Amount Sanctioned
Dept. of Electronics & Communication Engineering						
1	e-Yantra	Pavan Attavane - 1NC11EC122 Rama Kumar.K.S – 1NC11EC086 Santhosh Rao Jadav.S - 1NC11EC096	Dr. G. S. Jayadeva	IIT B, Mumbai	2014-15	25000
2	STUDSAT Projects	Dhirendra Kumar - 1NC09EC016, Gaurav Kumar - 1NC09EC019, Sanjay Yadav - 1NC09EC061	Dr. G. S. Jayadeva & Mr. Venkatesh Kumar. H	ISRO/VTU/ VGST/NMIT & Other Constituent Colleges	2012-2013	1.6 cores
		Bhavana H S - 1NC09EC011 Amritha.R-1NC09EC003 Archana.B.R- 1NC09EC007 Supriya.G- 1NC09EC065	Dr. G.S. Jayadeva			
		Akshay Kumar- 1NC09EC002 Prabhath G.Y- 1NC09EC053 Srivatsa G.N- 1NC09EC064	Dr.K.N.Hari Bhat			

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		Vinay. G - 1NC09EC074 Girish S M -1NC09EC021 Rahul Soni- 1NC08EC047	Mr. H.Venkatesh Kumar			
		Tulsi Kumar - 1NC09EC069 Umesh Chaudhary - 1NC09EC070 Vinay Kiran. S - 1NC10EC426	Mr.G.M. Basavaraj			
		Ankit More -1NC08EC007 Naveenkumar. M.R - 1NC08EC038 Ranjith K - 1NC08EC048	Dr. G.S. Jayadeva			
		Amala Devi - 1NC08EC004 Alluri Anupama - 1NC08EC008 Sindhura.M - 1NC08EC068	Dr.K.N.Hari Bhat		2011-12	
3	Texas	Vishwanath – 1NC12EC105 Vaishnavi - 1NC12EC102	Dr. G.S. Jayadeva	Texas	2013-14	Compone nts Kit
Dept. of Information Science Engineering						
1	Secure and Efficient Data Transmissio n for Cluster Based Wireless Sensor Networks	Madhuri C Sowmya Shivani	Mrs. Sushmitha N. S.	KSCST	2014-15	4,000
Dept. of Mechanical Engineering						
1	Studies on Improveme nt of Fuel Properties of the Bio- Diesel and its Blends	Sukanya Rao	Dr.Kapilan N	KSCST	2014-15	14,000
2	Studies on Election of NOX Emission of Bio-Diesel Operated Design Engine	Arindam Benerjee	Dr.Kapilan N	KSCST	2014-15	12,000
3	Feasibility Study of Production of Electricity from Hot Exhaust Gases of the	Sandeep Kumar, Tilak M, Manjunath G.B., Ravi Kiran	Dr.Kapilan N	KSCST	2013-14	6,500

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	Engine					
4	Development and Evaluation of Thermo Acoustic Cooling System	Shashank Shekar	Dr.Kapilan N	VGST	2013-14	40,000
5	Design and Engineering of a Small Satellite-Cansat	Abhishek Anand, Mrinmal Bharadwaj, Abhinav Singh, Preetham Kumar	Dr.Kapilan N	College of Engineers (India)	2013-14	50,000

**3.2.3 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?**

Yes,

- Approximate amount spent in the form of seed money is about two crore.
- About 5% of the teaching staff who are actively involved in research related activities are getting financial support in the form of seed money.

**3.2.4 Are there any special efforts made by the College to encourage faculty to file for patents? If so, provide details of patents filed and enumerate the sanctioned patents.**

Yes. The institution encourages the faculty to file to get the research work patented. One of the faculty members has filed a patent application.

- Dr. N. Kapilan, Professor & HOD, Mechanical Engineering has filed for the patent on the topic “Zero Electrical Energy Bio-Diesel Plant”, Application No. : 1814/CHE/2010, dated 28/06/2010.

**3.2.5 Provide the following details of ongoing research projects:**

Dept.	Nature of the Project	Duration Year From - To	Title of the project	Name of the funding agency	Total Grant		Grant received till date
					Sanctioned	Received	
Mech	Minor projects	2013-14	Design and Engineering of a Small Satellite-Cansat	Institute of Engineers (India)	50,000	50,000	50,000

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ECE	Major projects	2010-2013	Low power Model Predictive Control (MPC) IP core for “System on chip Solutions”	VTU	500000	425000	425000
ISE		2015-2016	A Suigeneris Software Testing Methodology	Indo-US Endowment Fund	Applied		
		2015-2016	Introjection of Object Oriented Features in Network Database Management System				
		2015-2016	Resuscitation of Software Life Cycle Stages Syllogism with the introduction of Unified Modelling Language				
Mech		2014-17	Development and Evaluation of Solar and Geo Thermal based Cooling and Refrigeration Systems	VGST	30,00,000	10,00,000	10,00,000
Mech	Interdisciplinary projects	2009-14	Experimental Study of Storage and Oxidation Stability of Bio Diesel	VTU	4,50,000	4,50,000	4,50,000
Mech	Industry sponsored	2014-15	Studies on Effect of Bio Diesel on the Engine Crankcase Lubricant	KSCST	14,000	14,000	14,000

3.2.6 How many departments of the College have been recognized for their research activities by national / international agencies (UGC-SAP, CAS, DST-FIST; DBT, ICSSR, ICHR, ICPR, etc.) and what is the quantum of assistance received? Mention any two significant outcomes or breakthrough due to such recognition.

YES,

Institute has seven Research Centers recognized by Visvesvaraya Technological University, Belgaum. The list of research centers is given below:

Sl.No.	Departments	Year Of Starting
1.	Civil Engineering	2008-09
2.	MBA	2009-10
3.	Electronics & Communication Engineering	2010-11
4.	Mechanical Engineering	2010-11

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5.	Physics	2010-11
6.	Computer Science & Engineering	2012-13
7.	Chemistry	2014-15

3.2.7 List details of completed research projects undertaken by the College faculty in the last four years and mention the details of grants received for such projects (funded by Industry/ National/International agencies).

Department	Nature of the Project	Duration Year From - To	Title of the project	Name of the funding agency	Total Grant		Grant received till date
					Sanctioned	Received	
Mech	Minor projects	2013-14	Design and Engineering of a Small Satellite-Cansat	IE (India)	50,000	50,000	50,000
ECE	Major projects	2010-2013	Low power Model Predictive Control (MPC) IP core for "System on chip Solutions"	VTU	5,00,000	425000	425000
Mech	Major projects	2009-14	Experimental Study of Storage and Oxidation Stability of Bio Diesel	VTU	4,50,000	4,50,000	4,50,000
Mech	Minor projects	2014-15	Studies on Effect of Bio Diesel on the Engine Crankcase Lubricant	KSCST	14,000	14,000	14,000

### 3.3 Research Facilities

3.3.1 What efforts are made by the College to keep pace with the infrastructure requirements to facilitate Research? How and what strategies are evolved to meet the needs of researchers?

- College has 7 research centers which are recognized by VTU, Belgaum.
- All departments have well equipped labs for research work.
- College is recognized as a Nodal Center for Virtual labs which can be used for research activities by the staff and students.
- Students and research scholars from other reputed colleges are being given permission to utilize the research facilities available in our college.

- Well established library with E-Journals/E-books, Hand books etc are available for reference.
- College is a member of VTU consortium and DELNET.
- Library provides books for the researchers through Inter Library Loan scheme (ILL).
- 45 Mbps Wi-Fi network connectivity is available for both students and faculty.
- Senior professors in the college (guides for different universities) are available for providing guidelines.

**3.3.2 Does the College have an information resource centre to cater to the needs of researchers? If yes, provide details on the facility.**

YES

- Well established library with E-Journals/E-books, Hand books etc are available for reference.
- College is a member of VTU consortium and DELNET.
- Library provides books for the researchers through Inter Library Loan scheme (ILL).
- 45 Mbps Wi-Fi network connectivity is available for both students and faculty.

**3.3.3 Does the College provide residential facilities (with computer and internet facilities) for research scholars and faculty?**

YES,

The college provides residential facility in the campus for the research scholars. Laptops are provided at subsidized rate. The entire campus has Wi-Fi connectivity.

**3.3.4 Does the College have a specialized research centre/ workstation to address challenges of research programmes? If yes, give details.**

YES,

- The college has the specialized research centers in the following areas:
  - Bio Fuels and Solar Energy
  - Robotics and embedded systems
  - Satellites and Space applications
  - Cloud Computing

**3.3.5 Does the College have research facilities (centre, etc.) of regional, national and international recognition/repute? Give a brief description of how these facilities are made use of by researchers from other laboratories.**

Yes,

NCET has been recognized as the Centre of Innovative Science and Engineering Education by VGST, Department of IT, BT and Science & Technology, Government of Karnataka

### 3.4 Research Publications and Awards

#### 3.4.1 Highlight the major research achievements of the College through the following:

Major papers presented in regional, national and international conferences – 724 papers during last the four years

Publication per faculty:  $724/89 = 8$

Faculty serving on the editorial boards of national and international journals – 03.

Faculty members on the organization committees of international conferences, recognized by reputed organizations / societies. – 03

#### 3.4.2 Does the College publish research journal(s)? If yes, indicate the composition of the editorial board, publication policies and whether it is listed in international database?

Yes. The research articles prepared by the staff and students of the college are published in the college research journal once in a year.

The editorial board of the journal consists of Head of the institution as chief editor, Head of the major departments and subject experts from different disciplines as members.

#### 3.4.3 Give details of publications by the faculty:

Number of papers published in peer reviewed journals (national / international)

#### **Dept. of Electronics & Communication Engineering**

Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1	Dr. G. S. Jayadeva	-	01	-	04	05
2	Mr. H. Venkatesh Kumar	-	04	03	01	08
3	Mr. Basavaraj.G.M	-	-	02	01	03
4	Mrs.	-	01	-	-	01

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	Sendamarai.P					
5	Mr.Rohith.S	-	08	02	06	16
6	Ms. Rekha K	-	-	02	-	02
7	Ms. Ashwini.S	-	-	01	-	01
8	Ms. Nandini Sharma.A	-	-	-	01	01
9	Mr. T.Y. Satheesha	-	07	03	04	14
10	Mr. C.V. Nanda Kishore	-	02	02	-	04
11	Mr. Kasetty Ram Babu	-	02	01	-	03
12	Mr. Yaseen Basha	-	-	02	-	02
13	Mr. Mahesh. M. R	-	02	-	01	03
14	Ms. Usha. K. S	-	-	01	-	01
15	Mr. Sunil Kumar. B. S	-	-	01	-	01
Total		-	27	20	18	65

### Department of Computer Science & Engineering

Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1	Dr. Shantakumar B. Patil	-	8	6	6	20
2	Dr. Y. S. Kumara Swamy	15	25	15	10	65
3	Dr. Premajyoti G. Patil	-	4	6	6	16
4	Ms. Prabha . S. Naik	-	-	6	-	06
5	Mrs. Swathi. S	-	-	5	-	05
6	Mr. Gopinath A R	-	1	5	1	07
7	Mrs. Bhagya M	-	-	5	-	05
8	Mrs. Manjusha	-	1	5	-	06
9	Mr. Sudhakara Reddy M	-	1	4	-	05
10	Mr. John. J. P	-	7	10	5	22
11	Ms. Vidya. V	-	-	2	-	02
12	Mr. Subramanya. S. G	-	-	2	-	02
13	Mr. Sunil Kumar. B	0	1	3	0	04
14	Mrs Swetha Vura	1	3	2	2	08
15	Ms. Sporthi Pujar	-	1	1	1	03
16	Mrs. Shwetha L	-	-	3	1	04
17	Ms. Mala. B. A	-	1	-	4	05

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18	Mr. Chandrashekhar .P C	-	-	1	1	02
19	Mr. Bhargava R	1	1	4	1	07
20	Mr. Pramoda R	1	1	4	1	07
Total		18	55	89	39	201

### Department of Information Science & Engineering

Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1	B. Roopashri Tantri	-	3	3	4	10
2	Dr. Shivanand M. Handigund	6	14	20	35	75
3	Dr .Gururaj M	-	2	2	-	04
4	Mrs. Mamatha C.M	-	5	8	3	16
5	Mrs. Rajini K. C.	-	1	-	1	02
6	Mr.Mohan D.N	-		1	-	01
Total		6	25	34	43	108

### Department of Mechanical Engineering

Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1.	Dr.S.G.Gopala Krishna	11	09	15	07	42
2.	Dr. N G S Udupa	-	06	14	10	30
3.	Dr.Kapilan N	01	15	12	10	38
4.	Dr. Biradar Mallikarjuna	-	04	05	01	10
5.	Mr. Venkate Gowda C	-	02	14	02	18
6.	Mr. Yogeesh H C	01	02	07	01	11
7.	Mr. Jullya Naik L	-	-	02	01	03
8.	Mr. Balaji Y S	00	00	01	00	01
9.	Mr. R Vara Prasad Kaviti	-	01	-	-	01

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10.	Mr. Venkatesh B K	-	02	-	02	04
11.	Mr. Shashikanth G S	-	-	01	-	01
12.	Mr. Manjunath Raju G	-	-	01	-	01
13.	Mr. Chethan M R	01	02	04	06	13
14.	Ms. Sandya P S	-	-	01	-	01
15.	Mr. Amaresh Gunge	-	01	02	-	03
16.	Mr. Mohan Kumar G D	-	02	01	-	03
17.	Mr. Ashok Kumar K	01	00	04	02	07
18.	Mr. Bandoli Siddeshwara Iresh	-	-	01	-	01
19.	Mr. Chethan Kumar N	-	-	01	-	01
20.	Mr. Shiva kumar A	-	01	01	01	03
21.	Mr. Vijay Kumar M Patil	-	-	-	02	02
22.	Mr. Anand Babu K	-	-	-	01	01
23.	Mr. Dhanraj P K	-	01	01	-	02
24.	Mr. Manu M S	-	-	02	-	02
25.	Dr. D.G. Kantharaj	03	-	06	04	13
Total		18	48	96	50	212

### Department of Civil Engineering

Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1.	Dr. Rajendra. S	01	03	12	03	19
2.	Dr. T.M. Mohan Kumar	-	01	-	01	02
3.	Prof. Nagendra. V	-	-	-	01	01
4.	Prof. Jagadeesh. C.B.	-	02	02	-	04
5.	Mr. Vijay. K	-	03	01	-	04
6.	Mr. R. Sridhar	-	-	01	-	01
7.	Mrs. Megha N Kulkarni	-	02	03	03	08

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8.	Ms. Chaithra D M	-	-	01	-	01
Total		01	11	20	08	40

### Department of MBA

Sl. No	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1	Dr. N Sandhya	04	04	02	01	11
2	Mrs. Poornima U K	06	-	06	03	15
3	Mrs. Anandamma	04	04	05	03	16
4	Mr. Ajatashatru Samal	09	07	07	04	27
5	Mr Lokesh G R	05	-	03	-	08
6	Mr. Harish K S	05	-	05	-	10
7	Mr Divya Kumar V	02	-	02	-	04
Total		35	15	30	11	91

### Department of Basic Science

#### Mathematics

Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1	Prof. M.V.Sarvesha	-	-	02	-	02
2.	Dr.D.K.Venkatalakshmi	-	-	-	01	01
3.	Mr. Vishwanath M.C	-	-	01	-	01
Total		-	-	03	01	04

#### Physics

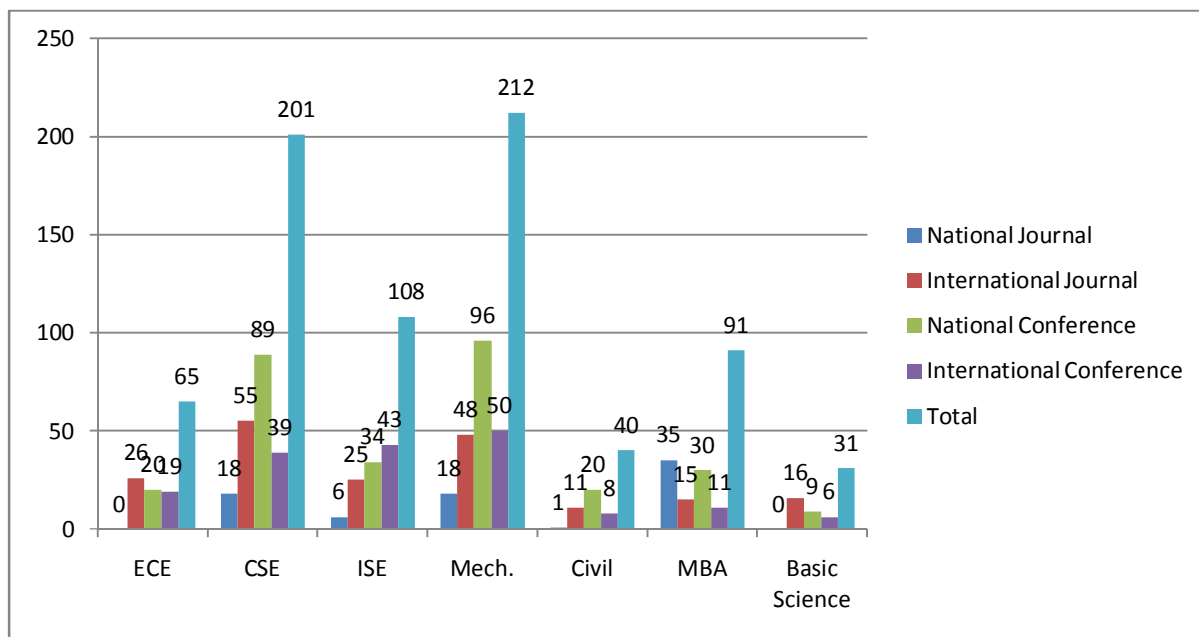
Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1	Dr. Harisha P	-	-	02	01	03
2.	Mrs. Sharada T	-	-	02	01	03
3.	Mr. Devaraja C	-	-	-	01	01
Total		-	-	04	03	07

**Chemistry**

Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1	Dr. Manjunatha K	-	14	3	2	19
2.	Prof. Mamatha M	-	1	-	-	01
Total			15	3	2	20

**Paper publication of all the departments**

Sl. No.	Department	National Journal	International Journal	National Conference	International Conference	Total
1	ECE	00	26	20	19	65
2	CSE	18	55	89	39	201
3	ISE	6	25	34	43	108
4	Mech.	18	48	96	50	212
5	Civil	01	11	20	08	40
6	MBA	35	15	30	11	91
7	Basic Science	00	16	09	06	31
Total		78	195	284	167	724



- **Monographs** - 62
- **Chapters in Books** : 2
- **Editing Books** :

Sl No	Faculty Name	No of Books
1	Mr. AjataShatru Samal	01

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- **Books with ISBN numbers with details of publishers**

### Dept. of Mechanical Engineering

Sl. No.	Name of the Author	Title of the book published	Publisher details	Remarks
1	Dr.Kapilan N, et. al.,	Elements of Mechanical Engineering	Himalaya Publishers	
2	Dr.M.S.Govinde Gowda	A Text Book of Turbo Machines	MM Publishers, Davanagere	Reference under VTU
		Heat and Mass Transfer	MM Publishers, Davanagere	
3	Dr.D.G.Kantharaj & Dr.Noor Firdoos Jahan	Business Marketing	Dhakur Publishers	ISBN:978-93-83130-88-7

### Dept. of MBA

Sl No	Book Name	ISBN	Publisher
1	Proceedings of National Conference on Contemporary Issues & Challenges in Corporate Excellence	978-81-923332-0-5	NCET
2	Emerging Trends in Management	978-81-923332-1-2	NCET
3	Research articles on Global opportunities & Challenges in Innovation & Creativity	978-81-923332-2-9	NCET

- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) : 60
- Citation Index – range / average : 0 - 142
- SNIP : 0 - 130
- SJR : 0-3
- Impact factor – range / average : 0 to 2
- h-index range : 0 to 3

3.4.4 Indicate the average number of successful M.Phil. and Ph.D. scholars guided per faculty.

1. Dr.S.G. Gopala Krishna : 01
2. Dr. N.G. S Udupa : 01
3. Dr.Y.S.Kumaraswamy : 10
4. Dr. Shivanand M. Handigund : 01

3.4.5 What is the stated policy of the College to check malpractices and misconduct in

## research?

- Plagiarism in student project reports and PhD thesis is checked. If the plagiarism check reveals more than 25% copied information, then the project report/thesis is returned to the concerned student for re-submission after making necessary corrections.
- After re-submission, the project report/thesis is again checked for plagiarism. If the % of copied information is more than 25%, the report/thesis is rejected.

### 3.4.6 Does the College promote interdisciplinary research? If yes, how many inter departmental / inter disciplinary research projects have been undertaken and mention the number of departments involved in such an endeavour.

Yes. College generally encourages inter-disciplinary research and development work. Departments are given complete freedom to interact with one another and take up mini and major projects.

Some of the inter-disciplinary projects research activities are shown in table below.

Sl.No.	Faculty names	Departments participating in inter-disciplinary research	Project Title	Collaborating Departments
Dept. of Electronics & Communication Engineering				
1	Dr. G.S. Jayadeva	ECE	Narrow Band Pass Filter for Downlink module of Nano-Satellite	CSE
2	Dr.K.N.Hari Bhat	ECE	Design of Monopole Transmit Antenna for Downlink Module of Nano-Satellite	CSE
3	Dr. G.S. Jayadeva	ECE	Designing a code for the encoding and decoding of the data by a Terminal Node Controller and its simulation for a small signal spacecraft	CSE
4	Dr. G.S. Jayadeva and Mr. H.Venkatesh Kumar	ECE	Software Defined Radio for GPS	CSE
5	Dr.K.N.Hari Bhat	ECE	Design, simulation and placement of Antenna On-Board Nano Satellites	CSE
6	Mr. H.Venkatesh Kumar	ECE	Design and Implementation of Communication Links For Satellite Studsat-2	CSE
7	Mr.G.M.Basavaraj	ECE	Design, simulation and Fabrication of microstrip patch Antenna	CSE
8	Mr. Ram Babu.K	ECE	Android Based Speed Control Of DC Motor	CSE
9	Mrs. Ashwini. S	ECE	GSM Based Automated Electricity Energy Meter Billing Generation And Electricity Theft Control System	CSE
10	Mr. Rohith. S	ECE	Secured Patient Information Hiding	CSE

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			Scheme In Medical (MRI) Images Using Reversible Data Embedding Scheme	
11	Mrs. Aruna. M	ECE	Sorting Dry Waste And Wet Waste Matter Using Robotics And Video Processing Technique	Mechanical
12	Mr. Satheesha. T. Y & Mr. Ananth Upadhya	ECE	Malignant Melanoma Detection By Bag-Of-Features Classifications	CSE
13	Mr. Satheesha. T. Y	ECE	3D Visuals Involving Automation	CSE
14	Mr. Satheesha. T. Y & Mr. C. V. Nanda Kishore	ECE	Detection Of Lungs Cancer Nodule By Using Hopfield Neural Network Algorithm	CSE
15	Dr. K.N. Haribhat	ECE	Case Study Of Power Grid Telecom Unit And Designing Of CDMA Network With Traffic Migration	CSE
16	Mrs. Rekha. K	ECE	Can & Cloud Based Oil Well Parameters Monitoring Using Compact Remote System	CSE
17	Mr. T. Y. Satheesha	ECE	Cloud Based Networked Visual Servo Control	CSE
Dept. of Computer Science & Engineering				
18	Mr. John J P	CSE	Design & Implementation of File & Memory management for Satellite operating System	ECE
19	Mr. John J P	CSE	Design & Implementation of Scheduler's for Satellite operating System	ECE
Dept. of Mechanical Engineering				
20	Dr. Kapilan N	Mechanical	Experimental Study of Storage and Oxidation Stability of Bio Diesel	Bio-Technology

### 3.4.7 Mention the research awards instituted by the College.

- Every year, top five projects in each department are awarded with certificate and cash prize.
- Best Mini projects developed by students are given awards every year.

### 3.4.8 Provide details of

\* Research awards received by the faculty

\* Recognition received by the faculty from reputed professional bodies and agencies

Sl.No.	Faculty	Department	Award / Recognitions
1	Dr N Kapilan	Mechanical Engineering	Best Paper Presentation Award. Project of the year award from KSCST.
2	Mr. Deepak C	Mechanical Engineering	First Rank in Mechanical Engineering, ICEAS, Bangalore & Cleared Gate 2 Times

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3	Dr.D.G.Kantharaj	Mechanical Engineering	Best Paper Award
4	Dr. Shantakumara B. Patil	Computer Science & Engineering	Best Paper Award , IRP, Malaysia, July 2015
5	Dr. Shantakumara B. Patil	Computer Science & Engineering	Best Paper Award, IRP, Thailand, July 2015
6	Dr. Premjyoti G. Patil	Computer Science & Engineering	Best Paper Award , IRP, Malaysia, July 2015
7	Dr. Premjyoti G. Patil	Computer Science & Engineering	Best Paper Award , IRP, Thailand, July 2015
8	Mr. Gopinatha A R	Computer Science & Engineering	Best Paper Award, IRP, Malaysia, July 2015
9	Dr. Shivanand M. Handigund	Information Science & Engineering	DBLP 11 papers are enlisted in world famous DBLP.
10	Dr. Shivanand M. Handigund	Information Science & Engineering	Prize received by IAENG (International Association of Engineers) organized in London, UK

### 3.4.9 State the incentives given to faculty for receiving state, national and international recognitions for research contributions.

Six technical papers based on the research work written by our faculty were accepted for presentation and publications in reputed international conferences at Singapur, Hong Kong, Malasiya, Bangkok etc., The concerned teachers were given financial support and leave benefit to participate in the conferences.

About 250 technical papers have been published in reputed national and international journals by our faculty. In most of the cases management has given them financial support to prepare and publish their papers.

## 3.5 Consultancy

### 3.5.1 What is the stated policy of the College for structured consultancy? List a few important consultancy services undertaken by the College.

College encourages the faculty to involve in consultancy works.

Few important consultancy services are as follows

Sl.No.	Type of Work	Industry/Agency involved	Faculty involved	Year	Amount Generated
Dept. of Civil Engg.					
1	3rd Party Inspection	Government Projects	All Faculty	2012-13 2013-14 2014-15	4,00,000/-
2	Steel Testing , Soil Testing, Cube Testing, Core Aggregate, Bricks	Private Construction Companies	All Faculty	2012-13 2013-14 2014-15	1,50,000/-

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	Testing etc.				
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### 3.5.2 Does the College have College-industry cell? If yes, what is its scope and range of activities?

YES

- College has Industry College Interaction Committee which meets regularly to plan for the industry interaction activities.
- Industry College Interaction Committee plans for the MOUs with industry.
- College organizes visits of faculty and students to industry for interaction
- College organizes visits of students to industrial exhibitions.

### 3.5.3 What is the mode of publicizing the expertise of the College for consultancy services? Mention the departments from whom consultancy was sought.

By interacting with industries and personal contacts. Civil department is doing the consultancy work, Government of Karnataka and Private companies.

### 3.5.4 How does the College encourage the faculty to utilise the expertise for consultancy services?

- The college permits faculty members to take up consultancy work with industries or any other external agencies in their area of expertise to promote intellectual exchange. If necessary PG and UG students are also involved in the execution.
- The college provides necessary facilities and monetary benefits to the faculty who will take up the consultancy.
- Further faculty with consultancy work is given less academic work load.

### 3.5.5 List the broad areas of consultancy services provided by the College and the revenue generated during the last four years.

Sl.No.	Type of Work	Industry/Agency involved	Faculty involved	Year	Amount Generated
Dept. of Civil Engg.					
1	3rd Party Inspection	Government Projects	All Faculty	2012-13 2013-14 2014-15	4,00,000/-
2	Steel Testing , Soil Testing, Cube Testing, Core Aggregate, Bricks Testing etc.	Private Construction Companies	All Faculty	2012-13 2013-14 2014-15	1,50,000/-
Dept. of Computer Science					
1.	Online Examinations	TCS-ion		2013-14 to 2015-16	4,00,000/-

### 3.6 Extension Activities and Collegial Social Responsibility (ISR)

#### 3.6.1 How does the College sensitize the faculty and students on Collegial Social Responsibilities? List the social outreach programmes which have created an impact on students' campus experience.

College sensitize the faculty and students on CSR by organising the following programme

- The college organizes Internet Training Programme for school children from rural area every year to train them with use of internet facility.
- Blood donation camp is organized at regular intervals in collaboration with Deputy Commissioner's Office, Chickaballapur to make the blood easily available to needy people from villages.
- Free dental check up camp is organized for the benefit of people from villages situated around the college.
- Tree Plantation
- Organising World Environment day
- College organises expert lectures to the nearby government schools.

#### 3.6.2 How does the College promote College-neighborhood network and student engagement, contributing to holistic development of students and sustained community development?

- College actively involves in the social services and also encourages staff members & students to promote social services which can increase college-neighborhood- community network.
- Student community is benefited by the implementation of reservation schemes in the admission.
- Economically weaker section students are offered with scholarship and concession is given in the fees.
- Social activities like blood donation camp, Tree Plantation etc. are organized regularly.
- Student Internet World, a computer training program for the rural high school students is held every year in association with the Government of Karnataka.
- Conducting counselling by ISKON

#### 3.6.3 How does the College promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?

College always promotes the Social Service activities. Student Welfare Officer

plans such activities and encourages the students to participate.

College organizes Blood Donation camp in association with Red Cross Society and Rotary Club Bangalore every year. It also organizes Engineers day, Tree Plantation day etc. During natural calamities like earthquake, cyclones etc. Staff and Students are advised to donate the funds.

All these activities are highlighted through the circulars and web notifications.

### 3.6.4 Give details on social surveys, research or extension work (if any) undertaken by the College to ensure social justice and empower the under-privileged and most vulnerable sections of society?

College adopted many schemes to ensure the social justice.

- College offers fees concession to the metorious financially weak students.
- College helps and guides the students to get more scholarships from different governmental and non governmental agencies.
- College organizes “Student Internet World” a training program for the rural high school students every year.
- College has SC/ST book bank scheme in the library.

### 3.6.5 Give details of awards / recognition received by the College for extension activities / community development work.

- For extending excellent co-operation for the conduct of student internet world, the college has received “Letter of Appreciation” from DDPI, Government of Karnataka.
- Certificate of appreciation is issued from the Department of Blood Bank, Victoria hospital, Bangalore Medical College towards organizing the blood donation camp effectively.
- Certificate of appreciation is issued from Indian Red Cross Society, Bangalore in recognition of the outstanding efforts in organizing Mobile Blood Drive for the benefit of needy people.
- Letter of appreciation from the Deputy Commissioner-cum-Returning Officer for rendering excellent co-operation and service during the Lokha Sabha elections to store the EVMs and subsequent counting of votes.

### 3.6.6 Reflecting on objectives and expected outcomes of the extension activities organized by the College, comment on how they complement students’ academic learning experience and specify the values and skills inculcated?

Extension and academic activities always go simultaneously. An extension activity inculcates the values and skills like:

- Improvement in the leadership quality.
- Development of team spirit and entrepreneurial qualities.
- Increase in the ethical responsibilities.
- Health and hygiene and Social service.
- National Integration etc.

**3.6.7 How does the College ensure the involvement of the community in its outreach activities and contribute to the community development? Detail the initiatives of the College which have encouraged community participation in its activities.**

- College has employed about 150 people from surrounding villages to various positions such as gardening, housekeeping, security, maintenance, transport, attenders, and cooks in hostel mess etc.
- College has created employment opportunities to a good number of teaching and non-teaching staff from neighboring villages.
- Various types of maintenance work such as electrical, plumbing, carpentry, building painting etc. of the college are awarded to local people.
- The College invites the members of the public to participate in all its reach out activities. Management is giving fee concession to meritorious students from nearby villages.

**3.6.8 Does the College have a mechanism to track the students' involvement in various social movements / activities which promote citizenship roles?**

- Student Counselor keeps track of the record of student involvement in different social activities.
- Student Welfare Officer also maintains the record about the various Social activities and contribution of the individual student.
- Cultural coordinator and Director of physical education maintain participation and achievement records of students in various cultural and sports activities.
- College actively uses Social Medias like Facebook. Staff members, Students and alumni students are the members of Facebook account. The activities and achievements of the students are posted in the account regularly.

**3.6.9 Give details on the constructive relationships (if any) with other colleges in the nearby locality in working on various outreach and extension activities.**

- In association with Red Cross Society and Rotary Club Bangalore, Blood Donation camp is held every year.
- In association with Government of Karnataka, Computer training program "Student Internet World" for the high school students is held every year.
- In association with ISHRAE chapter Bangalore, a Tree Plantation Day is held.
- Consultancy Services are given to various Governmental agencies like PWD, Municipalities, Irrigation Department etc., in the surrounding areas.

### 3.6.10 Give details of awards received by the college for extension activities and/contributions to the social/community development during the last four years.

- For extending excellent co-operation for the conduct of student internet world, the college has received “Letter of Appreciation” from DDPI, Government of Karnataka.
- Certificate of appreciation is issued from the Department of Blood Bank, Victoria hospital, Bangalore Medical College towards organizing the blood donation camp effectively.
- Certificate of appreciation is issued from Indian Red Cross Society, Bangalore in recognition of the outstanding efforts in organizing Mobile Blood Drive for the benefit of needy people.
- Letter of appreciation from the Deputy Commissioner-cum-Returning Officer for rendering excellent co-operation and service during the Lokha Sabha elections to store the EVMs and subsequent counting of votes.

### 3.7 Collaboration

#### 3.7.1 How has the College’s collaboration with other agencies impacted the visibility, identity and diversity of activities on the campus? To what extent has the College benefitted academically and financially because of collaborations?

- The college has MOUs with several agencies for the empowerment of students and staff. It has academically improved the quality of teaching learning process

Sl.No	Company Name	Collaborating Department/s	MOU Date
1	BOSCH, Bangalore	Mechanical	01/03/2015
2	NMIT, STUDSAT2	ECE, Mech CSE, ISE	06/06/2012
3	Oracle	CSE	20/01/2015
4	Data Talk Services I Pvt Ltd.	CSE, ISE	19/08/2015
5	EI Technologies Pvt Ltd	Civil	15/09/2015
6	EI Technologies Pvt Ltd	CSE	15/09/2015
7	EI Technologies Pvt Ltd	Mech	15/09/2015
8	EMC <sup>2</sup>	CSE	
9	NIIT, Yelahanka	CSE	14/02/2014
10	Nagarjuna Construction Company	Civil	17/02/2014
11	TCS ion	Mathematics, CSE, ISE	01/05/2013

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12	Global Harmonix	NCET	24/06/2014
13	ISCT	Civil	10/09/2015
14.	Texas Instruments	EC	Dec 2015

- The college has MOUs to conduct online examinations of Government and Private agencies
- In association with Government of Karnataka, Computer training program “Student Internet World” for the high school students is held every year.
- The college has several student chapters of CSI, ISTE, ISHRAE and ASHRAE for the academic improvement of the students and staff.
- College has taken-up few consultancy services of various governmental agencies like PWD, Municipalities, Irrigation Department etc., in the surrounding areas.

### 3.7.2 Mention specific examples of, how these linkages promote

#### Curriculum development

Curriculum was enriched by conducting several workshops / seminar / guest lectures / FDP / industrial visits etc

#### Internship, On-the-job training

Students get Internship in HMT, TATA etc and on-the job training in industries

#### Faculty exchange and development

Faculty development programme / workshops / seminars were conducted in association with professional societies such as ISHRAE, ASHRAE etc

#### Research, Publication

#### Paper publication of all the departments

Sl. No.	Department	National Journal	International Journal	National Conference	International Conference	Total
1	ECE	00	26	20	19	65
2	CSE	18	55	89	39	201
3	ISE	6	25	34	43	108
4	Mech.	18	48	96	50	212
5	Civil	01	11	20	08	40
6	MBA	35	15	30	11	91
7	Basic Science	00	16	09	06	31
Total		78	195	284	167	724

#### Consultancy, Extension

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Sl.No.	Type of Work	Industry/Agency involved	Faculty involved	Year	Amount Generated
Dept. of Civil Engg.					
1	3rd Party Inspection	Government Projects	All Faculty	2012-13 2013-14 2014-15	4,00,000/-
2	Steel Testing , Soil Testing, Cube Testing, Core Aggregate, Bricks Testing etc.	Private Construction Companies	All Faculty	2012-13 2013-14 2014-15	1,50,000/-

### Student placement :

Sl No.	Name of the company	Branch / Number of students placed			
		2014-2015	2013-2014	2012-2013	2011-2012
	Sand Cube Analytics	EC -10 CS - 7 ME- 3 CV- 5	EC- 10 CS - 11 IS - 6		
	100 Bricks	CV - 5			
	Sudarshan	CV - 15	CV- 5		
	Infosys	EC - 1 CS - 1 IS - 1	EC - 3 CS - 5 IS - 2		CS-10 BT-6 IS-2 EC-19 ME-4
	Microland	EC - 2 CS - 3			
	IBM	EC - 2 CS - 2 ME - 1	CS - 5	EC - 2 CS - 1	
	Sigma Solutions	EC - 1 CS - 2			
	Peol Solutions	CS - 2			
	Good Through Software	CS - 2 IS - 2			
	Westline Shipping	EC - 6 ME - 4			
	Eldaas Technology	EC - 5 (Hold)			
	Accurate	ME - 20			
	ETA Engineering	ME - 2			
	Brakes down	ME - 24			
	IBM-GPS		EC- 2 IS - 2		
	Alufit			CV-5	

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	DCM-Shriram			CV-5	CS-1 ME-2
	KNK Next Gen			CV-2	
	Exhilant			CS-1 EC-2 IS-2	CS-9 EC-4
	Mphasis			CS-2 EC-4 IS-3	
	Josaiah Tech			CS-17 EC-27 ME-5 IS-7	
	Jobs Mill for Google			CS-6 EC-1 IS-3	
	Sasken			CS-1 EC-1	
	UTBS			CS-2 EC-3	
	Wenger and Watson			CS-2 IS-1 ME-1	
	Nurture Software			CS-1	
	Spectrum Telesolutions			EC-21	
	Pheonix maritime			IS-3 ME-3	
	MOOG			ME-1	
	Solution Infini			ME-1	
	Textron			ME-1	
	Cordys				CS-1

3.7.3 Does the College have MoUs nationally / internationally and with colleges of national importance/other universities/ industries/corporate houses etc.? If yes, explain how the MoUs have contributed in enhancing the quality and output of teaching-learning, research and development activities of the College?

Institute has MOUs with leading industries and the list of MOUs is given in the following table.

Sl.No	Company Name	Collaborating Department/s	MOU Date
1	BOSCH, Bangalore	Mechanical	01/03/2015
2	NMIT, STUDSAT2	ECE, Mech CSE, ISE	06/06/2012
3	Oracle	CSE	20/01/2015
4	Data Talk Services I Pvt Ltd.	CSE, ISE	19/08/2015
5	EI Technologies Pvt Ltd	Civil	15/09/2015
6	EI Technologies Pvt Ltd	CSE	15/09/2015
7	EI Technologies Pvt Ltd	Mech	15/09/2015
8	EMC <sup>2</sup>	CSE	
9	NIIT, Yelahanka	CSE	14/02/2014

10	Nagarjuna Construction Company	Civil	17/02/2014
11	TCS ion	Mathematics, CSE, ISE	01/05/2013
12	Global Harmonix	NCET	24/06/2014
13	ISCT	Civil	10/09/2015
14	Texas Instruments	ECE	Dec 2015

**The outcome of MOUs:**

- Establishment of lab facilities as per the industry specifications.
- Internships to students for carrying out project work.
- Funding proposals can be submitted jointly with industries.
- In one of the collaborative projects with IIT Bombay, Mumbai, three of our students have won second prize at national level Robotics competition held at IIT B, Mumbai. These three students have been absorbed as research assistants at IIT B, Mumbai.
- In another collaborative project with BOSCH, research is satisfactorily progressing which is likely to lead to a special product development.

**3.7.4 Have the College industry interactions resulted in the establishment / creation of highly specialized laboratories / facilities?**

NCET has been recognized as the Centre of Innovative Science and Engineering Education by VGST, Department of IT, BT and Science & Technology, Government of Karnataka. A separate dean for industry institute interactions is appointed to take care of these activities.

*Any additional information regarding Research, Consultancy and Extension, which the college would like to include.*

## CRITERION IV

### INFRASTRUCTURE AND LEARNING RESOURCES

#### 4.1 Physical Facilities

4.1.1 How does the College plan and ensure adequate availability of physical infrastructure and ensure its optimal utilization?

- Institution has excellent infrastructural facilities which are beyond AICTE norms.
- Institute regularly upgrades its existing infrastructure depending on the new programmes introduced and increase in student intake.

4.1.2 Does the College have a policy for creation and enhancement of infrastructure in order to promote a good teaching-learning environment? If yes, mention a few recent initiatives.

The institute has a policy of establishing the required infrastructural facilities as per AICTE and VTU norms to facilitate effective teaching and learning. The institute has made provision to create extra infrastructural facilities to meet the changes in the curriculum, student strength and introduction of new courses.

The various infrastructural facilities which are being developed and planned are as follows.

- Establish the physical facilities like Buildings with Class rooms, Laboratories, Seminar Halls, staff rooms, R&D centers, rest rooms etc. All these facilities are constructed as per AICTE norms with lot of light, ventilation and extra space for free movement of the students. Further, provision is made in each building for its vertical growth.
- Laboratory equipments, devices, computers and related softwares are procured in a systematic way and upgraded based on the changing curriculum and intake.
- To continuously strengthen the library, to cater to the needs of students and staff. Policy of the institution is that the library should have spacious lending section, reference section for journals in print form, reference section for E-Journals and E-Books, news paper and general periodical section and reprographic section.
- Wifi infrastructural facility is being strengthened every year continuously. OFC underground cables are laid to act as backbone and also to increase the efficiency of the connectivity.
- The campus is designed and landscaped in such way that the campus is full of trees, well maintained gardens, animal house,

waste water treatment plant, vehicle parking, solar power harnessing etc.

- To increase supporting facilities like Hostel blocks, canteen, transport, indoor and outdoor game facilities, Gymnasium, staff quarters etc.

HODs are entrusted with the responsibility of preparing the budget of their department taking into account all the requirements. The budget is prepared in consultation with principal. The budget so prepared is sent to the Governing Body of the college for approval.

Once the budget is approved, it is sent to the purchase section to call for quotations. Generally purchase is not made without a minimum of three quotations. Further the purchase section scrutinizes the quotations for correctness of specifications. Based on the quotations comparative statement is prepared. The vendors are called for negotiations and the final supplier is selected. Comparative statement with details of selected vendors is sent to a high level committee for approval. After approval is given the purchase order is issued.

Major building Construction work taken up during the last four years is given below.

Sl.No.	Name of the Block/Construction	Cost of Work
1.	Hostel Block No. 8	Rs. 3.88 crores
2.	Hostel Mess and Dining Hall	Rs. 2.32 crores
3.	Hostel Block No. 7	Rs. 3 crores
4.	Girls Hostel Block No. 2	Rs. 3.2 crores
5.	Auditorium	Rs. 0.6 crore
6.	Library Block third floor	Rs. 1.97 crores
7.	Canteen Block	Rs. 3.60 crores
8.	Mechanical Block	Rs. 1.80 crores
9.	General works	Rs. 1.06 crores
10.	100KW Solar Rooftop power plant	Rs. 1.00 crore
11.	Sewage Treamenet Plant	Rs. 0.60 crore

## 4.1.3 Does the College provide all departments with facilities like office room, common room, and separate rest rooms for women students and staff?

Yes, The facilities like office room, common room, separate rest rooms for women are available in all departments and the details are as given below:

Sl No	Description	Office Room		Common room		Rest room for women	
		No.	Area in SqM	No.	Area in SqM each	No.	Area in Sq.M each
1	EC Dept	1	20	4	42	3	42
2	CSE Dept	1	20	3	42	3	42
3.	ISE Dept	1	20	2	42	1	42
3	Civil Dept	1	20	2	42	2	42
4	Mechanical Dept	1	20	1	42	1	42
5	Library Block	1	20	2	42	2	42

## 4.1.4 How does the College ensure that the infrastructure facilities meet the requirements of students/staff with disabilities?

Institute follows government policies for the differently abled students during their study period in the college. Further, Special arrangements are made at the time of tests and examinations to enable them to perform better. The college has provided ramps and wheel chair facility for the benefit of students with physical disabilities.

## 4.1.5 How does the College cater to the residential requirements of students? Mention

### • Hostel Facility:

Institute has separate hostel blocks for Boys and Girls inside the campus. Boys hostel has 07 blocks with total capacity of 800 and Girls hostel has 02 blocks with total capacity of 200. Mess and Wi-Fi internet facility is provided in the hostel. Round the clock security and solar hot water are also available. All hostel blocks are provided with water purifiers. Surveillance cameras are installed in the hostel blocks for the safety and security of the students. Power back up is available to give uninterrupted power supply to both college and hostel.

### • Recreational facilities, gymnasium, yoga center, etc:

Institute has indoor games facility like chess, carom and table tennis etc. Outdoor games like cricket, volley ball, football, throw ball, Kabbaddi, Khokho are available. Gym facility is also available in the campus.

Quality movies are screened during weekends/ holidays in the auditorium. Beauty parlour facility is available in the ladies hostel. During weekends and holidays special transportation arrangement is made from the college campus to different important locations of

Bangalore city to enable hostel students to attend to their needs.

- **Computer facility including access to internet in hostel:**

All hostel blocks are provided with 45 MBPS Wi-Fi internet connectivity.

- **Facilities for medical emergencies:**

Institute provides medical assistance to needy students. Doctor visits the hostel to take care of the health and medical needs of the students. In addition, Institute has an MOU with Akash Hospital, Devanahalli and round the clock transport facility is available to go to the hospital.

- **Library facility in the hostels:**

Main Library which is in the campus works from 8.30 am to 10.00 pm. The library is kept open on holidays also. During the examination time the library is kept open till midnight. The hostel students can use this facility. The college issues four cards for every student to borrow the books for a period of fifteen days. In addition the college also has SC/ST Book Bank facility and the Student Book Bank facility, where the students can borrow the books for the entire semester. In addition to these facilities, the students are provided with overnight borrowing facility also. An additional library facility is provided in the Girls hostel.

- **Residential facility for the staff is available:**

Staff quarters are available with all facilities.

- **Constant supply of safe drinking water:**

All departments of the college, Hostel blocks and Staff Quarters are provided with water purifiers for the supply of safe drinking water.

- **Security:**

Campus has round the clock security. Entire campus is under CCTV Surveillance.

### 4.1.6 How does the College cope with the health related support services for its students, faculty and non-teaching staff on the campus and beyond?

- Institute provides medical assistance to needy students.
- A doctor visits the campus every alternate day and if need arises, on request immediately attends to the needs.
- Institute has an MOU with Akash Hospital, Devanahalli.
- Students can utilize the transport facility to go to the hospital.
- Students and Staff are covered with group insurance.
- First aid box is available in all the laboratories.

### 4.1.7 What special facilities are made available on the campus to promote interest in sports and cultural events?

- **Sports, outdoor and indoor games, gymnasium:**
  - Students are encouraged to participate in outdoor and indoor games. The institution have well trained boys teams in foot ball, basket ball, cricket, kabbaddi, throw ball, Kho Kho etc and institution also have well trained girls teams in badminton, throw ball, basket ball etc.
  - The institution encourages students to participate in outdoor and indoor games at university level, state level and national level.
  - The institution also has organized several zonal and inter zonal sports competitions in both outdoor and indoor games at university level.
  - Spacious outdoor game fields to play the above said games are available.
  - Indoor games such as table tennis, chess, carom etc, for both men and women are available.
  - Interdepartmental level sports competitions are held every year and winners are awarded prizes on the sports day.
  - Students are allowed to participate in sports activities. In addition three well trained and qualified Physical Education Directors are available to guide the students.
  - Multi station Gym facility is also available in the campus.
- **Auditorium:**

An auditorium with seating capacity of 500, equipped seating facility, stage, podium, public address system, LCD projector is available. The auditorium is Air Conditioned. In addition, there are three air conditioned seminar halls in the college with audio video facilities.
- **NSS, NCC:**

The institution has NSS unit which actively undertakes activities such as Blood donation camp, Dental camp, Eye check up camp, Environmental awareness programmes and Internet training programme for high school students.
- **Cultural activities:**
  - An Inter collegiate cultural fest “IKYA” is celebrated to showcase the cultural talent of the students. This fest attracts participants from more than 20 institutions.
  - Institute has Cultural Club, which encourages the active participation of the students in cultural events.
  - Students are permitted to take part in the cultural competitions organized by the university or other colleges.
  - Institution also has various talent development clubs such as music club, photography club etc.
  - Institution organizes inter class cultural competitions at regular intervals.

- Cultural competitions such as Rangoli, Mehendi, Ekkebana, Face painting, DJ, Street dance, Fashion show, Collage etc. are conducted and prizes are awarded to winners and runners.
- Institution also organizes Ethnic day, Rainbow week, Onam and Ganesh utsav celebration.
- **Communication Skill:**
  - Communication skill development training programmes are being conducted in the college for the benefit of the students.
  - Quiz and debate competitions are arranged to improve the public speaking skills.
  - Students are encouraged to perform master of ceremony, welcome speech, vote of thanks etc to improve public speaking ability.
  - Professional doctors are invited to give awareness about health and hygiene.

### 4.2 Library as a Learning Resource

#### 4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives

Yes,

Our College library has an advisory committee consisting of one of the HODs as chairman, Senior Faculty as members, Librarian as member secretary and Principal as convener.

Library advisory committee meets twice in each academic year. The committee looks in to following activities.

- Requirement of books, Journals and E-resources are received from the staff and students through the HODs of all the departments.
- Budget allocation for purchase of books, subscription of E-resources and other requirements.
- Identifying authorized book publishers and suppliers.
- Approval of quotations and placing orders for purchase.
- Planning for library extension activities.

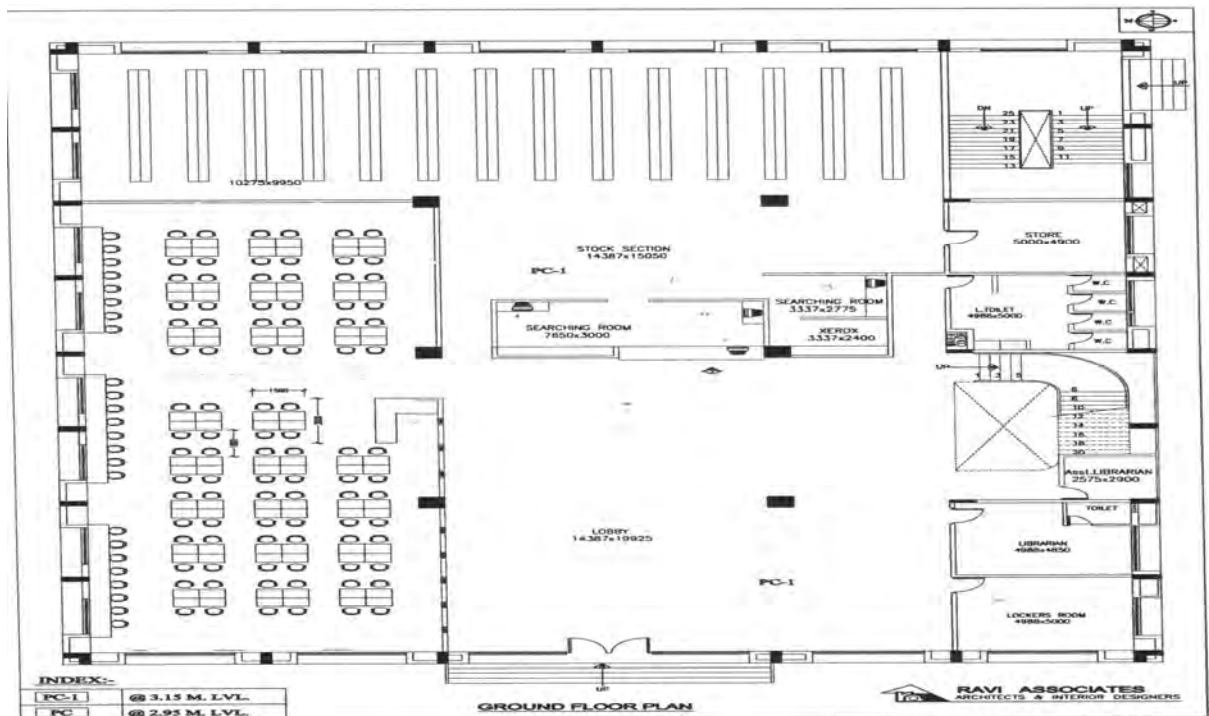
Dr.S.G.Gopala Krishna, Principal, is a member in the Advisory Committee of the University for establishing “VTU Consortium for E-resources”.

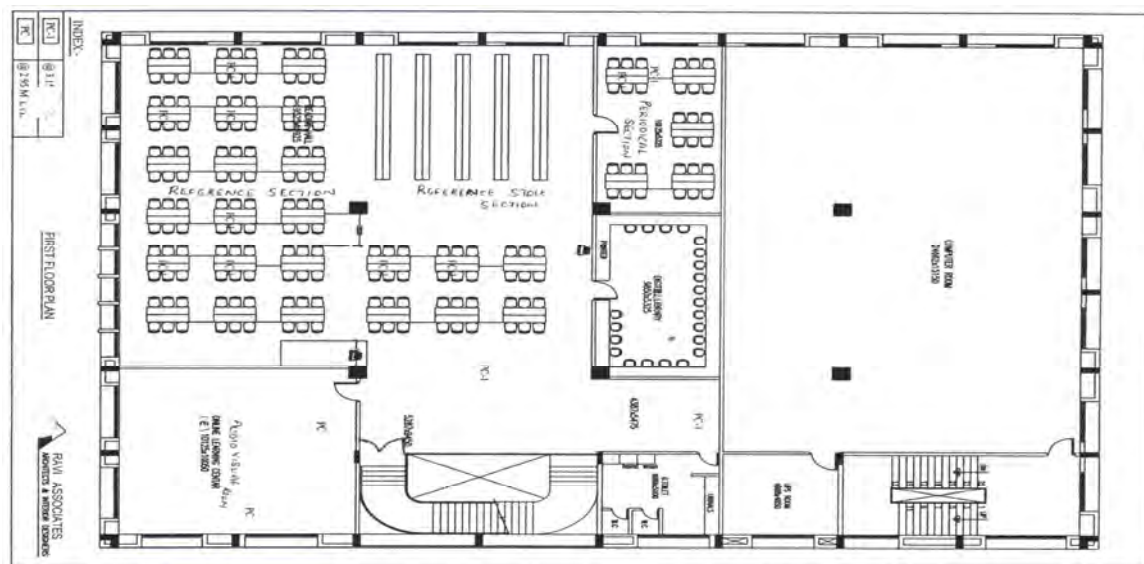
Mr.Shekar.K, Librarian, regularly attends the meetings at the University.

## Self Study Report - 2015

### 4.2.2 Provide details of the following:

- Total area of the library (in Sq. Mts.): **2000 Sq. Mts.**
- Total seating capacity: **450**
- Working hours (on working days, on holidays, before examination days, during examination days, during vacation)
  - 8.30 AM to 10 PM on working days
  - 9AM to 4PM on holidays
  - 8.30 AM to 12 midnight during examination days
- Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)





#### 4.2.3 Give details on the library holdings

##### a. Print :

Books	Back Volumes	Thesis
40600	702	-

##### b. Non Print (Microfilms, AV)

135 NPTEL Videos and 2900 AVs

##### c. Electronic (e-books, e-Journals)

e-books	e-journals
14004	9958

d. **Special collection** (eg. Text book, Reference books, standards, patents)

Text/Reference Donated books	Standards	Conference Proceedings	Competitive/ General Books
423	3043	6514	691

### 4.2.4 What tools does the library deploy to provide access to the collection?

- **OPAC**

Yes, it is an online catalogue. Library users can search the database through WEB OPAC.

- **Electronic Resource Management package for e-journals**

Yes, subscribed through VTU Consortium

- **Federated searching tools to search articles in multiple databases**

Yes, through Knimbus and J-Gate

- **Library Website**

Yes, <http://www.nagarjunaeducation.com/ncet/library.html>

- **In-house/remote access to e-publications**

Yes, Access is IP based.

### 4.2.5 To what extent is the ICT deployed in the library?

- **Library automation**

Yes, LIBSOFT software from Environ Software Pvt. Ltd.,

- **Total number of computers for public access**

20 Nos.

- **Total numbers of printers for public access**

02 Nos.

- **Internet band width/ speed**

45 mbps

- **Institutional Repository**

Learning Management System is made available in the website.

- **Content management system for e-learning**

Yes, through Knimbus and J-Gate

- **Participation in Resource sharing networks/consortium (like Inflibnet)**

Yes,

- DELNET – AICTE
- VTU – Consortium
- Computer Society of India membership for resource sharing
- CMTI
- Library provides e books for the other colleges through Inter Library Loan scheme (ILL).

4.2.6 Provide details (per month) with regard to

- Average number of walk-ins: **250/day**
- Average number of books issued/returned: **180/day**
- Ratio of library books to students enrolled: **1:4**
- Average number of books added during last three years: **5225**

**Books**

- Average number of login to opac (OPAC) : **80/day**
- Average number of login to e-resources: **35/day**
- Average number of e-resources downloaded/printed : **150/month**
- Number of information literacy trainings organized per semester
- Details of “weeding out” of books and other materials
- Books are identified based on their condition and usage, as non-serviceable and weeded out.

4.2.7 Give details of the specialized services provided by the library

- Manuscripts
  - Back volumes of the journals.
  - Project reports (UG and PG) of previous years.
  - Learning Management System
  - Laboratory manuals, Course materials, softcopy of the previous examination question papers, Reference

**Yes, 7200 Books**

- Reprography :

**Yes, available.**

- ILL (Inter Library Loan Service)

**Yes, through DELNET-AICTE**

- Information deployment and notification

**Yes, Information is displayed on the notice board and class circulation from time to time. Web OPAC has the facility to display new book arrivals.**

- Download

**Yes, subscribed e-resources can be downloaded.**

- Printing

**Yes,**

- Reading list/ Bibliography compilation

**Yes, available through online catalogue**

- In-house/remote access to e-resources

**Yes, through IP based**

- User Orientation and awareness

The Library Orientation program offers students and staff awareness about the availability of library's resources and services, as well as information is displayed on the notice board from time to time for awareness.

## Self Study Report - 2015

- Assistance in searching Databases

Yes, through WEB OPAC. Library staff also helps the students and staff in searching the database.

- INFLIBNET/IUC facilities  
We have DELNET-AICTE having similar functions as INFLIBNET/IUC

### 4.2.8 Provide details on the annual library budget and the amount spent for purchasing new books and journals.

Library Details	2014-15			2013-14			2012-13			2011-12		
	Alloted Budget	No	Total Cost	Alloted Budget	No.	Total Cost	Alloted Budget	Number	Total Cost	Alloted Budget	Number	Total Cost
Text books		986	4,78,779		1965	9,68,947		2318	10,26,712		3184	13,40,670
Print Journals	22,00,000	15	10835	22,00,000	15	10970	22,00,000	105	1,57,300	32,00,000	92	1,32,755
e-resources		10 Publishers	12,98,022		07 Publishers	10,05,588		03 Publishers	7,69,679		10 Publishers	14,69,438

### 4.2.9 Does the library get the feedback from its users? If yes, how is it analyzed and used for improving the library services.

The feedback is taken from the students of the present and leaving batch through our feedback format and analyzed by the library committee and the remarks are recorded for further improvement. In addition, feedback is also taken from the staff members on the quality of service in the library feedback form.

### 4.2.10 List the infrastructural development of the library over the last four years.

Description/Year	2014-15	2013-14	2012-13	2011-12
Equipment Consumables AMC Binding DELNET	61055	1,80,543	2,81,435	53,508

### 4.2.11 Did the library organize workshop/s for students, teachers, non-teaching staff of the College to facilitate better Library usage?

Yes, The Library Orientation program offers students and staff awareness about the availability of library's resources and services.

## 4.3 IT Infrastructure

### 4.3.1 Does the College have a comprehensive IT policy addressing standards on IT Service Management, Information Security, Network Security, Risk Management and Software Asset Management?

- Yes, The college has connected every system into a one LAN with high security from cyberoam and personal pc has been protected by kaspersky anti virus.
- The college has Microsoft Open Value Licencing agreement (**V1941150 effective date 2015-08-31**) for different softwares.
- The college providing the internet services for all its users on user ID basis to monitor the browsing of students and faculty.

### 4.3.2 Give details of the College's computing facilities (hardware and software).

- Number of computers with Configuration (provide actual number with exact configuration of each available system):
  1. PIV [80 GB HDD, 512 MB RAM, 14 'CRT' Monitor]– 147 no.s
  2. Dual Core [80 GB HDD, 512 MB RAM, 14 'CRT' Monitor ]– 58 no.s
  3. Core 2 Duo [250 GB HDD, 1GB RAM, 14 'LCD' Monitor ]– 271 no.s
  4. ACER i3 [500 GB HDD, 4GB RAM, 19 'TFT' Monitor ]– 96 no.s
  5. HP i3 [500 GB HDD, 4GB RAM, 19 'TFT' Monitor ]– 52 no.s
  6. Lenovo i3[500 GB HDD, 4GB RAM, 19 'TFT' Monitor ]– 101 no.s
- Computer-student ratio: 1:4
- Stand alone facility: All systems are networked.
- LAN facility:
  - 100/ 1G [Dept & All Computer Labs, Block to Block OFC Connectivity]
- Wifi facility:
  - 45MBPS leased line.
- Licensed software:

Windows 2007 professional	32 /64
Microsoft office 2010 family	2010
Office 2000	2000
Windows NT Server	4.0
Windows Server 2008 R2	R2
Windows Server standard Edition 2003 – SP1	SP-1
Microsoft Visual Studio 6	6.0
Microsoft Visual Studio 2010	2010

Oracle 8i	8i
Oracle 10g	10g
Fedora Core 1	1.0

- Number of nodes/ computers with Internet facility: **725 Nodes**

### What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

- The institution plans for the up gradation in IT infrastructure as per the requirements.
- Institution usually upgrades the PCs for the latest configuration.
- Periodically increases the bandwidth of internet. The bandwidth has been increased from 10 mbps to the present 45 mbps gradually.
- Encourages to purchase and use Industry specific software.
- Use of internet is monitored and user based policy is applied for Students and Staff.
- Restricted access to the various web sites.

### 4.3.3 Give details on access to online teaching and learning resources and other knowledge, and information provided to the staff and students for quality teaching, learning and research.

Our institution has been recognized as the Nodal Center for Virtual Lab facilities sponsored by MHRD, GOI and supported by all IITs and IISc. This facility is being used by staff and students.

The screenshot shows the VALUE @ Amrita website. The header includes the Amrita Vishwa Vidyapeetham logo and the text 'Virtual Amrita Laboratories Universalizing Education'. The main content area displays a table titled 'Top 5 institutes in India, based on Virtual Lab usage for the year 2015'. The table lists five institutes with their respective percentage of usage and rank. Below the table, there are footnotes explaining the basis of the percentage and the ranking.

Institute/Organization	Percentage of usage*	Rank#
BMS College of Engineering	10.85%	1
Marwadi Education Foundations Group of Institutions	6.68%	2
Nagarjuna College of Engineering and Technology	6.23%	3
Ramco Institute of Technology, Rajapalayam	4.91%	4
Er. Perumal Manimekalai College of Engineering, Hosur	4.38%	5

\* Percentage of usage is based on the total usage of all the institutes using virtual labs from January 2015 onwards.  
 #The rankings are given based on current usage of virtual labs.

### 4.3.4 Give details on the ICT enabled classrooms/learning spaces available within the College and how they are utilized for enhancing the quality of teaching and learning.

- The institution has adequate computer facility with internet connection for faculty members so they can prepare course materials easily.
- Course material is made available through Learning Management System in the college website.
- The faculty and students are given access to NPTEL, EDUSAT and other e-resources available in the library.
- Faculty members use LCD projectors available with the departments.
- Virtual lab facility is being used by the staff and students.
- The internal tests for the subjects CIV and CIP are conducted online.
- Online feedback system is available.

### 4.3.5 How are the faculty facilitated to prepare computer aided teaching-learning materials? What are the facilities available in the College or affiliating University for such initiatives?

- The institution has been recognized as the Nodal Center for Virtual Lab facilities sponsored by MHRD, GOI and supported by all IITs and IISc. This facility is being used by staff and students.
- The institute has EDUSAT facility sponsored by VTU and is supported by ISRO.
- The institute has NPTEL videos available for students and staff.
- The institute has prepared video lectures of lab courses for the benefit of students.
- All the staff members prepare their course plans using Learning Management System (MOODLE based).
- A discussion forum for each course is made available to the students through LMS to get their doubts clarified with the respective course teachers.

### 4.3.6 How are the computers and their accessories maintained? (AMC, etc.)

- Computers, printers and other peripherals' are generally maintained by the system maintenance department for the entire campus.
- UPS maintenance has been outsourced to an agency.

### 4.3.7 Does the College avail of the National Knowledge Network connectivity directly or through the affiliating University? If so, what are the services availed of?

- The institution has been recognized as the Nodal Center for Virtual Lab facilities sponsored by MHRD, GOI and supported by all IITs and IISc. This facility is being used by staff and students.
- The institute has EDUSAT facility sponsored by VTU and is supported

by ISRO.

- The institute has NPTEL videos available for students and staff.

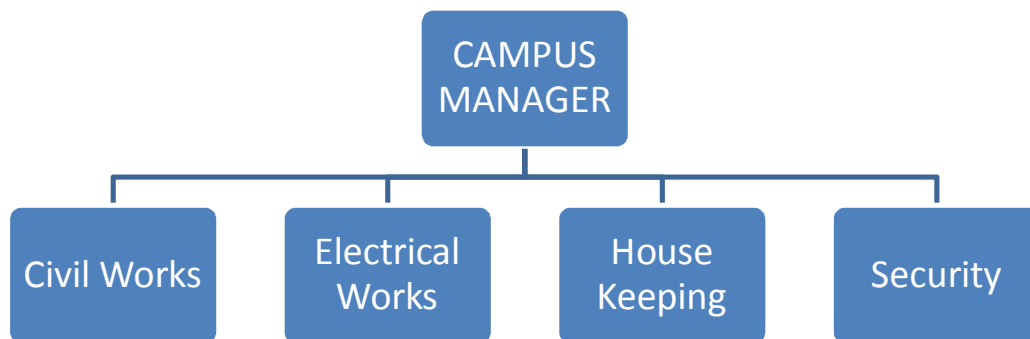
## 4.3.8 Provide details on the provision made in the annual budget for update, deployment and maintenance of the computers in the College?

Particulars		Years (Amount rupees)			
		2011-2012	2012-13	2013-14	2014-15
a.	Computer, printers,	75,00,000	75,00,000	8,00,000	15,00,000
b.	Consumable	4,00,000	10,00,000	4,11,997	6,56,564
c.	Internet	10,00,000	10,00,000	10,00,000	12,00,000
d.	Networking	2,00,000	5,00,000	3,00,000	3,00,000

## 4.4 Maintenance of Campus Facilities

**4.4.1** Does the College have an Estate Office / designated officer for overseeing maintenance of buildings, class-rooms and laboratories? If yes, mention a few campus specific initiatives undertaken to improve the physical ambience.

Yes,



- The overhead water tanks are cleaned regularly.
- All the water filters are being regularly cleaned and serviced.
- Gardens are maintained with good land scaping.

**4.4.2 Does the College appoint staff for maintenance and repair? If not, how are the infrastructure facilities, services and equipment maintained? Give details.**

**Yes**

- The institution has separate maintenance sections for maintaining buildings, equipments, plumbing, carpentry, electrical, computers, vehicles, house keeping, CCTV system, etc.,
- Instruments and equipments in the laboratories are maintained by the respective departments.
- Computers, printers and other peripherals' are generally maintained by the maintenance department.

Particulars		Years (Amount rupees)			
		2011-2012	2012-13	2013-14	2014-15
a.	Buildings	40,59,726	17,18,712	48,55,420	71,55,196
b.	Equipmen	3,41,181	4,81,538	4,11,997	6,56,564
c.	Computer	2,82,276	7,88,180	16,69,712	3,68,797
d.	Vehicles	15,68,447	32,76,067	10,51,817	18,41,890

**Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.**

- NCET has been recognized as the Centre of Innovative Science and Engineering Education by VGST, Department of IT, BT and Science & Technology, Government of Karnataka.
- The institution has received Rs. 30 lakhs grant for strengthening of laboratory equipments and carrying out the research activities.
- Faculty members are encouraged to use open source software.
- The infra structural facilities of the college are excellent. The departments are housed in individual blocks. The library has a spacious building of 2000 sq.m.
- The residential accommodation is provided for both boys and girls on campus.
- The college library remains open upto 10.00 pm and during examination up to midnight.

**Continuous improvement in Infrastructural facilities is a salient feature of the campus.**

- A new hoste block – 8 with seven floors is under construction
- Additional laboratory block for Mechanical Engineering department is coming up
- Second Sewage Treatment plant is under construction
- New infrastructural facility – third floor has been added in the Library block.
- One additional floor is under construction in Mechanical and Civil

blocks.



**Sewage water treatment plant Unit 1**



**Sewage water treatment plant Unit - 2  
(Under Construction)**



**Boys hostel block – 8 (Under construction)**



**Foundation work in progress for the additional Mechanical laboratory block**



**New Mess hall under construction**



**Night View of the Campus**

\*\*\*

## **CRITERION V:**

### **STUDENT SUPPORT AND PROGRESSION**

#### **5.1 Student Mentoring and Support**

5.1.1 Does the College have an independent system for student support and mentoring? If yes, what are its structural and functional characteristics?

Yes.

- Institute has an effective counseling system in which 15 to 20 students are assigned to a particular teacher who has to counsel a student in a systematic way.
- Counsellor maintains a progress report of each student. Progress report contains all personal, academic, curricular and other details of the student.
- A student who is assigned to a particular counselor in the first semester continues to receive counseling from the same counselor till the student completes the programme.
- Information about the student performance is sent to parents through SMS/by making phone calls/E mails.
- Institute regularly organizes Parents-Teachers Meet where parents can interact with counselors and course teachers about their ward's performance.
- Performance Evaluation of students in the examination/SEE is carried out and special Coaching classes are held for the benefit of weaker students.
- Students who are at the risk of drop out are given special attention and are advised to give maximum importance to critical subjects to prevent from being detained.
- Institution has tied up with Harmonix Global Foundation to organize special counseling sessions to slow learners, students with personal problems, students who frequently skip classes etc to put them right track.
- Institution has a placement cell which imparts placement related training to enable the students to mould their career.
- Students with psycho-social problems are given special counseling to overcome their difficulties.

5.1.2 What provisions exist for academic mentoring apart from class room work?

- Students who are at the risk of drop out are given special attention and are advised to give maximum importance to critical subjects to prevent from being detained.
- Parents of such students are called for discussion about their ward with the HOD, senior professors, concerned counselor and the principal.
- An effort is made to understand the difficulties of such students through expert counseling with the intention of putting such

students on the right track.

- Continuous counseling and parental care ensure that the students enrolled complete the course successfully.
- Special coaching classes are conducted for weak students.

### 5.1.3 Does the College provide personal enhancement and development schemes for students? If yes, describe techniques employed e.g., career counselling, soft skill development, etc.

Institute has an Entrepreneurship Development Cell (EDC) which carries out the following activities:

- “Mission Empowerment 10000 programme” sponsored by VTU, under which two batches of students are already trained. This training encourages young students to become an Entrepreneur.
- Institution organizes Short Term Programmes (STP) on development of entrepreneur skills. Expert speakers from various small scale industries are invited.
- Information related to small scale industries that can be taken up, procedure to secure financial support etc is also provided.
- The institute provides financial support to its alumni for establishing start-ups.

### 5.1.4 Does the College publish its updated prospectus and handbook annually? If yes, what are the activities / information included / provided to students through these documents? Is there a provision for online access?

YES,

#### 1. Prospectus:

Prospectus gives the complete details about the college like programmes offered, hostel facility for boys and girls, faculty details, library facility and other infrastructural details. Prospectus also highlights the achievements of the institution. Prospectus is made available to prospective students and their parents who wish to seek admission to NCET.

#### 2. Syllabus Book:

Syllabus book in print form containing about the course details, regulations, scheme of examinations and detailed syllabus. The syllabus is also available on the University and College website. For autonomous programmes handbook containing regulations and other information about the campus are given to students in addition to the syllabus book.

#### 3. Calendar of Events:

Calendar of events contains the date of reopening of the college, number of working days, last working day, holidays, days on which tests/CIE are conducted, Parent-Teacher meet, cultural and

sports activities, date on which examination begins.

#### 4. College Website:

The details given in the prospectus are also given through the college website [www.nagarjunaeducation.com/ncet](http://www.nagarjunaeducation.com/ncet). Further the web site contains complete information on the following:

- Department wise faculty details.
- Information about the laboratories of all departments.
- Details of hostel facility for boys and girls.
- Details of Placement and Training.
- Information about transport facility, cafeteria, sports and cultural activities.
- Information about seminars, conferences, workshops, technical talks by experts and other activities.
- Library and Information center with details of e-journals.
- Affiliation and Accreditation details of the institution.
- Details of Alumni Association.

The website is updated regularly.

#### Commitment and accountability

Prospectus is revised and published annually. Academic activities are carried out as per calendar of events. In case the academic activities are out of phase due to unforeseen circumstances like bandh, strike, natural calamities, unexpected declaration of holidays by the government etc the deviation is set right by working on Saturdays and Sundays.

#### 5.1.5 Specify the type and number of scholarships / freeships given to students (UG/PG/M.Phil/Ph.D./Diploma/others in tabular form) by the College Management during the last four years. Indicate whether the financial aid was available on time.

- The institution has a separate scholarship section to help and guide the students to apply and avail the different types of scholarships.
- Scholarships to tune of about Rs. 88 lakhs are received by our students every year.
- About 25% of the students receive freeships.
- 5% to 10% of the poor and meritorious students receive fee concession from the management.
- 5% of students who come under Super Numerary Quota (SNQ) receive completely free education.

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In majority of the cases the scholarship amount is directly transferred to the beneficiaries account. However in some cases it is disbursed through the college.

Sl No	Type of scholarship	2014-2015		2013-2014		2012-2013		2011-2012	
		Number of students	Amount in lakhs	Number of students	Amount in lakhs	Number of students	Amount in lakhs	Number of students	Amount in lakhs
1	Fee concession	296	88,24,380	193	72,63,731	149	63,52,571	127	56,61,371

### 5.1.6 What percentage of students receives financial assistance from state government, central government and other national agencies? (e.g., Kishore Vaigyanik Protsahan Yojana (KVPY), SN Bose Fellow, etc.)

- About 45% of the students receive financial assistance from state government, central government and other national agencies.
- Scholarships to tune of about 2.7 crores are received by our students every year.
- Number of students receiving such scholarships is about 1100 annually.
- The various scholarships that are available to the students are:
  - SC/ST scholarship.
  - OBC scholarship of Karnataka.
  - Jindal scholarship.
  - Scholarship given by Municipal Corporation and other local bodies.
  - Scholarships awarded by other state governments.
  - Scholarships given by Karnataka Minorities Corporation.
  - Scholarships to the children of Defense person.
  - KSTWF scholarship to children of teachers.

Sl No.	Type of scholarship	2014-2015		2013-2014		2012-2013		2011-2012	
		Number of students	Amount in lakhs	Number of students	Amount in lakhs	Number of students	Amount in lakhs	Number of students	Amount in lakhs
1	SC/ST	240	91,22,280	169	61,46,130	43	14,63,329	80	28,22,160
2	OBC	779	1,43,27,390	233	37,66,954	135	29,56,010	250	36,22,802

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3	Minorities	54	20,47,550	28	10,62,070	29	10,42,980	23	6,37,530
4	Defense, Teachers and other type	54	2,27,450	20	2,27,050	11	2,07,270	29	6,14,650
5	Other states	23	11,53,940	53	33,60,490	26	23,08,480	2	2,19,560
<b>Total</b>		<b>1150</b>	<b>2,68,78,610</b>	<b>503</b>	<b>1,45,62,694</b>	<b>244</b>	<b>79,78,069</b>	<b>384</b>	<b>7916702</b>

### 5.1.7 Does the College have an International Student Cell to cater to the needs of foreign students? If so, what measures have been taken to attract foreign students?

Yes,

- NRI hostel facility is available to foreign students.
- Foreign students are given assistance in their visa processing, police verification, residential permit, etc.,
- Special counseling facilities are available to NRI students.
- Special food facility is provided for NRI students.
- College supports foreign students to celebrate festivals of their countries.
- Sports and Cultural clubs are coordinated by foreign students.

### 5.1.8 What types of support services are available for

#### Overseas students

- NRI hostel facility is available to overseas students and students from other countries.
- Overseas students are given assistance in their visa processing, police verification, residential permit, etc.,
- Special counseling facilities are available to NRI students.

#### Physically challenged / differently abled students

- Wheel chairs are provided to improve the mobility for physically handicapped students.
- Special facilities are provided to the physically disabled students to write internal test and final examinations.
- Physically handicapped candidates writing the examination can take assistance from another person who is normally called as amanuensis. An amanuensis can be appointed by the Registrar (E)/CoE to the candidate who is really disabled to write his/her examination with his/her own hand.

#### SC/ST, OBC and economically weaker sections

- SC/ST book bank scheme is available in the library and students from SC/ST, OBC can avail extra text books under this scheme.
- Institution also provides assistance to SC/ST, OBC and economically weaker sections students to secure various social benefits such as scholarships, free-ships, etc.
- The institution assists the SC/ST students to get free Pendrive, Calculators etc., from the State Government.

### Students to participate in various competitions/ conferences in India and abroad

- Institute provides financial support to the students to participate in Competitions at national and international level.
- Institute conducts Special Internal Test and special classes for those students who participate in the competitions.
- Facilities are provided in the campus to practice cultural/sports events prior to their participation in the competitions.
- Students who secure prizes in sports and cultural competitions at national and international level are given cash award/additional prizes to recognize their achievement.

### Health centre, health insurance etc.

- Institute provides Medical Assistance round the clock.
- A doctor visits the campus on every alternate day and as the need arises.
- Institute has an MOU with Akash Hospital, Devanhalli.
- 24X7 transport facility is available to attend the medical emergency cases.
- All students and staff are covered under the Accidental Group insurance to the tune of 10 lakhs per student.
- First aid facility is available in all laboratories, college buses, hostel blocks, sports section etc.
- Students are covered under Group Insurance Scheme for accidents.

### Skill development (spoken English, computer literacy, etc.,)

#### Personality development courses:

NCET offers courses related to aptitude, logical reasoning, communication, group discussion and HR skills which help the students in their overall personality development.

#### Mission VTU Empower 10000 Programme:

To increase the employability of graduated students the university conducts this certification program. Our institute periodically organizes this programme.

Courses on advanced concepts such as Python Programming, Robotics and

embedded systems, micro controllers, ethical hacking, Refrigeration and Air Conditioning, CAD Courses, Cype software etc are being conducted and certificates are issued.

### Performance enhancement for slow learners / students who are at risk of failure and dropouts

- Slow learners are permitted to complete the programme in an extended time frame.
- Make up examinations and supplementary examination facility is available to slow learners. In addition, coaching classes are conducted for about six weeks prior to supplementary examination.
- Slow learners can gradually complete the courses by taking extra semesters and are permitted to complete the programme within eight years.
- Students who are at the risk of drop out are given special attention and are advised to give maximum importance to critical subjects to prevent from being detained.
- Parents of such students are called for discussion about their ward with the HOD, senior professors, concerned counselor and the principal.
- An effort is made to understand the difficulties of such students through expert counseling with the intention of putting such students on the right track.
- Continuous counseling and parental care ensure that the students enrolled complete the course successfully.
- Special coaching classes are conducted for weak students.
- The concept of peer tutoring is implemented for the benefit of slow learners.

### Exposure of students to other institutions of higher learning/ corporates/business houses, etc.

- Our institution has been recognized as the Nodal Center for Virtual Lab facilities sponsored by MHRD, GOI and supported by all IITs and IISc. This facility is being used by staff and students.
- The institute has EDUSAT facility sponsored by VTU and is supported by ISRO.
- Ethics and Value based classes are conducted by Harmonix Global Foundation, an off shoot of ISKCON.
- Students are also allowed to undergo internship in industries.
  - Institute has MOUs with leading industries students are permitted to undertake projects in these industries.
  - Students are permitted to make industrial visits periodically.

### Publication of student magazines

- Institute has the official facebook page.
- Institute publishes magazine every year, under the title “Chaitanya”. The magazine generally contains articles related to technology, literature, sports and cultural activities. In addition magazine contains reports on all

departments, special achievements etc.

- Magazine serves as outlet to bring out hidden talents in the students.
- Departments are encouraged to publish newsletters periodically.

**5.1.9 Does the College provide guidance / coaching classes for Civil Services, Defense Services, NET/SLET and any other competitive examinations? If yes, what is the outcome?**

- College provides assistance to receive coaching for competitive exams such as IAS, IPS, IES, Gate, CAT, MAT, GRE etc.
- Mr. Megha Nidhi, an alumnus, has passed IAS examination securing 63<sup>rd</sup> rank at all India level and is undergoing IAS training at present.

**5.1.10 Mention the policies of the College for enhancing student participation in sports and extracurricular activities through strategies such as**

**Additional academic support, flexibility in examinations**

- Special coaching for sports/cultural events is conducted to the students who wish to participate in different sports and cultural activities.
- Additional classes are conducted to those students who are missing the regular classes because of their participation in various activities.
- If a student misses any Internal Test/CIE because of his/her participation in the activities, he/she is provided with an additional internal test/CIE.

**Special dietary requirements, sports uniform and materials**

- All types of sports materials for cricket, basket ball, volley ball, table tennis, chess, carom etc are made available.
- Sports uniform is provided to all the students who represent our college at Inter collegiate level, VTU level, state level and national level.
- Students receive financial support from the college to participate in various competitions.
- Nutritious food is made available to the students for encouraging them to participate in sports and games.
- Students who excel at university level / state level sports meets are honoured and awarded cash prize.
- Inter departmental competitions covering all types of games are conducted. Winners and runners are awarded medals and certificates.

**5.1.11 Does the College have an institutionalized mechanism for placement of its students? What services are provided to help students identify job opportunities, prepare themselves for interview, and develop entrepreneurship skills?**

**YES,**

- The institution has a training and placement cell which is headed by a placement officer.
- Placement cell organizes regular training programmes to prepare the students to face the written test and interview.

- Training is oriented in such a way that it develops soft skill, technical skill and personal abilities in a student.
- The placement cell identifies the companies to be invited to the campus recruitment.
- Generally students of Mechanical Engineering, Civil Engineering and Electronics and Communication Engineering are given an opportunity to get placed in core companies. However, along with CSE and ISE students, ECE, Civil and Mechanical students are also permitted to participate in the recruitment process of software companies subject to the policies of the individual companies.

5.1.12 Give the number of students selected during campus interviews by different employers (list the employers and the number of companies who visited the campus annually for the last four years).

**Details of various companies which have visited the campus and branch wise recruitment of students are given below:**

Sl No.	Name of the company	Branch / Number of students placed			
		2014-2015	2013-2014	2012-2013	2011-2012
	Sand Cube Analytics	EC -10 CS - 7 ME- 3 CV- 5	EC- 10 CS - 11 IS - 6		
	100 Bricks	CV - 5			
	Sudarshan	CV - 15	CV- 5		
	Infosys	EC - 1 CS - 1 IS - 1	EC - 3 CS - 5 IS - 2		CS-10 BT-6 IS-2 EC-19 ME-4
	Microland	EC - 2 CS - 3			
	IBM	EC - 2 CS - 2 ME - 1	CS - 5	EC - 2 CS - 1	
	Sigma Solutions	EC - 1 CS - 2			
	Peol Solutions	CS - 2			
	Good Through Software	CS - 2 IS - 2			

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	Westline Shipping	EC - 6 ME - 4			
	Eldaas Technology	EC - 5 (Hold)			
	Accurate	ME - 20			
	ETA Engineering	ME - 2			
	Brakes down	ME - 24			
	IBM-GPS		EC- 2 IS - 2		
	Alufit			CV-5	
	DCM-Shriram			CV-5	CS-1 ME-2
	KNK Next Gen			CV-2	
	Exhilant			CS-1 EC-2 IS-2	CS-9 EC-4
	Mphasis			CS-2 EC-4 IS-3	
	Josaiah Tech			CS-17 EC-27 ME-5 IS-7	
	Jobs Mill for Google			CS-6 EC-1 IS-3	
	Sasken			CS-1 EC-1	
	UTBS			CS-2 EC-3	
	Wenger and Watson			CS-2 IS-1 ME-1	
	Nurture Software			CS-1	
	Spectrum Telesolutions			EC-21	
	Pheonix maritime			IS-3 ME-3	
	MOOG			ME-1	
	Solution Infini			ME-1	
	Textron			ME-1	
	Cordys				CS-1

### 5.1.13 Does the College have a registered Alumni association? If yes, what are its activities and contributions to the development of the College?

**Yes,**

The institution has alumni association, the salient features of which are given below:

#### **OBJECTIVES of the alumni association:**

- To serve as a forum to promote and foster relationship among the alumni, the present students, the staff and the management of NCET.
- To help the Alma mater in its effort to achieve its vision.
- To arrange expert lectures by eminent alumni & other prominent industrialists for the benefit of students.
- To actively involve the alumni in arranging campus recruitment programs at NCET.
- To institute scholarships, prizes/medals etc, for the deserving students of NCET.
- To maintain continuous interaction between the past and present students by publishing a newsletter, holding periodical Alumni day celebration or by any other activity as decided by the association.
- To contribute towards improvement of department library, R&D and entrepreneurship with the help of alumni.
- To mould the career of present students with the assistance of alumni.

#### **ORGANIZATION & MANAGEMENT OF ALUMNI ASSOCIATION**

The alumni associations are functioning in every department. Alumni of the institution are actively involved in the following.

- Prominent alumni are members of Board of Studies and actively involved in curriculum development.
- Alumni assist the placement cell of the college in training and placing of the students.
- Alumni actively involve in organizing alumni meets.
- Alumni are invited to deliver expert lectures and impart technical training.
- Opinion of alumni is taken in developmental activities of the institution such as equipment procurement, software development and other infrastructural development.

**5.1.14 Does the College have a student grievance redressal cell? Give details of the nature of grievances reported and how they were redressed.**

**Yes,**

The Institution has “Student Grievance Redressal Cell” to resolve the grievances reported by the students.

**Grievance reported by the students during the last four years and remedial measures taken are given below:**

- Grievances related to evaluation of internal test, assignments, quiz etc are referred to a departmental committee which looks into these grievances and provides appropriate remedial measures. During last four years about 20 grievances of the above said type had been reported and resolved.
- Whenever students complain about teaching, feedback is taken. The details of feedback and the remarks of the students are sent to respective HOD and concerned teachers for corrective measures. During last four years about 10 grievances of the above said type had been reported and resolved.
- Complaints related to quality of food items in both college canteen and hostel mess are referred to hostel and canteen monitoring committees to get the grievances resolved.
- Complaints related to college transport facility are solved by the principal in consultation with transport manager. Every year four to five such grievances are resolved.
- Grievances in boys and ladies hostel such as water problem, burnt out bulbs, non availability of hot water, internet, TV etc are referred to the campus manager to rectify the problems immediately.
- If the students are not happy with their university examination results, they are counseled and advised to apply for photo copy and revaluation. In a few cases students have secured much higher marks after revaluation results are announced.

**Grievance redressal cell**

Sl. No	Name	Designation/ Department	
1.	Dr. S. G. Gopala Krishna	Principal	Chairman
2.	Dr. N. G. S. Udupa	Vice Principal & Head–ME (PG)	Members
3.	Dr. G. S. Jayadeva	Prof & Head – EC	
4.	Dr. Shantha Kumar Patil	Prof & Head – CS	
5.	Prof. B Roopashri Tantri	Prof & Head – IS	
6.	Dr. N. Kapilan	Prof & Head – ME	

7.	Dr. T.M. Mohan Kumar	Prof & Head – CV - UG	
8.	Prof. V Nagendra	Prof – CV	
9.	Dr. N. Sandhya	Prof & Head – MBA	
10.	Mr. Sarvesha. M. V	HOD – Maths	
11.	Dr. Manjunatha K	HOD – CHE	
12.	Mrs. Sharada. T	HOD – PHY	
13.	Dr. Rajendra S	Prof & Head – CV – P G	Member Secretary

**5.1.15 Does the College have a cell and mechanism to resolve issues of sexual harassment?**

- There is a women's welfare committee set up to address harassment to girl students and women employees. This committee is established as per the guidelines of Government of Karnataka and VTU.

**Women Welfare Committee**

<b>Sl. No.</b>	<b>Name &amp; Authority of the institution</b>	<b>Designation in the committee</b>
1	Dr. S G Gopala Krishna, Principal	Chairman
2	Dr. N Sandhya, HOD, MBA	Member Secretary
3	Mrs. Sharada, HOD, Physics	Member
4.	Mrs. B Roopashri Tantri, HOD, ISE	Member
5.	Dr. Premjyoti Patil, Prof., CSE	Member
6.	Mrs. Poornima U K, A.P., MBA	Member
7.	Mrs. Bhavya, A.P., ECE	Member
8.	Mrs. Megha Kulkarni, A.P., CE	Member
9.	Warden ladies Hostel	Member
10.	Dr. N G S Udupa, Vice Pricipal	Advisor

**Responsibilities of the committee:**

- To take proactive measures to prevent occurrence of sexual harassment in the institution.
- To receive and act upon any complaint of sexual harassment by any category of staff, students or outsiders.
- To address women staff distressed with acute problems including family, relationship problems etc., taking professional help if need be, from psychologists / psycho-analyst / psychiatrists / professional counselors, so that they can regain their confidence to handle life courageously and become assets rather than liability to the society.
- To ensure women friendly work environment and atmosphere in the institution by providing adequate space like women's rest room etc., to handle women specific issues.
- To enquire on complaints against male staff by female staff, and take corrective action.
  - The committee meets periodically to review cases if any. CCTV Cameras are installed in the entire campus to ensure the safety of the girl students. Institution has good transport facility to make the commuting safe.
  - Two girls hostel blocks are available in the campus which can accommodate about 200 students. The hostel blocks are provided with round the clock security with two residential wardens.

**5.1.16 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?**

Yes,

- The anti ragging committee is constituted in the beginning of every academic year. This committee monitors and prevents the ragging incidents. Committee members also visit the hostels during night time randomly to check whether there are any incidents of ragging.

**Anti Ragging Committee**

<b>Sl. No</b>	<b>Name</b>	<b>Designation</b>
1.	Dr. T M Mohan Kumar, HOD –CV	Chairman
2.	Dr.N. G. S. Udupa, Vice Principal & HOD – ME(PG)	Member
3.	Dr. P. Harisha, Prof. & Dean	Member
4.	Dr. N. Sandhya, HOD, MBA	Member

5.	Mr. Janardhan Bhat, Physical Director	Member
6.	Mr. Sanath Kumar K.R., Asst. Prof, CV	Member
7.	Major. C. U. Monnappa, Campus Administrator	Member
8.	Prof. M.V. Sarvesh, HOD, Maths	Member
9.	Wardens, Boys Hostel	Member
10.	Mrs. Roopa, Warden, Girls Hostel	Member
11.	Police Inspector, Vijayapura	Member
12.	Police Inspector, Chickaballapur	Member
13.	Dr. S.G. Gopala Krishna, Principal	Convenor

- CCTV Cameras are installed in the entire campus to ensure that no such incidents take place.
- Six day squads, one holiday squad and one women squad have been formed to monitor the campus to ensure ragging free environment.
- Boards, posters are displayed at different locations in the campus to create awareness amongst students about the consequences of ragging.

The institution has initiated strict measures against ragging and hence no incident of ragging has been reported during last four years. NCET campus is ragging free.

### 5.1.17 How does the College elicit the cooperation from all stakeholders to ensure overall development of the students considering the curricular and co - curricular activities, research, community orientation, etc.?

The institute has a systematic feedback system to obtain the feedback from students, parents, alumni and employers.

#### **Student Feedback:**

Online feedback is obtained twice in a semester from students. Feedback mainly concentrates on academic progress of the curriculum.

#### **Parents Feedback:**

Periodically parents meeting are arranged and during this feedback are taken from the parents regarding the curriculum activities.

### **Alumni Feedback:**

Feedback is taken from the alumni who are working in industry and moved to higher studies regarding the curriculum during the Alumni Meet.

### **Employers/ Industries feedback:**

Representatives of various industries give extremely useful feedback regarding the employability of the students and also their expectation from the students during the placement.

#### **5.1.18 What special schemes/mechanisms are in place to motivate students for participation in extracurricular activities such as sports, cultural events, etc?**

- **Additional academic support, flexibility in examinations:**
  - Special coaching for sports/cultural events is conducted to the students who wish to participate in different sports and cultural activities.
  - Additional classes are conducted to those students who are missing the regular classes because of their participation in various activities.
  - If a student misses any Internal Test/CIE because of his/her participation in the activities, he/she is provided with an additional internal test/CIE.
- **Special dietary requirements, sports uniform and materials:**
  - All types of sports materials for cricket, basket ball, volley ball, table tennis, chess, carom etc are made available.
  - Sports uniform is provided to all the students who represent our college at Inter collegiate level, VTU level, state level and national level.
  - Students receive financial support from the college to participate in various competitions.
  - Nutritious food is made available to the students for encouraging them to participate in sports and games.
  - Students who excel at university level / state level sports meets are honored and awarded cash prize.
  - Inter departmental competitions covering all types of games are conducted. Winners and runners are awarded medals and certificates.

#### **5.1.19 How does the College ensure participation of women in 'intra' and 'inter' institutional sports competitions and cultural activities? Provides details of sports and cultural activities in which such efforts were made?**

- The college has women sports teams.
- The college throw ball team participated in Zonal throw ball, shuttle badminton, table tennis, chess tournaments and athletics competition organized by VTU.
- The facilities like gymnasium, basket ball court, throw ball court, shuttle badminton court and indoor sports facilities like TT, Chess, Carom, etc are provided in the ladies hostel.

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- During the college sports day, 100m, 200m, 400m, shot-put, discus throw, throw ball, volleyball, carrom, chess and table tennis competitions are organized.
- The institution provides facility to participate in sports activities in various colleges.
- The institution encourages the women teams to participate in intra and inter dance and music competitions.
- The teams are also encouraged to participate in various activities held during sports day and cultural day.

### 5.2 Student Progression

5.2.1 Provide details of programme-wise success rate of the College for the last four years. How does the College compare itself with the performance of other autonomous Colleges / universities (if available)

Results of various programmes for last four years are given in the following table:

Programme : B.E.	Result in %			
	2014-15	2013-14	2012-13	2011-12
Computer Science and Engineering	95	89	96	99
Information Science and Engineering	100	94	100	98
Civil Engineering	96	98	100	100
Electronics and Communication Engg	90	96	89	92
Mechanical Engineering	87	98	99	95
<b>Programme : M.Tech</b>				
Machine Design	100	93	100	100
VLSI Design and Embedded Systems	86	100	100	100
Structural Engineering	100	100	100	94
Construction Technology	100	100	-	-
Computer Science and Engineering	94	-	-	-
<b>Programme : MBA</b>				
MBA	81	88	74	77

5.2.2 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlight the observed trends.

Student progression	%
UG to PG	5%
PG to M.Phil.	NA
PG to Ph.D.	10%
Employed • Campus selection  • Other than campus recruitment	80% of the eligible students are placed  All the remaining students

5.2.3 What is the Programme-wise completion rate/dropout rate within the time span as stipulated by the College/University?

Generally, the programme-wise dropout rate is around 1 - 2% at the Institute level.

5.2.4 What is the number and percentage of students who appeared/ qualified in examinations like UGC-CSIR-NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central / State services, Defense, Civil Services, etc.

The students are assisted to pursue higher level of education by following means:

- Institution assists the students in procuring prospectus of reputed universities in US, UK, Canada, Australia, European countries etc. and encourages them to pursue higher studies.
- College provides assistance to receive coaching for competitive exams such as IAS, IPS, IES, Gate, CAT, MAT, GRE etc. and encourages its students to reputed institutions like IITs, IIMs etc.
- Mr. Megha Nidhi, who was a student of NCET, has passed IAS examination securing 63<sup>rd</sup> rank at all India level and he is undergoing IAS training at present.

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The details in the last four years are:

Sl No	Department	Number of students
1	Civil Engineering	--
2	MBA	1
3	Electronics & Communication Engineering	8
4	Mechanical Engineering	-
5	Computer Science & Engineering	8
6	Information Science & Engineering	1

5.2.5 Provide details regarding the number of Ph.D/D.Sc./D.Litt. theses submitted, accepted, resubmitted and rejected in the last four years.

Details of faculty involved in active research are given below:

Sl No	Department	No of Ph. D.	No of thesis submitted/accepted/resubmitted/ rejected
1	Civil Engineering	2	
2	MBA	1	
3	Electronics & Communication Engineering		2
4	Mechanical Engineering	1	
5	Physics	-	
	Computer Science & Engineering	2	
6	Chemistry	1	
7	Information Science & Engineering	1	
8	Mathematics	-	

### 5.3 Student Participation and Activities

5.3.1 List the range of sports and games, cultural and extracurricular activities available to students. Provide details of participation and program calendar.

The various outdoor and indoor games available to the students

are as below:

### **Outdoor games:**

- Two Basket ball courts (one in main play ground another in ladies hostel).
- Cricket and Football.
- Throw ball, Volley ball, Kabbaddi, Badminton and Kho-Kho courts.
- Institution has 400 m track with 8 lanes standard track for athletics.

### **Indoor games:**

- Multi station Gym.
- Table Tennis.
- Chess and Carrom.

### **Achievements:**

- Mr.Ranjan and Mr.Abin K.P. of Mechanical department got selected for VTU football team.
- Mr.Ranjan represented South zone Inter university football tournament held at Thiruvanthapuram, Kerala.
- Mr.Chandra Shekar from Mechanical Department won silver Medal in state level best Physique competition two times.
- College Kho Kho team had shown its best performance in VTU Intercollegiate tournament and got selected for Inter Zone tournament.
- Ms.Krushika Poonam of ECE department had got best player award in Chess at Inter Zone tournament organized by VTU.
- Institute has established Chess Club in 2014.

### **Events organized:**

- Every year “Annual Sports Day” is organized for students and faculty Members.
- Organized VTU Football tournament for Men Zonal and Inter Zonal tournament in 2011-2012.
- Organized VTU Table Tennis Men and Women Zonal and Inter Zonal tournament in 2012-2013.
- Organized VTU Football for Men Zonal and Inter Zonal tournament in 2013 - 2014.

**The various cultural activities conducted/organized in the college are as below:**

- An Inter collegiate cultural fest “IKYA” is celebrated to showcase the cultural talent of the students. This fest attracts participants from more than 20 institutions.
- Institute has Cultural Club, which encourages the active participation of the students in cultural events.
- Students are permitted to take part in the cultural competitions organized by the university or other colleges.
- Institution also has various talent development clubs such as music club, photography club etc.
- Institution organizes inter class cultural competitions at regular intervals.
- Cultural competitions such as Rangoli, Mehendi, Ekkebana, Face painting, DJ, Street dance, Fashion show, Collage etc. are conducted and prizes are awarded to winners and runners.
- Institution also organizes Ethnic day, Rainbow week, Onam and Ganesh utsav celebration.
- Institution has made arrangement to screen good quality movies, documentaries related to arts, fiction, science & technology etc regularly on Sundays and holidays for the benefit of hostel inmates.

### Glimpse of IKYA



A view of the audience

### Achievements:

- Students of VIII Sem EC are selected for E Yantra project sponsored by MHRD, conducted by IIT, Bombay
- Bhargav Sridhar has won Yahoo Digital Innovation Jockey 2014 award, Accenture” Innovation Jockeys 2014”, powered by Yahoo, for the Innovation, BRICK IT - a Timeline Repository of Text on the Internet’.
- Bhargav Sridhar Featured among 15 Innovators in an article titled “India @ 68: These Indians will make you proud”, an Independence Day special by Yahoo India (2014).
- Ms. Chaitra (1NC11BT003) and Ms. Keerthana R (1NC11BT005) have won 2nd prize in Intercollegiate Climate Change Quiz 2013 organized by Center for Atmospheric and Ocean Sciences, Divecha Centre for

climate change on 19th September, 2013 at J.N Tata Auditorium, IISc, Bangalore.

- Ms. Malvika Venkat, a student from Department of Civil Engineering, has been selected as a “Vijaya Karnataka Green Ambassador” for Chickaballapur district.
- Mr. Megha Nidhi Dahal (1NC05IS021) of IS Department has cleared UPSC Civil Service examinations in 63rd Rank and Sikkim Public Service Commission Examination with First Rank. He is the only candidate who has cleared UPSC from the state of Sikkim in the last 40 years.

**The students are encouraged to participate in extracurricular activities through the following clubs:**

- Departmental forums
- Photographic club
- Music club
- Chess club
- Cultural club
- Public speaking club
- Robotics club
- NSS
- ISTE Students' Chapter
- ISHRAE Students' chapter
- CSI Student Chapter

**5.3.2 Provide details of the previous four years regarding the achievements of students in co-curricular, extracurricular activities and cultural activities at different levels: University / State / Zonal / National / International, etc.**

**Achievements in sports activities:**

- Mr.Ranjan.M.P and Mr.Abin K.P. of Mechanical department got selected for VTU football team.
- Mr.Ranjan represented South zone Inter university football tournament held at Thiruvanthapuram, Kerala.
- Mr.Chandra Shekar from Mechanical Department won silver Medal in state level Best Physique.
- College Kho Kho team had shown their best performance in VTU Intercollegiate tournament and got selected for Inter Zone tournament.
- Ms.Krushika Poonam of ECE departmet had got best player award in Chess at Inter Zone tournament organized by VTU.
- Institute has established Chess Club in 2014.

5.3.3 How often does the College collect feedback from students for improving the support services? How is the feedback used?

The student feedback on institution performance is taken by the students on various issues such as,

- Quality and quantity of food in college canteen.
- College transport system.
- Library facilities.
- Campus recruitment facility.
- Laboratory and computers facilities.
- Issues related to drinking water, ladies rest room and toilets.
- Issues related to the departments and HODs.

A separate feedback is taken from inmates of both boys and girls hostels about the quality of food, cleanliness, security, drinking water and hot water, lighting, internet facility etc. Based on these feedbacks, corrective measures were initiated.

5.3.4 Does the College have a mechanism to seek and use data and feedback from its graduates and employers, to improve the growth and development of the College?

- Institute always respect the feedback from its graduates and employers to improve the performance and quality of the institutional provisions.
- Institute has defined mechanism to obtain the feedback from the students, alumni and employers.
- This feedback helps in attaining the institutional objectives.

**Some of the feedback mechanisms are:**

- Feedback is taken from passed out students during alumni meet.
- Feedback from old students, employed in various companies is taken through an online questionnaire.
- Feedback from recruitment HR team and employers is taken to meet the expectations of the industry.

These feedbacks are analyzed and measures are initiated to improve the performance and quality of the institutional provisions.

5.3.5 How does the College involve and encourage students to publish materials like catalogues, wall magazines, College magazine, and other material? List the major publications/ materials brought out by the students during the previous academic session.

- Institute has an official facebook page.
- Institute publishes Magazine every year, in which students can publish their technical or general articles.
- Department publish newsletters periodically indicating the

- departmental achievements and activities.
- Competitions are conducted to design the cover page of magazine and prizes are awarded to the selected design.
  - Programme schedules, invitation cards, brochures etc. of various college sports and cultural activities are designed by the students.
  - Students actively participate in the design on brochures of seminars, workshops, technical talks etc.
  - Students are encouraged to participate in the preparation of proceedings of the conferences organized by different departments of the institution.
  - Brochures, programme schedules, invitation cards and course material of short term programmes are prepared by the students of respective departments in consultation with the faculty members.
  - The institution has made provision for wall magazine which are maintained by the students. This measure brings out the hidden talent in the students.

### 5.3.6 Does the College have a Student Council or any similar body? Give details on its constitution, major activities and funding.

Yes,

- The institution has different committees for various activities such as indoor and outdoor games, cultural activities, NSS, departmental forums, anti-ragging squads, placement cell etc. In all these committees student members are involved.
- In addition students are managing very well on their own, the following clubs:
  - Robotic club
  - Photographic club
  - Music club
  - Chess club
  - Cultural club
  - ISTE Students' Chapter
  - ISHRAE Students' chapter
  - CSI Student Chapter
- The institution liberally provides financial assistance to all above said student activities.

### 5.3.7 Give details of various academic and administrative bodies that have student representatives on them. Provide details of their activities.

Following are the academic and administrative bodies that have student representation on them.

- Anti Ragging Committee
- College Discipline Committee

- Women Welfare Committee
- Cultural Committee
- Sports Committee
- Inter Collegiate Cultural Fest – IKYA Organizing Committee
- **Department Student Forum:** The departmental forums conduct activities such as organizing freshers' day, farewell party for final year students, Invited talks, Technical talks, Industrial visits, conferences, workshops, seminars, site visits etc. Various competitions are also held under the banner of students' forum. Students are also deputed to participate in international conferences at IITs.
- **Robotic Club:** Awareness training programmes are organized by this club.
- **ISTE Students' Chapter**
- **ISHRAE Students' Chapter:** The department of Mechanical Engineering has this chapter, under which, technical talks and conferences are held.
- **CSI Students' Chapter:** Conferences, Invited talks are held by this chapter.
- **Music, chess and photography club:** Students are also involved in organizing chess, music and photography competitions under these clubs. The photography club is also actively involved in taking photographs of various events held in college. The college also deputed students for attending workshops on photography through this club.
- **Studsat club:** Students do outside projects under this club. Currently, students are doing a project in association with ISRO.
- The college also has student members in anti-ragging committee and cultural committee.

**Any additional information regarding Student Support and Progression, which the institution would like to include.**

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## CRITERION VI:

### GOVERNANCE, LEADERSHIP AND MANAGEMENT

#### 6.1 Institutional Vision and Leadership

##### 6.1.1 State the vision and mission of the College.

**Vision:**

Leadership and Excellence in education.

**Mission:**

To fulfill the vision by imparting total quality education replete with the philosophy of blending human values and academic professionalism.

##### 6.1.2 Does the mission statement define the College's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, College's traditions and value orientations, vision for the future, etc.?

Yes.

- The institution provides educational services in Engineering and Technology at graduate and post graduate level, appropriate to the National and International needs.
- It has established collaborative relationship with industrial organizations for rendering our students industry ready and enhances their placement opportunities.
- The institution moulds our students as citizens with moral, ethical and social values.
- It has taken initiatives to start new programmes in the emerging areas.
- It has an environment friendly campus with residential facility to staff and students.
- It encourages the Staff and students to participate in the sports and cultural activities.
- It encourages staff and students to participate/organize seminars, workshops, conferences and FDPs.
- It creates an academic environment for staff and students to publish technical papers and involve in R&D activities.
- The institution provides value added programs like personality development, life skill, etc to the students.

##### 6.1.3 How is the leadership involved in

Ensuring the organization's management system development, implementation and continuous improvement

- Governing Body of the college meets periodically, in this meeting Principal communicates and disuses with management about the

important issues related to the institution.

➤ Representatives from top management namely Chairman, CEO, Directors visit the institution regularly to get an appraisal about:

- Students' admission status.
- The calendar of events.
- Syllabus coverage.
- Performance of students in test/CIE.
- Attendance status of students.
- Performance evaluation of teachers through student's feedback.
- Final examination results and its analysis.
- Sports and cultural activities to be organized.
- Requirements of various departments related to infrastructural facility, laboratory equipment, man power requirement with estimated costs.
- Issues related to increments and promotions of teaching and non-teaching staff.
- Grievances of students and staff if any.
- Discipline related issues in the campus.

### Interaction with stakeholders

- Students' feedback is taken on every course after each test/CIE to evaluate course performance. The feedback and the remarks of the students are sent to respective HOD and concerned teachers for corrective measures.
- Alumni meet is conducted periodically and feedback from alumni is taken for the overall development of the institution.
- Feedback from recruitment HR team and employers is taken to meet the expectations of the industry.
- Parent Teachers Meeting is conducted twice in a semester and parents are informed about their ward's performance. Feedback is taken from parents to improve the quality of teaching learning process and achieve the objective.

### Reinforcing culture of excellence

Institution initiates measures to achieve excellence in Quality Education continuously through monitoring the academic activities, faculty improvement, student satisfaction, extracurricular activities, research and development and collaboration with industry.

### Identifying needs and championing organizational development (OD)?

The institution aims at continuous quality improvement and at imparting value based education to the students to achieve leadership and excellence in technical education.

The structure of the organization encompasses the learning environment.

Introduced virtual laboratory and Math lab concepts in engineering. Staff and students are involved in various committees such as sports, cultural, discipline etc to inculcate team spirit, organizing abilities and leadership qualities. Workshops, Technical talks, conferences, FDPs are conducted to enhance technical enrichment.

**6.1.3 Were any of the senior leadership positions of the College vacant for more than a year? If so, indicate the reasons.**

No. Senior leader positions were not vacant for more than a year.

**6.1.4 Does the College ensure that all positions in its various statutory bodies are filled and conduct of meetings at the stipulated intervals?**

Yes. The college ensures that all statutory bodies are filled and conduct of meetings at the stipulated intervals

**6.1.5 Does the College promote a culture of participative management? If yes, indicate the levels of participative management.**

YES,

- At the top management level, the Governing Body of the college has two representatives from the faculty in addition to the principal.
- Academic council of the institution includes HODs of all departments and four senior professors in addition to principal and member-secretary.
- Co-ordinator/chairman/conveners of various committees such as time table, test/CIE, anti-ragging, discipline monitoring, women's welfare, grievance redressal, sports, cultural, magazine, NSS, institution-industry interaction, quality monitoring in canteen and mess, campus maintenance, counseling, are chosen from the level of HODs, senior professors and associate professors. Members of the above said committees are chosen from the staff and students.

**6.1.6 Give details of the academic and administrative leadership provided by the University to the College?**

The senior staff members are working as members / chairpersons of various academic bodies such as Executive council, Board of studies, Board of Examination and Local Enquiry Committee to inspect various affiliated colleges of VTU. Staff members are involved in paper setting, valuation and moderation works of university.

### 6.1.7 How does the College groom the leadership at various levels?

- Co-ordinator/chairman/conveners of various committees such as time table, test/CIE, anti-ragging, discipline monitoring, women's welfare, grievance redressal, sports, cultural, magazine, NSS, industry interaction, quality monitoring in canteen and mess, campus maintenance, counseling, are given full freedom to ensure that the committees function efficiently. This intern builds leadership qualities in team leaders.
- Faculty members are given full freedom to organize industrial visits, achieve institution/industry interaction, department forum activities, organizing seminars, conferences and Short Term Programmes etc. to ensure that the leadership qualities are developed.
- Faculty members are encouraged and given power to select their preferred area of research, write project reports/proposals to get funding from various funding agencies. Further in all R&D projects funded by outside agencies full freedom is given in the execution and implementation of the project. Such a step inculcates leadership qualities in the faculty.
- Top management recognizes any special achievements by the faculty and encourages them to proceed further.
- Talented students are made members of different committees such as anti-ragging, sports, cultural, NSS, departmental forum etc. to induce in them leadership qualities.
- Students are encouraged and financially supported to participate in sports and cultural events at university level, state level and national level.

### 6.1.8 Has the College evolved any strategy for knowledge management? If yes, give details.

Yes.

#### • Teaching & Learning:

- Faculty members are encouraged to upload their course material on the learning management portal.
- Peer tutoring mechanism among students has been encouraged.
- Moodle based learning management system with the concept of discussion forum is introduced.
- Video Lecture of laboratory courses has been prepared to enhance the learning process.
- Faculty and students are encouraged to use the Virtual lab facility.
- NCET provides LCD Projectors and other multimedia facilities to deliver the curriculum effectively.
- Institute provides variety of text books, manuals, E learning materials like E-journals and digital library facility to faculty for the effective teaching.
- 45 MBPS Wi-Fi internet facilities are provided throughout the campus for easy accessing of electronic materials.

- Faculty members are encouraged to participate in various faculty development programs, workshops, seminars, conferences, etc to enhance their knowledge.
- Institute encourages faculty members to pursue higher studies.
- Faculty members are trained with Mission 10X, a quality improvement program by Wipro which made our faculty members to develop innovative and creative learning modules.
- Interaction with R&D centers and industries helps to improve faculty practical knowledge of faculty and enables them to provide more practical aspects in the curriculum.
- **Research & Development:**
  - The faculty members are encouraged to attend FDPs, Workshops, Seminars and Conferences.
  - Teachers are encouraged to publish their work in journals and conferences.
  - Availability of online journals.
  - Eminent scientists and speakers are invited for talks.
  - Providing financial help for the research work.
  - Involving the students in Research based projects so that they are exposed to the research culture.
  - Faculty members are encouraged and given power to select their preferred area of research, write project reports/proposals to get funding from various funding agencies. Further in all R&D projects funded by outside agencies full freedom is given in the execution and implementation of the project. Such a step inculcates leadership qualities in the faculty.
  - At present research activities in different R&D centers of the institution is progressing. These research activities are funded by outside agencies to a tune of fifty lakhs.

### 6.1.9 How are the following values reflected in various functions of the College?

#### \* contributing to national development

- ✓ Producing quality engineers and managers with moral and ethical values to serve the nation.
- ✓ Research and developmental works for the benefit of society in general.
- ✓ Cater to the needs of industries by way of producing competent and technically sound engineers.
- ✓ To impart education blended with skill, dynamic leadership and human resource management, so as to enable them to become bureaucrats by clearing competitive examination like IAS, IPS, IFS, etc
- ✓ Conducting blood donation camps, eye check up camps, Environmental awareness programs, Internet training program for rural high school children, etc.

### Fostering global competencies among students

- Students are involved in inter college projects such as STUDSAT, sponsored by ISRO, etc.
- Departments have their individual student forums through which students have obtained membership of prestigious bodies like IEEE, ASHREA, NIPM, etc.
- Career guidance programs are conducted for students for pursuing higher studies in foreign universities.

### Inculcating a value system among students

To inculcate self development, spiritual and ethical values among students, programs are conducted by Global Harmonics, an offshoot of ISKCON.

### Promoting use of technology

- ❖ Staff members are encouraged to prepare learning management materials to be uploaded in the college website.
- ❖ Staff members are encouraged to prepare video lectures of laboratory courses.
- ❖ Staff members are provided with laptop to prepare e-content.
- ❖ Students are using Virtual lab facilities, online feedback, online examination systems, online filling of examination forms, result viewing, LMS, etc.
- ❖ Internet awareness programmes for school children
- ❖ Parents are receiving the progress reports of their wards through SMS and result viewing through website.
- ❖ Monitoring the student movement through CCTV Surveillance system.

### Quest for excellence

The institution is aiming to be a pioneer in the field of imparting technical education by continuous improvement in academic profession, research and development.

- The college has secured permanent affiliation from the University for All its Programmes.
- The autonomous status was sought by the college and granted by VTU and Government of Karnataka
- The college has initiated the discussions and negotiations with Royal Melbourne Institute of Technology (RMIT) University, Australia, for academic collaboration. In this direction, the first meeting was held at NCET with Deputy Pro Vice Chancellor of RMIT on 1.12.2015.

### 6.1.11 Give details of the UGC autonomous review committee's recommendations and its compliance.

The college has submitted the report to UGC and awaiting the visit of UGC autonomous review committee.

## 6.2 Strategy Development and Deployment

### 6.2.1 Does the College have a Perspective Plan for development? If so, give the aspects considered in development of policy and strategy.

Yes,

- The institute has Autonomous status under VTU. Autonomy permits the institution to design and implement its own curriculum.
- New programmes to be introduced are planned well in advance. The background work, its pros and cons, requirement of infrastructure facilities, new equipment required, man power requirement are thoroughly looked into before taking up the implementation of new programmes.
- Increase in intake of students for the existing programmes is also planned well in advance. The background work, its pros and cons, requirement of infrastructure facilities, new equipment required, man power requirement are thoroughly looked into before taking up the implementation of new programmes.
- Improving the Industry- Institute interaction and strengthen the placement and training activities to ensure effective placement of our students.
- Encouraging the faculty members to apply for the grants, to actively participate in the research and consultancy work.
- To develop the institute as “Center of Excellence”, in technical education

### Teaching and learning

- Faculty members are encouraged to upload their course material on the learning management portal.
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- Institute provides variety of text books, manuals, E learning materials like E-journals and digital library facility to faculty for the effective teaching.
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- Teachers are encouraged to publish their work in journals and conferences.
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- Eminent scientists and speakers are invited for talks.
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- At present research activities in different R&D centers of the institution is progressing. These research activities are funded by outside agencies to a tune of fifty lakhs.

### Community engagement

- Institute organizes “Blood Donation Camp”, in association with the Red Cross Society of India, Rotary club and Lion’s club, Bangalore.
- “Student Internet World”, a computer training program for high school students is organized every year.
- Environmental Day is celebrated.
- The institution has NSS unit which actively undertakes activities such as Dental check up camp, Eye check up camp, Environmental awareness programmes and NSS unit has been taking up many social development and awareness activities.
- The college has SC/ST Book Bank facility.

### Human resource planning and development:

#### ❖ Recruitment related:

- Recruitment for all cadres of teaching and non teaching staff is done as per the AICTE norms from time to time.
- The screening committee screens the applications and expert committee conducts an interview of the short listed candidates to finalize the selection.
- The recruitment is done by inviting applications from the eligible

candidates through the news paper advertisements. For higher level posts which require special skill and talents suitable candidates are directly contacted and invited to join the institution.

### The evaluation of staff performance

- The evaluation of the teachers is done by taking online feedback from the students twice in a semester. These feedbacks are analyzed by the HOD and Principal, whenever necessary inputs are given to faculty for corrective actions.
- At the end of the each academic year, a self appraisal is taken from the staff along with the comments and remarks from the HODs.
- The annual increment and promotion of the staff is based on the above aspects.
- HR department of the institution identifies the training needs of the staff and makes arrangement to provide/depute the teachers to such training programmes.
- The Institution has “Grievance Redressal Cell” and “Women’s Welfare Committee” to resolve the grievances reported by the staff.

### To retain talented teachers and reduce employee turn over the following measure are taken:

- Service benefits like PF, Maternity leave etc are made available to all the staff.
- Group insurance facility for staff members to cover accidents
- Study leave/Deputation is given to teaching staff to pursue higher studies.
- Vacations at end of every semester to the teaching staff.
- Staff Quarters for employees.
- Financial support to teaching staff with deputation facility to attend national and international conferences to present papers in India and Abroad.
- Salary and allowances as per AICTE norms.

### Industry interaction

- Institute has Institute-Industry Interaction Cell and is responsible for:
  - Encouraging the students to take up internship programmes in the relevant industries of their domain.
  - Arranging the industrial visits.
  - Organizing guest lectures and expert talks from eminent resource persons from industries to enrich the students with the latest updates of the Industries and technologies.
  - Encouraging the students and staff to establish incubation center.
  - Institute has MOUs with many industries and organizations like Oracle, EMC<sup>2</sup>, TCS-ion, NIIT, Wipro, NCC, Data Talk, EthnoTech, IIT Mumbai, etc. which provides an opportunity to interact with industries.
  - The college has a “Consultancy Cell” to carry out consultancy work which caters to various Government and Private Organizations.

### Internationalization

- MOU with foreign universities have been initiated.
- Staff and students are participating in international conferences conducted abroad.
- Eminent professors from foreign universities are invited to deliver webinars and guest lectures.

### 6.2.2 Enunciate the internal organizational structure of the College for decision making processes and their effectiveness.

The organization structure of an institution begins with the top management and the authority flows from the top management to the principal, from the principal to the HODs and from HODs to Teaching and Non teaching staff.

The brief profile of top management of the institution is given below:

NCET, is the brain child of Sri J.V. Ranga Raju, Secretary, NES. He is also the Director of the prestigious NCC & the Chairman of the Governing Body of our college. His contribution to education and philanthropy is immeasurable.

Smt. Sridevi Ranga Raju, is the founder member of NES. She takes keen interest in overall development of Nagarjuna Group of Institutions. Sri K.V. Sekhar Raju, President, NES actively involves himself in the activities of our College.

NCET is fortunate to be under the dynamic leadership of its young CEO, Sri. J. Chaithanya Varma. He is leading all of us in the right direction so as to develop NCET as one of the top engineering colleges in Karnataka. He encourages the students in all possible ways.

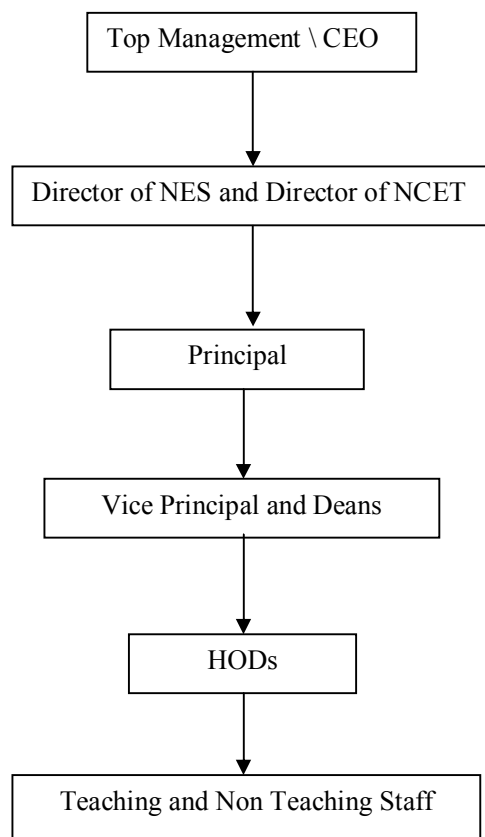
Mrs. Bhanu Chaithanya Varma, Member-NES, takes keen interest in the teaching learning process and other activities being conducted at the college.

Dr. K.S. Deshikachar, Director-NES, is an alumnus of IISc, Bangalore. He has a vast academic experience at KREC, Surathkal, presently called NITK, Surathkal. He is a great visionary who has contributed towards the overall growth and development of the college.

Sri. Lakshmipathi Raju, Director-NCET, is an able administrator and has been contributing to the overall development of the institution.

Dr. S.G. Gopala Krishna, Principal – NCET, has excellent academic credentials. He has about three decades of academic experience and about two decades as principal at various engineering colleges.

The organizational chart of the institution showing the decision making process is given below:



### 6.2.3 Specify how many planned proposals were initiated/ implemented, during the last four years. Give details.

- The proposal to start four M.Tech programmes namely M.Tech in Machine Design, M.Tech in VLSI Design and Embedded Systems, M.Tech in Construction Technology and M.Tech in Structural Engineering were planned and implemented.
- The proposal to increase intake in Mechanical and Civil Engineering was taken up and increase in intake was granted by VTU and AICTE.
- The permanent affiliations for all the programmes have been planned from 2011-12 and secured from VTU and Govt. of Karnataka in the subsequent years.
- The proposal to become an autonomous institution under VTU was mooted and taken up at VTU/Government of Karnataka/UGC level. As the institution has already fulfilled all the required conditions, the autonomous status was granted.
- The proposal to construct state of the art hostel block was accepted and implemented by the top management. The mess hall was proposed and completed
- The roof top solar power plant of 100KW capacity was planned and installed.
- A new mechanical engineering block has been planned and the work started.
- The proposal to get accredited by NAAC was mooted and SSR was prepared and submitted to NAAC. Visit of NAAC committee is awaited.

### 6.2.4 Does the College have a formally stated quality policy? How is it designed, driven, deployed and reviewed?

Yes,

The institution is ISO-9001:2008 certified and its quality policy is:

“Nagarjuna college of Engineering and Technology”, shall be maintained, as an “Institution of Excellence”, in the domains of Engineering, Technology & Management Studies through continual improvement of system, processes and academic professionalism.

During the first ISO certification in the year 2006, after several brain storming sessions the above said quality policy was arrived. From 2006 onwards care is taken to implement the quality policy effectively as per the requirements of ISO-9001:2008 standards.

The management has evolved a system for periodical review of the continuing suitability of the quality policy in the changing world scenario.

The role of top management, Principal and faculty in design, implementation of its quality policy and plans are as under:

- **Role of the top level Management:**

The top management is responsible and authorized:

- For approval of the Annual budget
- For approval of Incentive scheme for faculty and students.
- For approval of construction of proposed building
- For approval of starting of new programmes and variation in intake of the existing programmes.
- For approval of laboratory development
- For approval of up gradation of computational facilities
- For approval of faculty and non-teaching staff promotions approval

- **Role of Principal:**

Principal is responsible:

- For ensuring the resources required to conduct the curriculum as specified by the affiliating university.
- For conducting both internal and external examinations.
- To liason with various agencies like UGC, AICTE, DTE and VTU.
- To assess the faculty performance and initiate the appropriate up gradation / development programmes.
- To identify and recommend standardization of various activities through appropriate software and hardware.
- To identify and conduct training programmes for staff and students.
- For installing active Institution-Industry interaction.
- For planning and implementing training and placement assistance programmes.
- To determine the activities to be outsourced & to ensure full control over the out sourced processes.
- To take measures to prevent ragging, indisciplinary activity and implement proper counselling methods, women welfare measures and encourage the students to participate in sports and cultural activities.
- To organize parent teacher meetings, academic council meetings, governing body meetings, etc.
- To prepare annual budget for the institution, planning for the laboratory expansions, planning for start of new programmes, etc.
- Arrange meetings with Head of Department (HODs) and coordinators for effective review of policies and procedures which involve the institution, staff and students.
- To arrange for the recruitment of the required human resources.

- **Role of the HODs:**

HODs are responsible:

- For conducting the academic activities as per the affiliated university regulations.
- To identify and organize co-curricular activities.
- To identify and organize counseling programmes for the students through the counselors.

- To ensure the effective performance by the staff.
- To identify and arrange required programmes of training, up gradation and development for the staff and students.
- To enhance the knowledge of faculty members in the department in line with the technological development
- To equip the faculty and students for accessibility to the National and International resource materials.
- **Role of the Faculty:**  
**Faculty has to ensure:**
  - That the course material, question bank, lesson plan, teacher's diary etc. are prepared on time.
  - That the syllabus coverage always synchronizes with the lesson plan by taking special classes/extra classes where ever necessary.
  - That the student attendance, internal assessment details, laboratory performance details etc. are properly maintained and scrutinized at regular intervals by their respective HODs.
  - That counselling of students assigned to him/her is carried out effectively, the performance of the student is sent to parents through SMS/phone call/E-mail and participate in Parent-Teacher meet to interact with the parent, thereby contributing to the betterment of performance by students.
  - That any arrears in the lab / workshop programs by any student by any reason are taken care of and the student is helped to complete the programme.
  - That his/her knowledge and skills are updated by way of participating in quality improvement programmes such as FDP, workshops, conferences, seminars, symposiums, R&D etc.
  - That any work assigned by higher authorities is satisfactorily carried out.
  - That active participation in sports, cultural and other co-curricular activities.
  - That all the periodic tests for theory and practical are held as per the calendar of events.
  - That the students maintain their notebooks, records etc, for the subjects systematically by making periodical random checks.
  - That the course delivery is carried out efficiently and effectively preferably with the support of teaching aids such as LCD projector, smart boards, charts, models etc.
  - To ensure that maximum possible references to various University questions are made possible by widening the scope of question banks in advance to University Examination.

- To ensure that their knowledge level is enhanced by various means like attending seminars and presenting papers, utilizing library and latest journals and periodicals etc.
- To ensure that students are encouraged and guided properly to participate in seminars, competitions, projects and visits.
- To ensure wherever necessary special classes are arranged and available for the students seeking clarifications and to clear doubts.
- Faculty co-operates with HOD and plan actions to maintain overall discipline and punctuality.
- Faculty assists HOD in carrying out departmental activities, organizing cultural activities and activities connected with social functions whenever called for.
- Faculty in-charge of laboratories / workshops assists HOD in preparing budget and purchase of materials.
- Faculty assists HOD in getting the examination result analysis, progress report and feedback from students etc to ensure improvement wherever needed.

**6.2.5 How does the College ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder-relationship?**

The Institution has grievance redressal cell to resolve the grievances reported by the staff and students.

**Grievance redressal committee.**

Sl. No	Name	Designation/ Department
1	Dr. S. G. Gopala Krishna	Principal
2	Dr. N. G. S. Udupa	Vice Principal & Head-ME (PG)
3	Dr. G. S. Jayadeva	Prof & Head – EC
4	Dr. Shantha Kumar Patil	Prof & Head – CS
5	Prof. B Roopashri Tantri	Prof & Head – IS
6	Dr. N. Kapilan	Prof & Head – ME
7	Dr. T.M. Mohan Kumar	Prof & Head – CV
8	Prof. V Nagendra	Professor-CV
9	Dr. N. Sandhya	Prof & Head – MBA
10	Mr. Sarvesha. M. V	HOD – Maths
11	Dr. Manjunatha K	HOD – CHE
12	Mrs. Sharada. T	HOD – PHY
13	Dr. Rajendra S	P & Head – CV – P G - Convenor

Grievances are classified as student related, staff related, women/girl students related, hostel related, amenities related etc are referred to concerned people. Grievances are resolved based on their priorities. For example issues related to the girl students/women employees and ragging are given higher priority. The mechanism to analyze the grievances is given below:

- Students' Grievances related to quality of teaching and other issues related teaching learning process are resolved by the principal in consultation with the respective HODs.

- Grievances of girl students and women employees are referred to the Women's Welfare Committee.
- Grievances of teaching and non-teaching staff related to increments, promotions, deputations etc. are resolved by the principal in consultation with the top management.
- Examination related grievances are taken care of by allowing the students to receive photo copies of answer scripts with provision for revaluation and challenge revaluation.
- Hostel related grievances such as quality of food, availability of water, lighting, housekeeping etc. are referred to the chief warden.
- Grievances related to canteen, college transport, library and other departments are resolved by principal in consultation with respective committee heads and HODs.

In case a grievance cannot be resolved easily and requires detailed enquiry, principal constitutes enquiry committee to resolve the grievance.

**6.2.6 Does the College have a mechanism for analyzing student feedback on institutional performance? If yes, what was the institutional response?**

Yes,

The student feedback on institution performance is taken by the students on various issues such as,

- Quality and quantity of food in college canteen.
- College transport system.
- Library facilities.
- Campus recruitment facility.
- Laboratory and computers facilities.
- Issues related to drinking water, ladies rest room and toilets.
- Issues related to the departments and HODs.

A separate feedback is taken from inmates of both boys and girls hostels about the quality of food, cleanliness, security, drinking water and hot water, lighting, internet facility etc. Based on these feedbacks, corrective measures were initiated.

**6.2.7 In what way the affiliating University helped the College to identify the developmental needs of the College?**

- VTU funds the research proposals in the emerging and thrust areas.
- Every year Local Inspection Committee of VTU visits the college to inspect whether the college conforms to AICTE norms. Any deviation will be reported to the principal/management to initiate corrective action.

**6.2.8 Does the affiliating university have a functional College Development Council (CDC) or Board of College and University Development (BCUD)? If yes, In what way College is benefitted.**

Yes, There is a monitoring committee which visits the college at regular

intervals. The committee consists of members from VTU, UGC, Govt of Karnataka and others. The university has established Academy for Staff Development and conducting orientation programmes for new teachers and refresher programmes for various courses for the benefit of the teachers of the college.

**6.2.9 How does the College get feedback from non-teaching, teaching, parents and alumni on its functioning and how it is utilized?**

- Feedback is taken from non-teaching staff about their training requirements, requirement of equipment in the laboratory, service conditions and other personal grievances.
- Alumni meet is conducted periodically and feedback from alumni is taken for the overall development of the institution.
- Feedback from recruitment HR team and employers is taken to meet the expectations of the industry.
- Parent Teachers Meeting is conducted twice in a semester and parents are informed about their ward's performance. Feedback is taken from parents to improve the quality of teaching learning process and achieve the objective.

**6.2.10 Does the College encourage autonomy to its academic departments and how does it ensure accountability?**

- Departments of the institution are given full academic autonomy and administrative autonomy. However the departments are given financial autonomy to a limited extent.
- Academic related matters such as attendance of students, setting of internal test question papers, conduction and evaluation of internal test, design and development of question bank, identifying of eligible external examiners etc. are done independently by the departments.
- Appointment of teaching and non teaching staff, promotion/increment of department employees, leave related matters, allocation of subject, preparation of course material, monitoring syllabus coverage, counseling, arranging special classes for slow learners etc are done independently by departments.
- Departments are provided with full autonomy to plan and organize Short Term Programmes, conferences, seminars, industrial visits, institute-industry interaction etc. budgets prepared by the departments to cover the expenses of above said activities are generally approved by the principal and the top management.
- Departments are given autonomy to prepare the estimates for future expansion of the departments which includes infrastructure, laboratory equipments, computers, furniture, man power requirement etc.

**6.2.11 Does the College conduct performance auditing of its various departments?**

Yes,

- The institution carries out the academic audit of its academic activities such as lesson planning, preparation of course material, preparing question bank, conduction and evaluation of internal test/CIE, counseling, monitoring the students attendance status and performance in test/CIE, syllabus coverage,

- conducting semester end examinations etc.
- The inspection of all the above said activities is carried out by an ISO team.
- Corrective actions are initiated for non conformities.
- In addition, audit of all the academic activities is carried out through internal audit once in three months. Non conformities if any are resolved to achieve satisfactory corrective actions.

### 6.3 Faculty Empowerment Strategies

#### 6.3.1 What efforts are made by the College to enhance the professional development of teaching and non teaching staff?

**Following are the steps taken to enhance the professional development of its teaching staff:**

- Study leaves facility for those candidates who wish to pursue higher qualification either in Masters or Ph.D.
- The institute sponsors and grants leave to participate in national/international conferences/seminars.
- Faculty members are encouraged to take up research work and publish the papers. Funding is provided for the research work.
- They are encouraged to participate in the workshops, Guest lectures, seminars, FDPs, conferences etc. organized in other reputed institutions.
- They are encouraged to organize workshops, Guest lectures, seminars, FDPs, conferences etc.
- Access E-learning resources available in the library.
- Institution has been recognized as the Nodal Center for Virtual Lab facilities sponsored by MHRD, GOI and supported by all IITs and IISc. The staff is encouraged to use this facility and to design new experiments on similar lines.
- They are allowed to participate in the training activities organized by the industries.
- Institute has MOUs with leading industries through which they are allowed to attend technology focused programmes.

**Following are the steps taken to enhance the professional development of its non teaching staff:**

- Update their computer knowledge.
- Attend training programs in advanced skills related to their work

#### 6.3.2 What is the outcome of the review of the Performance Appraisal Reports? List the major decisions.

- The staff submits self appraisal report indicating his/her achievements during the academic year. Information given in self appraisal report is scrutinized by the respective HODs and forwarded to the principal with comments and remarks.

Principal scrutinizes the information in appraisal forms, makes his remarks and sends it to the top management to take the appropriate actions as related to increments, promotion and deputations.

- The outcome of the review of the performance appraisal reports is communicated to the concerned staff by the principal.

### 6.3.3 What are the welfare schemes available for teaching and non teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

Following are the welfare schemes available for teaching and non teaching staff:

- Service benefits like PF, Study leave, Maternity leave etc.
- Vacations of one month at the end of every semester.
- Staff Quarters for faculty members.
- Encouragement for research and development activities.
- All allowances as per AICTE norms.
- Group insurance facility for staff members covering accidents to a tune of rupees ten lakhs.
- Financial support to participate in national and international conferences to present their technical papers.
- Laptops are provided to the staff.

### 6.3.4 What are the measures taken by the College for attracting and retaining eminent faculty?

- The talented and eminent faculty is given higher salary, superior designations like professor, dean, HOD etc.
- Talented faculty who serves in the institution for more than ten years are given special incentives.
- Deputation of talented faculty to university abroad for acquiring better skills.

### 6.3.5 Has the College conducted a gender audit during the last four years? If yes, mention a few salient findings.

Institute does not discriminate the students and staff on the basis of their caste, creed, religion and gender issues. Hence gender audit is not conducted.

### 6.3.6 Does the College conduct any gender sensitization programs for its staff?

- Women Welfare Committee is functioning in the institution to look into harassment and discrimination on girl students and women employees, if any.
- Lady Wardens of girl's hostel works as mentors for girl students.
- To ensure women friendly learning environment in the Campus, institute provides separate hostel for girl students with round the clock security, adequate space like womens' rest room, toilets etc. The hostel is also provided with in-house library, Wi-Fi and good sports facility.

- Institute does not discriminate the students and staff on the basis of their caste, creed, religion and gender issues.

### 6.3.7 What is the impact of the University's UGC-Academic Staff College Programmes in enhancing competencies of the College faculty?

Our faculty members are deputed to various faculty development programmes organized by other reputed institutions and funded by VTU, AICTE and UGC. VTU has established Academy for Staff Development and conducts orientation programme for new recruits and subject pedagogy workshops. Such programmes have greatly enhanced the competencies of the college faculty.

## 6.4 Financial Management and Resource Mobilization

### 6.4.1 What is the institutional mechanism to monitor effective and efficient use of financial resources?

- The management has been spending a huge amount of money to develop the required infrastructural facilities such as buildings for various departments, administrative block, laboratory equipment, ladies and boys hostel building, buildings for library, canteen and sports.
- NCET is a self financed institution. As applied to recurring expenditure, the institution depends on the fee collected from students for its routine expenses such as salary of teaching and non-teaching staff, maintenance of building and equipment etc.,. Any balance amount is credited to the corpus fund of the institution.
- A large number of students have been given fee concession by management and the amount of concession given is borne by the management to encourage the poor, needy and meritorious students to pursue their engineering studies.
- College transport services and college canteen are getting subsidy from the management. The unrecovered amount related to college transport and running of canteen is borne by the management.
- To ensure that finances allocated to different facilities/activities in the institution are being used properly, the management has appointed qualified internal auditors and experienced staff to monitor effective and efficient use of financial resources.

### 6.4.2 Does the College have a mechanism for internal and external audit? Give details.

The Quality Management System covering all the parameters are audited by internal ISO audit teams once in every three months and by the externals surveillance audit teams once in a year.

The financial audit is carried out by auditors appointed by the management..

- 6.4.3 Provide audited income and expenditure statement of academic and administrative activities of the previous four years.

Audit report for the last four years is provided in Annexure-VI

- 6.4.4 Have the accounts been audited regularly? What are the major audit objections and how are they complied with?

YES.

The last audit was done by 31<sup>st</sup> March 2015. In the last audit there was no major audit objection. We are hereby enclosing the last audited balance sheet and income and expenditure A/c for the year ended 31.03.2015 along with audit report for the whole society.

Audit report for the last year is provided in Annexure-VI

- 6.4.5 Narrate the efforts taken by the College for resource mobilization.

- Different financial sources available are.
  - Fee collected from students.
  - Funding from different funding agencies such as VTU, AICTE, VGST, KSCST, Institute of Engineers and other R&D centers.
  - Contribution from the management.

- 6.4.6 Is there any provision for the College to maintain the 'corpus fund'? If yes, give details.

Yes. The corpus fund is available with the Institute

## 6.5 Internal Quality Assurance System

### 6.5.1 Does the College conduct an academic audit of its departments? If yes, give details.

**Yes**

Internal Quality Assurance Cell of the institution is given below:

Sl. No.	Name	Designation
1	Dr. S.G.Gopala Krishna, Principal	Chairman
2	Dr. N.G.S Udupa, Vice principal	Member
3	Dr. M.S. Govinde Gowda, Dean( ACA)	Member
4	Dr. Harisha P Dean-Administration	Member
5	Trained Internal Auditors from different departments at faculty level	Member
6	Two Instructors from different departments	Member
7	Two Assistant Instructors from different departments	Member
8	Librarian	Member
9	Physical Education Director	Member
10	Office Superintendent	Member
11	Campus Administrator	Member
12	Dr. Gururaj Murtugudde, Professor, ISE	Member Secretary/ Co-ordinator

- **Responsibilities of IQAC:**

- To carry out quality assurance check four times in a year. The co-coordinator prepares an Annual Internal Quality Audit Plan and gets approval from the principal.
- Coordinator prepares the detailed Audit Schedule for each round of audits and shall intimate the auditees and auditors well in advance. The selection of auditors and conduct of audits shall ensure objectivity and impartiality of the audit process. Auditors shall not audit their own work.
- The Top management is audited for its responsibility, commitment, customer focus, quality policy, quality objectives, Quality Management System, Planning, defining responsibility and authority & provision of resources.
- Coordinator shall be audited for the general requirements of quality management system, documentation requirement, quality manual, control of documents, control of records, internal audit & monitoring and measurement of processes.
- The teaching departments shall be audited for planning of product realization, customer related processes such as conducting Internal tests, counselling, final examination etc., product and service provision, monitoring and measurement of product, control of non-conforming product, analysis of data and improvements.

- Principal / Office & administration shall be audited for product realization, customer related processes, product and service provision, Infrastructure etc.
- The college library shall be audited for work environment, availability of books, Journals and periodicals, analysis of data and improvements. Hostel shall be audited for customer communication, customer satisfaction, Analysis of data, and improvement and the sports section shall be audited for human resources, facilities, analysis of data & improvements.

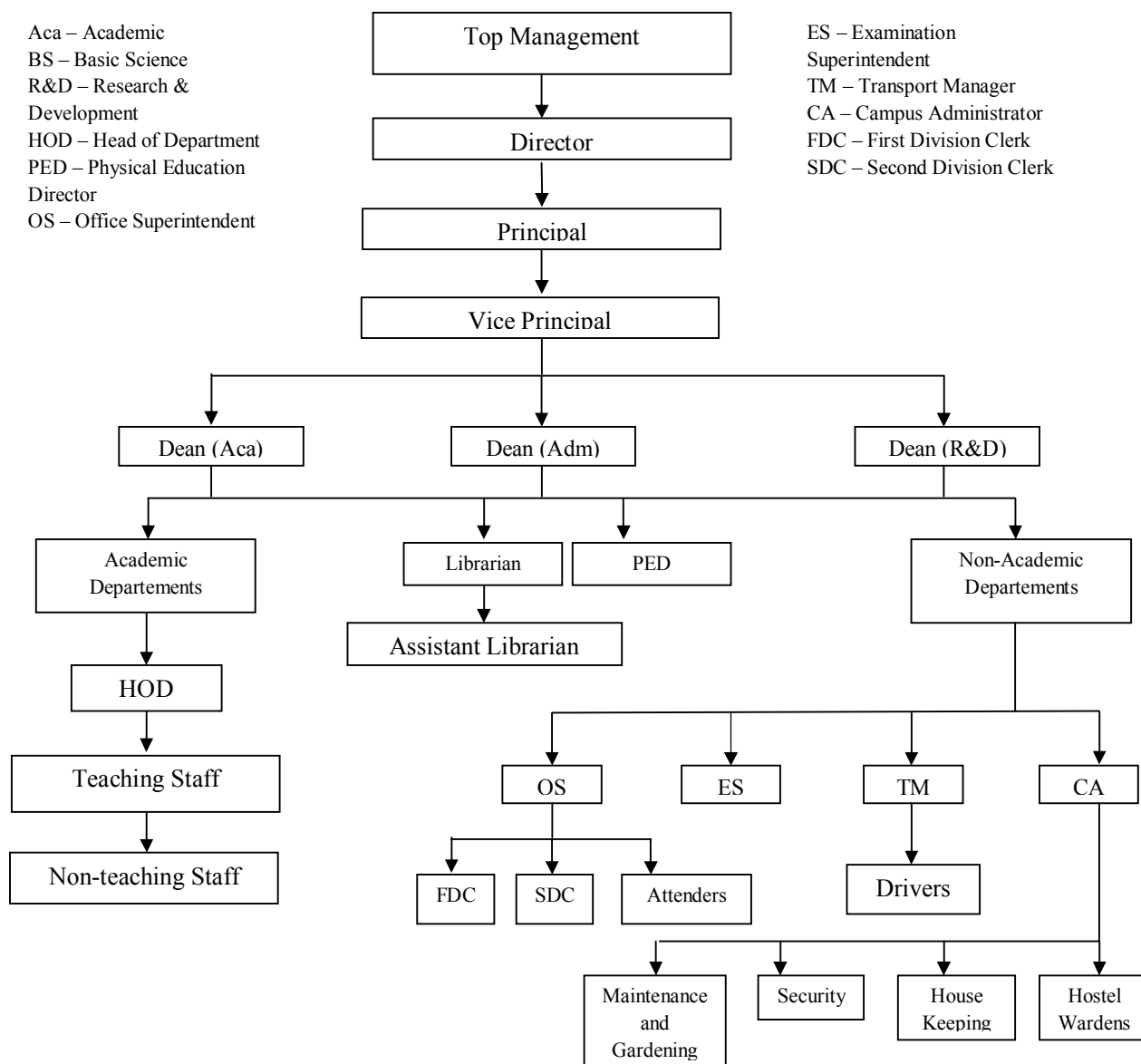
6.5.2 Based on the recommendations of academic audit what specific measures have been taken by the College to improve teaching, learning and evaluation?

**Audit approach and Implementation**

- The auditors explain scope of audit to the auditees before the start of Audit. Assigned auditors shall carryout objective evaluation of the quality system during the audits, along with internal quality audit checklist .
- **Non conformities**
  - The audit is carried out seeking objective evidence to ensure compliance with the system and also effectiveness to meet the requirements. If the observations are not compliance with the requirements then it should be recorded in the Non Conformance Report. Non-Conformances are brought to the notice of the auditees for obtaining explanations if any.
- **Reporting and Follow-up of Audit Findings**
  - Auditors shall report the audit findings (non-conformance) in NC report and observations and suggestion for improvement.
  - The management responsible for the area being audited shall ensure that any necessary corrections and corrective actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow- up activities shall include the verification of the actions taken and the reporting of verification results.

## 6.5.3 Is there a central body within the College to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

The structure and hierarchy of the mechanism to review the teaching learning process are as below:



Continuous review of teaching learning process involves review of teaching, conduction of tests, counseling, feedback from students, conduction of examination and review of results. Overall guidelines to review teaching learning process are refined by the top management/CEO, Directors, Principal and Deans.

- Teachers have to fill the teacher's diary showing clearly the day and date on which the classes are taken and actual portion of the syllabus covered. HODs

have to scrutinize the teacher's diary with respect to lesson plan. If any phase difference is there between the lesson plan and teacher's diary, corrective measures are initiated.

- HODs and Deans frequently visit both the lecture and laboratory classes, and takes stock of teaching skills of concerned teachers. Based on their observations teachers are advised to incorporate changes in their teaching methodologies.
- The quality of question papers set by the teachers are scrutinized by respective HODs.
- After each internal test/CIE, performance of the student is analyzed by the course teachers. HODs shall go through the test result analysis to initiate corrective measures.
- Students' feedback is taken on every course after each test/CIE to evaluate course performance. The feedback and the remarks of the students are sent to respective HOD and concerned teachers for corrective measures.
- HODs conduct staff meetings and Principal conducts HODs meeting at regular intervals to monitor and review the academic performance and progress during the semester.
- Institute regularly organizes Parents-Teachers Meet where parents can interact with counselors and course teachers about their ward's performance. Further feedback about the institution, departments and teaching learning process is taken from parents.
- At the end of the semester, final examination/SEE is conducted to assess the performance of students. The result analysis is carried out and reason for poor performance, if any, is evaluated and remedial measures are initiated to improve teaching learning process.

**6.5.4 How has IQAC contributed to institutionalizing quality assurance strategies and processes?**

The periodic audits by IQAC has contributed to several improvements in the functioning of the college.

**6.5.5 Does the IQAC have external members on its committees? If so, mention any significant contribution made by such members.**

The internal audit team members who audit a particular department are drawn from other departments. The annual surveillance audit teams consists of external members.

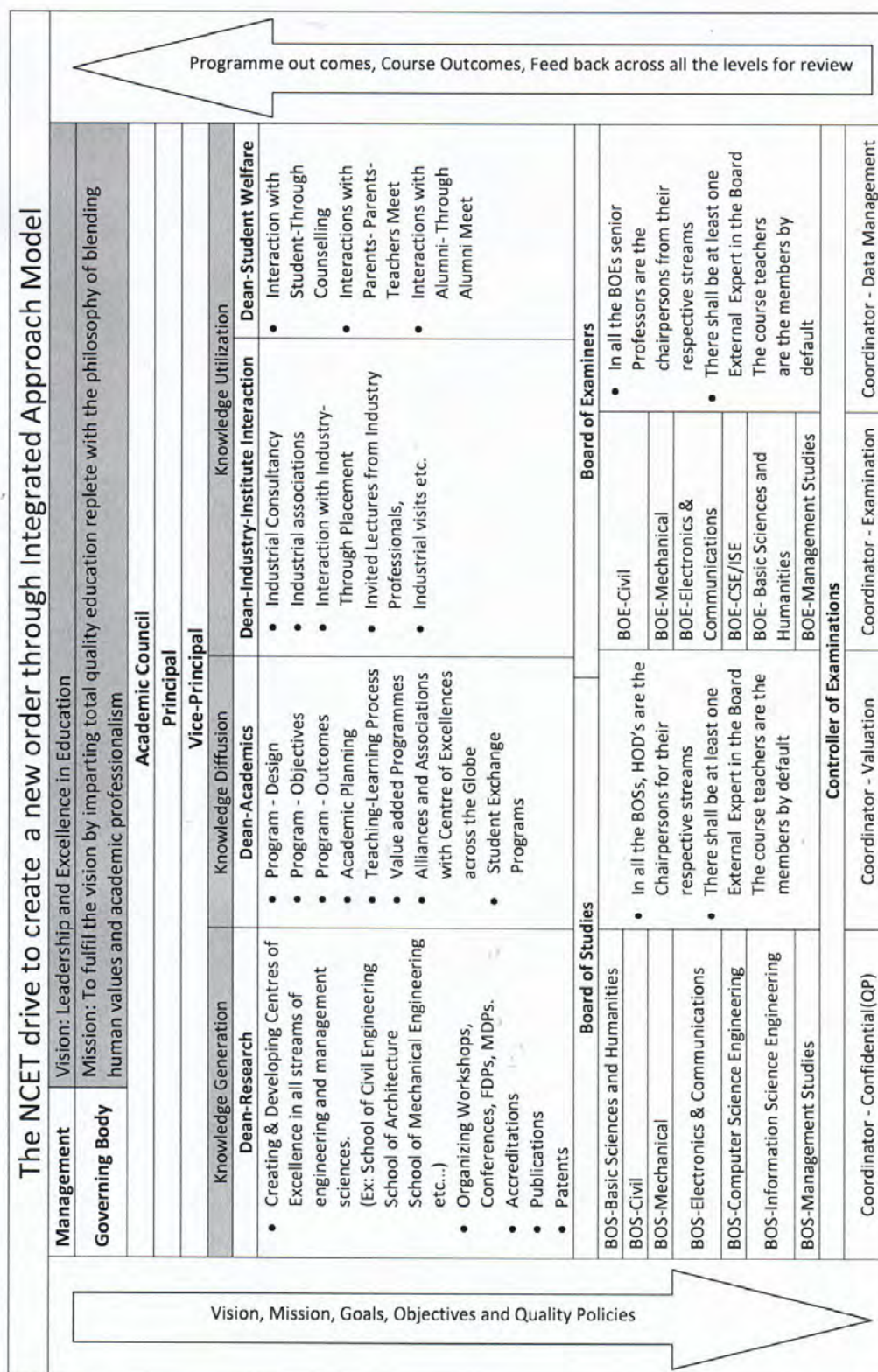
**6.5.6 Has the IQAC conducted any study on the incremental academic growth of students from disadvantaged sections of society?**

The incremental academic growth of all students is monitored through an effective Counselling system. Students belonging to disadvantaged sections of society such as SC/ST, OBC, Women, and physically challenged are given special attention in counselling.

**6.5.7 What policies are in place for the periodic review of administrative and academic departments, subject areas, research centres, etc.?**

- The academic activities of the departments are continuously monitored by the deans and principal. The top management conducts the progress meetings at regular intervals.

*Any additional information regarding Governance, Leadership and Management, which the institution would like to include.*



## **CRITERION VII**

### **INNOVATIONS AND BEST PRACTICES**

#### **7.1 Environment Consciousness**

##### **7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?**

Yes,

The institution is very conscious towards conservation, safety and sustainability of environment. It adopts environmental friendly practices and takes necessary steps to maintain good environment and hygienic conditions.

**The following measures are taken by institution to develop green environment:**

- The campus is designed and landscaped in such way that the campus is full of trees and well maintained gardens.
- The institution has implemented Roof top solar power plant of 100 KW capacity which serves as a supplement power source for the institution.
- The campus is illuminated with solar street lights.
- The hostel blocks are provided with solar energy for supply of hot water.
- The institution has rain water harvesting system.
- The institution has sewage treatment plant and treated water is used for maintenance of gardens.
- To maintain hygienic atmosphere, all the blocks of college and hostel are provided with adequate number of dustbins.
- Awareness about cleanliness in the campus is created among the students by organizing Environmental Day.
- Tree plantation is done to maintain greenery in the campus.

The Green Audit of above said activities are done as below:

- A count of number of trees in the campus is maintained and to ensure that this number continuously increases.
- The functioning of the solar lights, roof top solar power plant, solar water heaters, sewage water treatment plant etc., are inspected once in every month for their proper functioning. Further, the regular maintenance is carried out once in a year.

### 7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

- **Energy conservation:**
  - The building is designed in such a way that there is natural illumination and ventilation in the buildings and across the campus.
  - The staff and students take care of switching off lights, fans and other electrical devices when they are not in use to avoid wastage of energy.
- **Use of renewable energy:**
  - Solar street lights are installed.
  - Roof top solar power plant of 100 KW capacity is installed which serves as a supplementary power source for the institution.
  - Solar water heaters are installed in hostel blocks to supply hot water.
- **Water harvesting:**
  - The institution has sewage treatment plant and treated water is used for maintenance of gardens.
  - The institution has rain water harvesting system.
- **Check dam construction:**
  - Proper passage ways for the water are built through out the campus to canalize rain water.
- **Efforts for Carbon neutrality:**
  - The institution has provided transportation facility by means of buses for both staff and students and thus reduces use of individual vehicles. This reduces air pollution.
  - All the vehicles used by the institution are maintained properly and tested for the quality of emission standards.
- **Plantation:**
  - Institution has a green sprawling campus of about 70 acres.
  - Each block of the building and playground are surrounded by large green lawns and trees.
  - Tree plantation is done to maintain greenery in the campus.
- **Hazardous waste management:**
  - Different types of hazardous waste such as
    - Components contaminated with cadmium, mercury and led
    - Components contaminated with acids, chemicals etc.
    - Broken glass items, mercury switches, burnt bulbs and tube lights, CFL lamps etc.
    - Used computers, printers, CPUs, UPS batteries etc. are

collected from various departments and disposed off in a safe manner.

- **e-waste management:**

E-wastage such as electrical and electronic assemblies, cathode ray tubes, PCBs, resistors, capacitors, condensers etc. are collected from various departments and disposed off in safe manner.

The disposal of hazardous waste is done according to guidelines given by the Karnataka State Pollution Control Board.

## 7.2 Innovations

### 7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

- Institution has been recognized as the Nodal Center for Virtual Lab facilities sponsored by MHRD, GOI and supported by IITs and IISc. This facility is being used by staff and students
- Special coaching classes for the academically weak students.
- Scholarships for poor and meritorious students to the tune of Rs. 3.5 crores.
- 5% of students are provided with free education.
- Membership of Professional Bodies like ISTE, CSI, ISHRAE, ASHRAE, CMTI, Delnet, NPTEL.
- Student Book Bank facility, where the students can borrow additional books for the entire semester. The number of extra books the students can borrow is limited to five. Under this scheme, the student has to deposit Rs.100/book.
- Implementation of Online feedback system, Online CIP/CIV Examination system, Online Leave Management System, ERP Software.
- Faculty of various department have developed softwares related to ERP Staff leave Management and Learning Management.
- Student Internet World for training high school children from rural areas..
- All the students and staff are covered for Rs. 10 lakhs under accident insurance scheme.
- CCTV Surveillance system for the entire campus including hostels.
- Celebration of Engineers Day and Environmental Day.
- Roof top solar power plant of 100 KW capacities.
- Solar street lights and rain water harvesting are implemented.
- Ethics and Value based classes are being conducted by Harmonix Global Foundation, an off shoot of ISKCON.
- Free transportation is provided on holidays for hostel students from college campus to different locations of Bangalore city to attend their personal needs.
- Good quality movies are screened during weekends/holidays in the college auditorium
- Periodically Parents-Teachers Meet is organized to provide platform for the parents to discuss about their wards performance and also to get their feedback about the teaching learning process, facilities like

infrastructure, canteen, transport etc.

- The schedule for the PTM is announced in calendar of events well in advance and the same is intimated to the parents through SMS/ E-mail/phone. It is observed that about 25% of the first year student parents attend the PTM and in subsequent years the number gradually reduces. This reflects that there is a positive impact of this innovative practice.

### 7.3 Best Practices

7.3.1 Elaborate on any two best practices in the given format at page no. 98, which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the college.

#### BEST PRACTICE-1

##### 1. Title of the Practice : “Virtual Lab Facility”

##### 2. Goal:

- To provide remote-access to Labs in various disciplines of Science and Engineering. These Virtual Labs would cater to students at the undergraduate level, post graduate level as well as to research scholars.
- To enthuse students to conduct experiments by arousing their curiosity. This would help them in learning basic and advanced concepts through remote experimentation.
- To share costly equipment and resources, which are otherwise available to limited number of users due to constraints on time and geographical distance.

##### 3.The Context:

- The virtual labs developed by faculties from the top technical institutions of the country, address the issue of lack of good laboratory facilities, as well as trained teachers, by making remote and simulation-based experimentation possible through the internet.
- Virtual labs facility for about 200+ laboratory courses and about 1500+ experiments across multiple disciplines are available.
- A virtual lab is one of the largest educational initiatives in the world and a step forward than the traditional learning method.
- Training through Virtual lab enable students to conduct innovative experiments round the clock.

##### 4. The Practice:

Institution has been recognized as the Nodal Center for Virtual Lab facilities

sponsored by MHRD, GOI and supported by all IITs and IISc. This facility is being used by staff and students.

### 5. Evidence of Success:

Table from the web site of Amrutha University are given below which highlight the keen interest of our students on virtual lab experiments and is the evidence of success.

The screenshot shows a web browser displaying the Amrita University website. The page title is 'VALUE @ Amrita' with the subtitle 'Virtual Amrita Laboratories Universalizing Education'. The navigation bar includes links for Home, Project, Workshop, Nodal Centers, News & Events, Survey, Forum, Contact us, and Login. The main content area displays a table titled 'Top 5 institutes in India, based on Virtual Lab usage for the year 2015'. The table lists five institutes with their respective percentage of usage and rank. Below the table, there are two footnotes: '\* Percentage of usage is based on the total usage of all the institutes using virtual labs from January 2015 onwards.' and '#The rankings are given based on current usage of virtual labs.' The browser's address bar shows 'vlab.amrita.edu/pg=topMenu&id=123'. The Windows taskbar at the bottom shows the Start button and several open applications, including 'Amrita Vishwa Vidyapeetham...', 'complete student dat...', and 'CRITERION IV-final -...'.

Institute/Organization	Percentage of usage*	Rank#
BMS College of Engineering	10.85%	1
Marwadi Education Foundations Group of Institutions	6.68%	2
Nagarjuna College of Engineering and Technology	6.23%	3
Ramco Institute of Technology, Rajapalayam	4.91%	4
Er. Perumal Manimekalai College of Engineering, Hosur	4.38%	5

\* Percentage of usage is based on the total usage of all the institutes using virtual labs from January 2015 onwards.  
#The rankings are given based on current usage of virtual labs.

### 6. Problems Encountered and Resources Required:

- Teachers are to be trained in conducting experiments using virtual lab facility.
- Computer and internet facility is required.

## BEST PRACTICE-2

### 1. Title of the Practice: “Students Financial Support System”

### 2. Goal

The objectives of the practice are:

- To reduce financial burden on poor and needy students who are interested in pursuing their technical education.
- To help and guide SC/ST, OBC and minority community students to get the financial benefits from Government and other agencies.
- To assist the students to get financial benefits from different sectors like defence, Local municipal councils, other state Governments, Companies etc.

### 3. The Context

Institute offers quality technical educational services to the society from its inception. Over the years, institute has observed that some students with good academic record and interested in pursuing higher technical education are dropping out due to their poor financial condition. They are facing difficulty in paying tuition and other fees, procuring the basic requirements such as hostel facility, books, calculators, Laptops etc. To help such students and enable them to continue their studies, the institution has implemented this practice in order to reduce the dropout of the students due to financial problems.

### 4. The Practice

#### Scholarship Scheme:

The institute has established a separate section for the scholarship. Two office staff are entrusted with the work of guiding and helping students to secure various types of scholarship, under the supervision and guidance of the principal.

The Scholarship Section identifies the different sources from where the students can get the financial benefits and same will be brought to the notice of the concerned students through circulars and SMS.

The scholarship section ensures that all eligible students for a particular scholarship have filled and submitted their applications online or to the scholarship section.

The list of students who have applied for the particular scholarship is consolidated and sent to the respective agencies by the principal.

The follow up action is taken by the scholarship section until students get his/her scholarship. Due to any problem, if students do not get the scholarship, the problems are resolved by the scholarship section.

In majority of the cases the scholarship amount is directly transferred to the beneficiaries account. However in some cases it is disbursed through the

college.

### **Freeship Scheme:**

5% of the students are admitted under Super Numerary Quota which is Zero fee category.

For other students who are good at academic, not eligible for any scholarship and financially weak are given fee concession by the management for their benefits.

### **5. Evidence of Success**

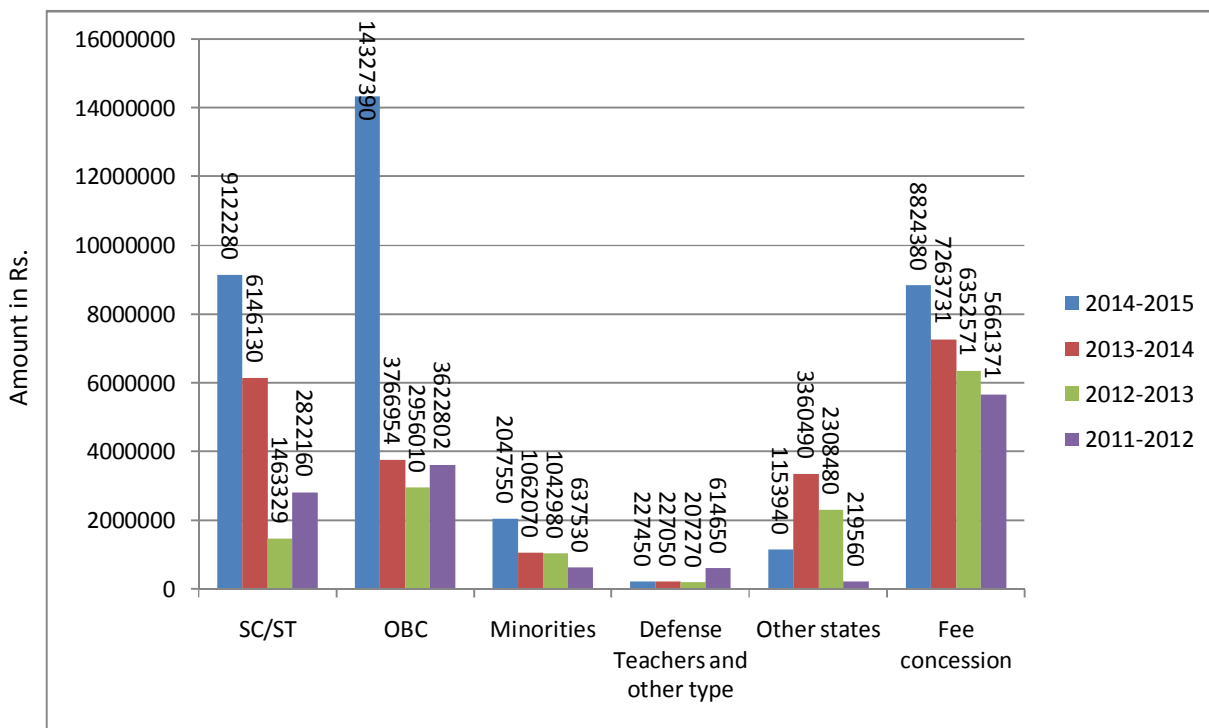
- Scholarships to a tune of about Rs.3.5 crores are received by our students in the academic year 2014-15. .
- The number of students getting financial benefits through **Students Financial Support System** is increasing from year to year.

**The statistics of the students who have benefited from the scholarship in last four years is given in the following table:**

## Self Study Report - 2015

SI No.	Type of scholarship	2014-2015		2013-2014		2012-2013		2011-2012	
		Number of students	Amount in Rs.	Number of students	Amount in Rs.	Number of students	Amount in Rs.	Number of students	Amount in Rs.
1	SC/ST	240	91,22,280	169	61,46,130	43	14,63,329	80	28,22,160
2	OBC	779	1,43,27,390	233	37,66,954	135	29,56,010	250	36,22,802
3	Minorities	54	20,47,550	28	10,62,070	29	10,42,980	23	6,37,530
4	Defense, Teachers and other type	54	2,27,450	20	2,27,050	11	2,07,270	29	6,14,650
5	Other states	23	11,53,940	53	33,60,490	26	23,08,480	2	2,19,560
6	Fee concession	296	88,24,380	193	72,63,731	149	63,52,571	127	56,61,371
<b>Total</b>		<b>1,446</b>	<b>3,57,02,990</b>	<b>696</b>	<b>2,18,26,425</b>	<b>393</b>	<b>1,43,30,640</b>	<b>511</b>	<b>1,35,78,073</b>

## Self Study Report - 2015



### 6. Problems Encountered and Resources Required.

- Creating awareness among students and make them apply for scholarship.
- Problems encountered are different from one student to other, rectifying the same is challenging.

## BEST PRACTICE-3

### 1. Title of the Practice: “Student Counselling System”

### 2. Goal

The objectives of the practice are:

- To improve of teacher-student and Institute-Parent relationship.
- To carry out effective Counselling of students to solve their problems and build confidence in them.
- To guide students to choose right career path for job, higher studies, Entrepreneurship etc.
- To improve teaching learning process.

### 3. The Context:

Over a period of last one decade, the institution has noticed several students being detained/ failing in subjects, for want of academic requirements to achieve vertical progression. Further, many students have become drop outs due to lack of awareness about regulations of the programme, lack of interest in the course, personal problems, social and economical problems. Such issues necessitated the college to implement the counseling system.

- The student needs mentoring support to achieve academic excellence.
- The scheme aims at addressing conflicts in attitudes, habits and knowledge of the students towards learning practices.
- Several supporting practices are needed to achieve better coordination of lectures, tutorials and practical classes.

### 4. The Practice:

- Institute has an effective counseling system in which 15 to 20 students are assigned to a particular teacher who has to counsel a student in a systematic way.
- Counsellor maintains a progress report of each student. Progress report contains all personal, academic, curricular and other details of the student.

- A student who is assigned to a particular counselor in the first semester continues to receive counseling from the same counselor till the student completes the programme.
- Information about the student performance is sent to parents through SMS/by making phone calls/E mails.
- Institute regularly organizes Parents-Teachers Meet where parents can interact with counselors and course teachers about their ward's performance.

### 5. Evidence of Success

- Student's attendance has improved after counseling by the counselors.
- The direct communications between counselor and students have improved the teacher-student relationship.
- Academic performances of the students have improved.
- Participation in co-curricular and extra-curricular activities has been enhanced as counselor guides the student about these activities.
- Parent-institution relationship is strengthened and the parents are happy with this practice.
- Students become more disciplined.

### 6. Problems Encountered and Resources Required.

- Whenever there is a staff turn over, training for the new staff to the existing system and effective implementation is a real challenge. In view of this, the newly joined faculty members who are not accustomed with this program are trained by the institute to take up student counseling work.
- Parents find difficulty to get information about their wards and contact details of the counselor, when the student counselor changes because of staff turn over.
- HODs encounter with problems to allocate the counselor for year back students.
- Apart from regular workload, allocating sufficient time for one to one student interaction becomes difficult task for the faculty members.

- Financial support is continually needed to procure counseling related facilities such as computers, softwares, SMS and internet facility.



Green Campus of NCET



Parent Teacher Meeting at NCET

**Department Profile**

## Department of Mechanical Engineering

1. Name of the department :  
**MECHANICAL ENGINEERING**
2. Year of Establishment  
**B.E. - 2004-05**  
**M.Tech – 2014-15**
3. Name of programmes / Courses offered

Programmes	Courses	Year Of Commencement
UG	MECHANICAL ENGINEERING	2004-2005
PG	MACHINE DESIGN	2014-2015
Ph.D.	MECHANICAL ENGINEERING	2013-2014

4. Name of interdisciplinary courses and the departments/units involved

Sl.No.	Semester	Sub.Code	Title	Teaching Dept.
1	I	15MAT11	Engg. Mathematics-I	Basic Science
2	II	15MAT21	Engg. Mathematics-II	Basic Science
3	III	10MAT31	Engg. Mathematics-III	Basic Science
4	IV	10MAT41	Engg. Mathematics-IV	Basic Science
5	V	10AL51	Management & Entrepreneurship	MBA

5. Annual/Semester/Choice based credit system
  - Choice Based Credit System from the academic year 2015-2016
  - Semester scheme for previous academic years

## Self Study Report - 2015

### 6. Participation of the department in the courses offered by other departments

Name Of The Department	Semester	Sub. Code	Subject
Mechanical Engineering	I/II	15CED14/24	Computer Aided Engineering drawing
Mechanical Engineering	I/II	15MEF14/24	Mechanical Engineering foundation

### 7. Courses in collaboration with other universities, industries, foreign institutions etc.

**Nil**

### 8. Details of Courses/programmes discontinued (if any) with reasons

- **M.Tech (Machine Design) programme in 2<sup>nd</sup> shift was closed in 2014**
- **B.E. (Mechanical) programme in 2<sup>nd</sup> shift was closed in 2014**  
**Reason: Institution wanted to have only general shift programmes. The same programmes are available in general shift**

### 9. Number of Teaching Posts

Name Of The Post	Sanctioned	Filled
Professors	4	5
Associate Professors	8	7
Asst. Professors	26	26

## Self Study Report - 2015

10. Faculty profile with name, qualification, designation, specialization, (D.sc./D.Litt./Ph.D./M.Phil. etc.,)

Sl. No.	Name	Qualification	Designation	Specialization	No. Of Years of Experience	No. Of Ph.D. Students guided for the last 4 years
1	Dr. S.G.Gopala Krishna	B.E, M.Tech, Ph.D	Principal	Supply chain Management	32	05
2	Dr. N G S Udupa	B.E, M.Tech, Ph.D	Vice-Principal	Machine Tools	44	01
3	Dr. M S Govinde Gowda	B.E, M.Tech, Ph.D	Accademic Dean& Prof.	Thermal Engg.	29	04
4	Dr.Kapilan N	B.E, M.Tech, Ph.D	Professor & HOD	Thermal Engg.	17	07
5	Dr. Kantharaj D G	B.E, MMM,Ph.D	Professor	Supply Chain Management	23	02
6	Mr.Chandrashekar Biradar	B.E., M.Tech	Assc. Prof.	Process Engineering	23	NA
7	Mr. Venkate Gowda C	B.E, M.Tech (Ph.D)	Assc. Prof.	Machine Design	11	NA
8	Mr. Yogeesh H C	B.E, M.Tech (Ph.D)	Assc. Prof.	PDM	22	NA
9	Mr. JullyaNaik L	B.E, M.Tech (Ph.D)	Assc. Prof.	PEST	19	NA

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10	Mr. Hanumanthappa N U	B.E, M.E (Ph.D)	Ascc. Prof.	Manufacturing Science &Engg.	07	NA
11	Mr. Balaji Y S	B.E, M.Tech (Ph.D)	Ascc. Prof.	Machine Design	06	NA
12	Mr. R Vara Prasad Kaviti	B.E, M.Tech (Ph.D)	Ascc. Prof.	Machine Design	05	NA
13	Mr. Ravi Y V	B.E, M.Tech (Ph.D)	Asst. Prof.	Machine Design	04	NA
14	Mr. Venkatesh B K	B.E, M.Tech (Ph.D)	Asst. Prof.	Machine Design	04	NA
15	Mr. Shashikanth G S	B.E, M.Tech (Ph.D)	Asst. Prof.	Machine Design	03	NA
16	Mr. Manjunath Raju G	B.E, M.Tech	Asst. Prof.	Machine Design	03	NA
17	Mr. Chethan M R	B.E, M.Tech (Ph.D)	Asst. Prof.	Machine Design	04	NA
18	Mr. Adarsh Reddy B N	B.E, M.Tech (Ph.D)	Asst. Prof.	Machine Design	03	NA
19	Ms. Sandya P S	B.E, M.Tech	Asst. Prof.	Machine Design	02	NA
20	Mr. Amaresh Gunge	B.E, M.Tech (Ph.D)	Asst. Prof.	Machine Design	02	NA
21	Mr. Prashanth Kumar S	B.E, M.Tech	Asst. Prof.	TEST	04	NA
22	Mr. Mohan Kumar G D	B.E, M.Tech (Ph.D)	Asst. Prof.	CIM	06	NA

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23	Mr. Bandoli Siddeshwara Iresh	B.E, M.Tech	Asst. Prof.	PDM	02	NA
24	Mr. Chethan Kumar N	B.E, M.Tech (Ph.D)	Asst. Prof.	Thermal Power Engg.	02	NA
25	Mr. Shivakumar A	B.E, M.Tech	Asst. Prof.	Machine Design	02	NA
26	Mr.Vijay Kumar M Patil	B.E, M.Tech	Asst. Prof.	Thermal Power Engg.	03	NA
27	Mr. Anand Babu K	B.E, M.Tech	Asst. Prof.	Manufacturing Science &Engg.	02	NA
28	Mr. Dhanraj P K	B.E, M.Tech	Asst. Prof.	Thermal Power Engg.	02	NA
29	Mr. Ashwin A	B.E, M.Tech	Asst. Prof.	CIM	03	NA
30	Mr.Vivek K T	B.E, M.Tech	Asst. Prof.	Machine Design	02	NA
31	Mr.Vinod Kumar R	B.E, M.Tech	Asst. Prof.	CIM	01	NA
32	Mr. Prabhakar C.G	B.E, M.Tech	Asst. Prof.	Machine Design	01	NA
33	Mr.Srinivas H S	B.E, M.Tech	Asst. Prof.	Thermal Engg.	01	NA
34	Mr. Prabhu K S	B.E, M.Tech	Asst. Prof.	Thermal Engg.	01	NA
35	Mrs. Smitha Suman	B.E, M.Tech	Asst. Prof.	Manufacturing Science	01	NA

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				&Engg.		
36	Mr. Sangamesh	B.E, M.Tech	Asst. Prof.	Machine Design	02	NA
37	Mr. Shivaram M J	B.E, M.Tech	Asst. Prof.	Manufacturing Science &Engg.	02	NA
38	Mr. Sandeep B N	B.E, M.Tech	Asst. Prof.	Machine Design	02	NA
39	Mr.Kulkarni V A	B.E, Dip in Management	Asst. Prof.	Mechanical Engg.	01	NA

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11. List of senior visiting faculty:
  1. Dr.Sreenivasa Reddy, Principal, RLJIT, Doddaballapur
  2. Dr. Kasthuriengan, CCT, Professor, IISc, Bangalore
  3. Dr. Devaraj, Professor, SJCIT, Chickballapur
  4. Prof. Niranjana Murthy, AIT, Bangalore
  5. Mr.Madhukar A, ISHRAE Bangalore Chapter, Bangalore
12. Percentage of lectures delivered and practical classes handled(programme wise) by temporary faculty : **NIL**
13. Student -Teacher Ratio (programme wise)

Sl.No	Course	Academic Year	Student Strength				Total	Faculty Strength	Student Teacher Ratio
			I Year	II Year	III Year	IV Year			
1	UG	2011-12	NA	120	120	120	360	28	15:1
2		2012-13*	NA	120	120	120	360	28	15:1
3		2013-14*	NA	180	120	120	420	43	15:1
4		2014-15*	NA	180	180	120	480	41	15:1
5	PG	2010-11	18	-	NA	NA	18	06	12:1
6		2011-12	28	18	NA	NA	46	06	12:1
7		2012-13	31	28	NA	NA	59	06	12:1
8		2013-14	31	31	NA	NA	62	06	12:1
		2014-15	11	31	NA	NA	42	06	12:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Description	Sanctioned	Filled
Technical	9	9
Administrative	1	1

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15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

Course	No. of Faculties
Ph.D	05
M.Tech	36

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

**a) National Funding Agencies and Grants Received:**

Sl.No	Faculty Name	Funding Agency	Project Title	Grants Received in Rs.
1	Dr.Kapilan N	KSCST (2013-14)	Studies on Effect of Bio Diesel on the Engine Crankcase Lubricant	14,000
2	Dr.Kapilan N	VGST (2013-17)	Development and Evaluation of Solar and Geo Thermal based Cooling and Refrigeration Systems	30,00,000
3	Dr.Kapilan N	Institute of Engineers (2013-14)	Design and Engineering of a Small Satellite-Cansat	50,000
4	Dr.Kapilan N	VTU (2010-13)	Experimental Study of Storage and Oxidation Stability of Bio Diesel	4,50,000

**b) International Funding Agencies and Grants Received: NIL**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received

Sl.No	Name of the Agency	Funding Amount
1	VTU (2014)	1.8 Lakh
2	VTU(2013)	2 Lakhs

18. Research Centre /facility recognized by the University

<b>Name of the Research Center</b>	<b>Mechanical Engineering Department</b>
University	Visvesvaraya Technological University
Recognition No.	VTU/Aca-Res-Cen/2014-15/2863

19. Publications: paper publication in national/international Journal/conference by faculty

Sl.No	Faculty Name	NC	IC	NJ	IJ	Total
1	Dr.S.G.Gopala Krishna	15	07	11	09	<b>42</b>
2	Dr. N G S Udupa	14	10	-	06	<b>30</b>
3	Dr.Kapilan N	14	10	01	15	<b>38</b>
4	Mr. Venkate Gowda C	14	02	-	-	<b>16</b>
5	Mr. Yogeesh H C	07	01	01	02	<b>11</b>
6	Mr. Jullya Naik L	02	01	-	-	<b>03</b>
7	Mr. Balaji Y S	01	00	00	00	<b>01</b>
8	Mr. R Vara Prasad Kaviti	-	-	-	01	<b>01</b>
9	Mr. Venkatesh B K	-	02	-	02	<b>04</b>
10	Mr. Shashikanth G S	01	-	-	-	<b>01</b>
11	Mr. Manjunath Raju G	01	-	-	-	<b>01</b>
12	Mr. Chethan M R	04	06	01	02	<b>13</b>
13	Ms. Sandya P S	01	-	-	-	<b>01</b>
14	Mr. Amaresh Gunge	02	-	-	01	<b>03</b>

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15	Mr. Mohan Kumar G D	01	-	-	02	<b>03</b>
16	Mr. Ashok Kumar K	04	02	01	00	<b>07</b>
18	Mr. Bandoli Siddeshwara Iresh	01	-	-	-	<b>01</b>
19	Mr. Chethan Kumar N	01	-	-	-	<b>01</b>
20	Mr. Shiva kumar A	01	01	-	-	<b>02</b>
21	Mr. Vijay Kumar M Patil	-	02	-	-	<b>02</b>
22	Mr. Anand Babu K	-	01	-	-	<b>01</b>
23	Mr. Dhanraj P K	-	-	-	01	<b>01</b>

**NC-National Conference, IC-International Conference, NJ-National Journal,**  
**IJ-International Journal**  
**\* PG Dept - ME**

### Books with ISBN / ISSN Numbers:

Sl.No	Text Book Name	Author	ISBN Number
<b>1</b>	Elements of Mechanical Engineering	Dr. R P Reddy Dr. Kapilan N	--
<b>2</b>	Turbo Machines	Dr. M S Govinde Gowda	--
<b>3</b>	Business Marketing	Dr. D. G. Kantharaj Dr. Noor Firdoos Jahan	ISBN: 978-93-83130-88-7

- Books with ISBN/ISSN numbers with details of publishers
- Citation Index
- SNIP
- SJR

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- Impact factor
- h-index

20. Areas of consultancy and income generated: **NIL**

21. Faculty Members in National and International Committees

Sl No	Faculty Name	National Committee	International Committee
1	Dr. S.G. Gopala Krishna	Chairman LIC Committee of VTU	-
2	Dr N Kapilan	ISHRAE	ASHRAE

22. Students projects- In house & Outside the Organization

Sl No.	Academic year	% of students in-house	% of students outside the organization
01	2012-2013	50	50
02	2013-2014	70	30
03	2014-2015	39	61

23. Awards/ Recognitions received by faculty and students :

24. List of eminent academicians and scientists visited to department

1	Shri. Dharmendra Singh, Global Head-Business relationships, Management Mergers& Acquisitions.
2	Dr. Gururaj Karajagi, Chairman, Academy for Creative Teaching.
3	Dr. Sunil Kumar Sharma, Scientist, Ministry of New & Renewable Energy, Government of India.
4	Shri. Anil Dev, CEO, Climaveneta Climate Technologies (P)Ltd.
5	Dr. B. Ashok, Deputy Project Director-AbA, Bangalore.
6	Dr. S Kasturirangan, Prof. CTC, IISc. Bangalore.
7	Dr.D Mohan, Prof& Head, Mech Engg, Govt Engg College.
8	Dr. K E Prakash, Registrar, VTU Belgaum.
9	Shri. M V Raghuram, Director, BAIL.
10	Dr. Maheshappa , Vice Chancellor ,VTU Belgaum.
11	Shri. C.Kalaivanan, Group Director (Rtd), Ministry of Defence.
12	Shri. K G Shrinidhi, Head, ISRO. Bangalore.
13	Shri. Bhaskar Reddy A V, Member-Education & Research, Infosys.
14	Shri. Ramesh Arvind, Actor.
15	Shri. Koti. Music Director, Telugu Film Industry.

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25. List of seminars/conferences/workshops organized & source of funding

Sl No	Year	Seminars/conferences/workshops		Funded by
		National	International	
01	2013-2014	-----	IIETME-June 2014 (1 <sup>st</sup> )	ISHRAE, VTU
02	2013-2014	VTU Empower 10000	-----	VTU
03	2013-2014	Introduction to CFD program	-----	ASHRAE
04	2014-2015	Workshop on CATIA	-----	EDS Technologies, NCET
05	2014-2015	World Environmental Day	-----	KSCST
06	2015-2016	-----	IIETME-Oct 2015(2 <sup>nd</sup> )	ISHRAE, ASHRAE

26. Student profile programme/course wise:

Name of the Course/programme (refer question 24)	Applications received	Selected	Enroll		Pass percentage
			*M	*F	
BE Mech(2011)	65	56	55	1	Passed out
BE Mech (2012)	123	117	116	1	Currently in 8th sem
BE Mech (2013)	108	102	101	1	Currently in 6th sem
BE Mech (2014)	160	154	150	4	Currently in 4th sem

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
BE Mech(2011)	45	55	0
BE Mech (2012)	62	36	2
BE Mech (2013)	68	29	3
BE Mech (2014)	50	50	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense

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services, etc.?

**Two students have cleared GATE.**

### 29. Student progression

Student progression	Against % enrolled
UG to PG	7%
PG to M. Phil.	Nil
PG to Ph.D.	2%
Ph.D. to Post-Doctoral	Nil
<b>Employed</b> <ul style="list-style-type: none"><li>• Campus selection</li><li>• Other than campus recruitment</li></ul>	60% of the eligible students are placed 30%
Entrepreneurship/Self-employment	1%

### 30. Details of Infrastructural facilities

#### a) Department Library books

**Mechanical - 79 nos**

**General - 2 nos**

#### b) Internet facilities for Staff & Students

- **138 PCs in 3 different laboratories with net facility.**
- **Computers in staff rooms are having internet facility.**
- **3 computers in department with net facility.**

#### c) Class rooms with ICT facility:

- **2 LCD projectors**
- **Charts and Models**
- **Cut sections of Engines, Turbines etc**

## d) Laboratories

SI No	Name of the Lab
1.	Mechanical Engineering Foundation
2.	Computer Aided Engineering Drawing
3.	Machine Shop
4.	Foundry and Forging
5.	Metallographic and Material testing lab
6.	Mechanical Measurements and metrology lab
7.	Computer Aided Machine Drawing
8.	Energy Conversion Lab
9.	Fluid Mechanics lab
10.	Heat and Mass Transfer Lab
11.	Computer Aided Modeling and Analysis lab
12.	Computer Integrated Manufacturing and Automation lab
13.	Design Lab
14.	Project Lab

31. Number of students receiving financial assistance from college, university, government or other agencies

Year	No. of students
2011-12	60
2012-13	132
2013-14	80
2014-15	241

32. Details of the student's enrichment programmes with external expert.
  1. CAE Training.
  2. Department is educating the students to be part of industry day to day activities through internship programmed at the National and International Level.
  3. Student soft skill training by HARMONIX
  4. Technical talk and industrial visits by ISHRAE and ASHRAE
  5. Technical talk by KSCST
  6. Technical workshops and seminars in association with professional bodies and industries
33. Teaching methods adopted to improve student learning.
  1. Case study in respective subjects
  2. Discussion forum
  3. Assignments
  4. Expert lectures
  5. Power point presentation (PPT)
  6. Special classes
  7. Internal Assessment
  8. Guest lectures
  9. Student Mentoring and counselling
  10. Industrial visit
  11. Workshops
  12. Seminars
  13. Orientation program
  14. Self study topics
  15. Technical quiz
34. Participation in institutional social responsibility and Extension activity
  - **Blood Donation Camp, Eye Camp and Dental checkup camp.**
  - **Internet Awareness Training to High school students from rural areas around the college.**
  - **Yoga & Meditation classes.**
  - **Plantation of plant saplings**
35. SWOC analysis of the department and future plans

### **Strength of the department**

1. Qualified and experienced faculty members and eager students work as ideal combination for information transmission.
2. Funding of R&D projects from different funding agencies like VTU, VGST, KSCST, IE etc.
3. Well equipped laboratory.
4. Well equipped R&D center where not only our research scholars but outside researchers also come to carry out their work.

5. Virtual lab facility.
6. Participation of students in various programmes/ workshops organized by our institution, other colleges and universities.
7. Excellent infrastructure.
8. MOU with industries.
9. Regular industrial visits

### **Weakness of the department**

1. Students study time is partially reduced due to more transportation time.
2. The faculties need to engage in refreshing courses

### **Opportunities**

1. Internal / External funding for projects
2. Autonomy in curricular development.
3. Interaction with foreign universities
4. Recognition to invention through patents.

### **Challenges**

1. Competitions from other universities and colleges in relation to admission and placement.
2. Training students beyond curriculum.
3. Fluctuating demand in industry.

### **Future plans of the department**

1. Use of software for teaching, learning and evaluation.
2. Expose the students to various programmes at National & International level.
3. Invitations to overseas Professors for sharing their knowledge with our students.
4. Plans for student exchange programmes with Foreign Universities.

\*\*\*\*

## Department of Computer Science & Engineering

1. Name of the department:  
**Computer Science and Engineering.**
2. Year of Establishment:  
**2001-02**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):  
**B.E. (Computer Science & Engineering) – 2001-02**  
**M. Tech (Computer Science & Engineering) – 2013-14**  
**Ph.D. (CSE)**
4. Names of Interdisciplinary courses and the departments/units involved:

Sl. No.	Name of the Department	Semester	Sub. Code	Subject
1	Mathematics	I	12MAT11	Mathematics 1
2	Mathematics	II	12MAT21	Mathematics 2
3	Mathematics	III	12MAT31	Mathematics 3
4	Mathematics	IV	12MAT41	Mathematics 4

5. Annual/ semester/choice based credit system (programme wise):
  - **Choice Based Credit System from the academic year 2015-2016**
  - **Semester scheme for previous academic years**
6. Participation of the department in the courses offered by other departments:

Sl. No	Subject	Year & Semester offered	Name of the Department	Credits / Hours
1	Computer Concepts & C Programming	2011-12, I/II sem	ECE, ISE, Mech, CV	52 hours/week
2	Computer Concepts & C Programming	2012-13, I/II sem	ECE, ISE, Mech, CV	52 hours/week

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3	Computer Concepts & C Programming	2013-14, I/II sem	ECE, ISE, Mech, CV	52 hours/week
4	Computer Concepts & C Programming	2014-15, I/II sem	ECE, ISE, Mech, CV	52 hours/week

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

**Collaborated with ORACLE INDIA PRIVATE LIMITED, where programming courses like JAVA and J2EE will be trained.**

8. Details of courses/programmes discontinued (if any) with reasons:  
**Nil**

9. Number of teaching posts

	Sanctioned	Filled
Professors	3	3
Associate Professors	6	6
Asst. Professors	19	19

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10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)

Sl. No	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1.	Dr. Shanthakumar B. Patil	Ph.D	Prof. & HOD	CSE	20	06
2.	Dr. Y. S. Kumaraswamy	Ph.D	Prof. Dean (R & D)	CSE	30	04
3.	Dr. Premajyoti G. Patil	Ph.D	Professor	Power Electronics & Networks	18	06
4.	Ms. PrabhaNaik	M. Tech	Assc. Prof.	CSE	11.8	-
5.	Mrs. Swathi. S	M. Tech	Assc. Prof.	Networks	11	-
6.	Mr. Gopinath A R	M. Tech	Assc. Prof.	CSE	10.6	-
7.	Mr. Hariharan S	M.S	Assc. Prof.	Software Engineering	10	-
8.	Mrs. Bhagya M	M. Tech	Assc. Prof.	CSE	8	-
9.	Mrs. Manjusha	M. Tech	Assc. Prof.	CSE	9	-
10.	Mrs. Mamatha C.M	<i>M.Tech</i>	Asst. Prof.	<i>CSE</i>	7	-

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11.	Mrs. Ashwini S.S	M. Tech	Asst. Prof.	CSE	7	-
12.	Mr. Sudhakara Reddy M	M. Tech	Asst. Prof.	CSE	5	-
13.	Mr. John. J. P	M. Tech	Asst. Prof.	CSE	6.5	-
14.	Ms. Vidya. V	M. Tech	Asst. Prof.	CSE	5.5	-
15.	Mr. Subramanya. S. G	M. Tech	Asst. Prof.	CSE	5.5	-
16.	Mr. Sunil Kumar. B	M. Tech	Asst. Prof.	CSE	4	-
17.	Mrs. Swetha Vura	M. Tech	Asst. Prof.	ECE	4.5	-
18.	Mrs. Veena S	M. Tech	Asst. Prof.	CSE	5	-
19.	Ms. Sporti S. Pujar	M. Tech	Asst. Prof.	Digital Electronics	2	-
20.	Mrs. Shwetha L	M. Tech	Asst. Prof.	CSE	5	-
21.	Ms. Mala. B. A	B. E (M. Tech)	Asst. Prof.	CSE	5.3	-
22.	Mr. Raghavendra B	M.E	Asst. Prof.	CSE	2.5	-
23.	Mr. Chandrashekhar	M. Tech (Ph. D)	Asst. Prof.	CSE	5	-

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24.	Mr. Bhargava R	M. Tech	Asst. Prof.	CSE	01	-
25.	Mr. Pramoda R	M. Tech	Asst. Prof.	CSE	01	-
26.	Ms. Anusha R	BE (IS),MBA	Asst. Prof.	CSE	0.5	-
27.	Ms. Nayana H	M. Tech	Asst. Prof.	CSE	0.5	-
28.	Ms. Uma Maheswari	M. Tech	Asst. Prof.	CSE	0.5	-

**11. List of senior visiting faculty – 12**

<b>Sl.No</b>	<b>Expert Name</b>
1	Dr. Dinesh
2	Dr. K C Gouda
3	Mr. A B Narendra
4	Mr. Ranganath
5	Mr. Biswajit Pal
6	Mr. H N Madhusudhana
7	Dr. Pallav,
8	Dr. Bhattacharya
9	Dr. Manish Bali
10	Dr. Srihari
11	Ms. Manjunath H R
12	Mr. Nageshwar Rao

**12. Percentage of lectures delivered and practical classes handled  
(Programme wise) by temporary faculty –  
Nil****13. Student -Teacher Ratio (programme wise):**

<b>UG (B.E.,)</b>	<b>15:1</b>
<b>PG (M.Tech.,)</b>	<b>12:1</b>

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14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

<b>Technical support staff (Available)</b>	<b>Administrative staff (Available)</b>
05	01

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG. –  
**Ph.D. – 03**  
**M.Tech – 25**

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

**Nil**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received –

**Nil**

18. Research Centre /facility recognized by the University:

<b>Name of the Research Center</b>	<b>Computer Science and Engineering Department</b>
University	Visvesvaraya Technological University
Recognition No.	VTU/Aca-Res-Cen/2015-16/6726(w)

19. Publications:

Paper publication in national/international Journal/conference by faculty

<b>Sl. No.</b>	<b>Faculty Name</b>	<b>No. of Paper Published</b>				<b>Total</b>
		<b>National Journal</b>	<b>International Journal</b>	<b>National Conference</b>	<b>International Conference</b>	
1	Dr. Shantakumar B. Patil	-	8	6	6	20
2	Dr. Y. S. Kumara Swamy	15	25	15	10	65
3	Dr. Premajyoti G. Patil	-	4	6	6	16

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4	Ms. Prabha . S. Naik	-	-	6	-	06
5	Mrs. Swathi. S	-	-	5	-	05
6	Mr. Gopinath A R	-	1	5	1	07
7	Mrs. Bhagya M	-	-	5	-	05
8	Mrs. Manjusha	-	1	5	-	06
9	Mr. Sudhakara Reddy M	-	1	4	-	05
10	Mr. John. J. P	-	7	10	5	22
11	Ms. Vidya. V	-	-	2	-	02
12	Mr. Subramanya. S. G	-	-	2	-	02
13	Mr. Sunil Kumar. B	0	1	3	0	04
14	Mrs Swetha Vura	1	3	2	2	08
15	Ms. Sporthi Pujar	-	1	1	1	03
16	Mrs. Shwetha L	-	-	3	1	04
17	Ms. Mala. B. A	-	1	-	4	05
18	Mr. Chandrashekhar .P C	-	-	1	1	02
19	Mr. Bhargava R	1	1	4	1	07
20	Mr. Pramoda R	1	1	4	1	07
<b>Total</b>		<b>18</b>	<b>55</b>	<b>89</b>	<b>39</b>	<b>201</b>

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- Number of papers published in peer reviewed journals (national /international) by faculty and students: **73**
- Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): **Nil**
- Monographs: **11**
- Chapter in Books: **Nil**
- Books Edited: **Nil**
- Books with ISBN/ISSN numbers with details of publishers : **Nil**
- Citation Index : **Nil**
- SNIP : **Nil**
- SJR : **Nil**
- Impact factor : **Nil**
- h-index : **Nil**

20. Areas of consultancy and income generated –  
**Nil**

21. Faculty as members in  
a) National committees  
b) International Committees  
c) Editorial Boards....

Sl. No.	Name of the Faculty	National committees	International Committees	Editorial Boards
1.	Dr. Shantakumar B Patil	---	√	<b>IRP Publication</b>
2.	Dr. Y. S. Kumara Swamy	---	√	<b>ELSVIER</b>
3.	Dr. Y. S. Kumara Swamy	---	√	<b>IGNOU</b>
4.	Dr. Shantakumar B Patil	---	√	<b>IJATER</b>
5.	Dr. Shantakumar B Patil	---	√	<b>Reviewers - ISTP</b>

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### 22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme – **80%**
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies – **20%**

### 23. Awards / Recognitions received by faculty and students:

Sl. No	Name	Designation	Award	Conference
1	Dr. Shantakumar B Patil	Professor	Best Paper	International Conference on Information Technology & Computer Science Pattaya, Thailand.
2	Dr. Shantakumar B Patil	Professor	Best Paper	International Conference on Networking and Computer Application Kuala Lumpur, Malaysia
3	Dr. Shantakumar B Patil	Professor	Best Paper	International Conference on Recent Advances in Science & Engineering , Bangalore
4	Dr. Premjyoti G. Patil	Professor	Best Paper	International Conference on Information Technology & Computer Science Pattaya, Thailand.

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5	Dr. Premjyoti G. Patil	Professor	Best Paper	International Conference on Networking and Computer Application Kuala Lumpur, Malaysia
6	Dr. Premjyoti G. Patil	Professor	Best Paper	International Conference on Recent Advances in Science & Engineering , Bangalore
7	Mr. Gopinath R	Asst. Professor	Best Paper	International Conference on Networking and Computer Application Kuala Lumpur, Malaysia
8	Mr. Pramoda R	Asst. Professor	Best Paper	International Conference on Recent Advances in Science & Engineering , Bangalore
9	Mr. Suyash Sorte	Student	Best Paper	International Conference on Information Technology & Computer Science Pattaya, Thailand.
10	Mr. Bhargav S	Student (M. Tech)	Best Paper	Won a prize at accenture project contest and got placed at same

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11	Mr. Bhargava R	Asst. Professor	Best Paper	International Conference on Recent Advances in Science & Engineering , Bangalore
12	Ms. Sandhya	Stdudent (M. Tech)	Best Paper	National Conference on Prerana 2K15, GITAM University, Bangalore.
13	Mrs. Geeta	Stdudent (M. Tech)	Best Paper	National Conference on Prerana 2K15, GITAM University, Bangalore.
14	Ms. Neha Sharma	Student	Best Paper	International Conference on Information Technology & Computer Science Pattaya, Thailand.

24. List of eminent academicians and scientists / visitors to the department

Sl. No	Name	Designation	Organization
1.	Dr. Dinesh	Professor	IISc, Bengaluru
2.	Dr. K C Gouda	Scientist G	CMAACS, NAL
3.	Mr. A B Narendra	C.E.O	Datataalk
4.	Mr. Ranganath	MD	EI Technology

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5.	Mr. Biswajit Pal	Research Scholar	VTU
6.	Mr. H N Madhusudhana	Budget Director	ISRO
7.	Dr. Pallav,	Prof & Head	SSSIH, Putabharti
8.	Dr. Bhattacharya	Deputy Director	Lenovo, Bangalore
9.	Dr. Manish Bali	Director	NVIDIA, Bangalore
10.	Dr. Srihari	Managing Director	NOVEL, Bangalore
11.	Ms. Manjunath H R		Datalifecycle Company,  Bangalore
12.	Mr. Nageshwar Rao	Network Support Engineer	Network support Engineer, F5 Network Inc (UK)

25. Seminars/ Conferences/Workshops organized & the source of funding

- a) National
- b) International

Sl. No.	Name of the Conference etc. organized	Date & Month	source of funding
1	5 days workshop on Electronic Circuits	28/07/2014 to 02/08/2014	NCET
2	5 days workshop on Formal Languages And Automata Theory	28/07/2014 to 02/08/2014	NCET
3	5 days workshop on Java & J2EE	28/07/2014 to 02/08/2014	NCET
4	5 days workshop on	27/01/2014 to	NCET

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	Microprocessor	01/02/2014	
5	National Conference – Emerging Trend in Computer Science & Engineering	24th & 25th April 2015	NCET
6	National conference on Emerging Trends in Technology	26 <sup>th</sup> & 27 <sup>th</sup> April 2012	NCET

26. Student profile programme/course wise:

B.E. (Computer Science & Engineering)

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
CSE (2011-12)	98	91	63	28	99
CSE (2012-13)	93	87	57	30	Currently 7 <sup>th</sup> sem
CSE (2013-14)	115	111	61	50	Currently 5 <sup>th</sup> sem
CSE (2014-15)	102	94	45	49	Currently 3 <sup>rd</sup> sem

M.Tech (Computer Science & Engineering)

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
CS&E (2013-14)	25	18	6	12	100%
CS&E (2014-15)	15	11	00	11	Currently in 3 <sup>rd</sup> sem

\*M = Male \*F = Female

## 27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
CSE (2011-12)	33	57	10
CSE (2012-13)	42	42	16
CSE (2013-14)	50	44	6
CSE (2014-15)	52	39	9

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?: **10 Students have cleared gate examinations.**

## 29. Student progression

Student progression	Against % enrolled
UG to PG	10%
PG to M.Phil.	NA
PG to Ph.D.	Nil
Ph.D. to Post-Doctoral	Nil
<b>Employed</b> <ul style="list-style-type: none"> <li>• Campus selection</li> <li>• Other than campus recruitment</li> </ul>	60% of the eligible students are placed  35%
Entrepreneurship/Self-employment	10%

## 30. Details of Infrastructural facilities

### a) Department Library books

**No. of titles: 40**

**No.of Volumes: 206**

b) Internet facilities for Staff & Students: **Internet with 45 Mbps speed for all the students and faculty**

c) Class rooms with ICT facility:

- **Department has 1 LCD Projector.**
- **Charts**
- **Virtual Lab facility**

d) Laboratories : 8

Sl No	Lab
1	Projector Lab
2	Internet Lab
3	Network Lab
4	Web Lab
5	SS Lab
6	EC Lab
7	CCP Lab
8	ADA Lab

31. Number of students receiving financial assistance from college, university, government or other agencies –

Year	No. of students
2011-12	
2012-13	
2013-14	
2014-15	

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

1. Department is educating the students to be part of industry day to day activities through internship programmed at the National and International Level.
2. Student soft skill training by HARMONIX
3. Technical talk by eminent speakers.

4. Industrial visits.
  5. Technical workshops and seminars in association with professional bodies and industries
  6. Encouraging students to write technical papers based on their project work and present it in conferences.
33. Teaching methods adopted to improve student learning :
- Case study in respective subjects
  - Discussion forum
  - Assignments
  - Expert lectures
  - Power point presentation (PPT)
  - Special classes
  - Internal Assessment
  - Guest lectures
  - Student Mentoring and counselling
  - Industrial visit
  - Workshops
  - Seminars
  - Orientation program
34. Participation in Institutional Social Responsibility (ISR) and Extension activities –
- **Blood Donation Camp, Eye Camp and Dental checkup camp.**
  - **Internet Awareness Training to High school students from rural areas around the college.**
  - **Yoga & Meditation classes.**
35. SWOC analysis of the department and Future plans :

### STRENGTH

- Highly qualified and motivated faculties having expertise in their area of specialization.
- Teamwork with inbuilt confidence in faculty.
- Excellent infrastructural facility.
- Good research activities in the department which has resulted in large number of publications in journal and conferences.
- Good mentors for slow learners and activate students up to the mark.

### WEAKNESS

- Long distance from the city, hence students spend more time in commuting.

### OPPORTUNITY

5. Internal / External funding for projects
6. Autonomy in curricular development.
7. Interaction with foreign universities
8. Recognition to invention through patents.

### CHALLENGES

1. New Engineering colleges and universities are coming up in Bangalore which poses a challenge to admission and placement.
2. Training students beyond curriculum.
3. Fluctuating demand in industry.

### Future plan-

- To start a Research Center.
- Student exchange programmes with foreign industries.
- Use of software for teaching, learning and evaluation.

ED Cell - The department plans to develop an ED Cell into a functional unit with proper structure

\*\*\*

## Department of Information Science & Engineering

1. Name of the department:  
**Information science & engineering**
2. Year of Establishment:  
**2001-02**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):  
**UG: B.E. in Information Science & Engineering**
4. Names of Interdisciplinary courses and the departments/units involved

Sl. No.	Name Of The Department	Semester	Sub. Code	Subject
1	Mathematics	I	12MAT11	Mathematics 1
2	Mathematics	II	12MAT21	Mathematics 2
3	Mathematics	III	12MAT31	Mathematics 3
4	Mathematics	IV	12MAT41	Mathematics 4

5. Annual/ semester/choice based credit system (programme wise):
  - **Choice Based Credit System from the academic year 2015-2016**
  - **Semester scheme for previous academic years**
6. Participation of the department in the courses offered by other departments:

Sl. No	Subject	Year & Semester offered	Name of the Department	Credits / Hours
1	Computer Concepts and C Programming	2014-15, I/II sem	Mechanical Engg.	4 hrs/week
2	Computer Concepts and C Programming	2014-15, I/II sem	Civil Engg.	4 hrs/week
3	Computer Concepts and C Programming	2013-14, I/II sem	ECE	4 hrs/week

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4	Computer Concepts and C Programming	2013-14, I/II sem	Mechanical Engg.	4 hrs/week
5	Computer Concepts and C Programming	2011-12, I/II sem	Mechanical Engg.	4 hrs/week
6	Computer Concepts and C Programming	2011-12, I/II sem	Civil Engg.	4 hrs/week
7	Constitution of India and Professional Ethics	2014-15, I/II sem	Civil Engg.	2 hrs/week

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

**Nil**

8. Details of courses/programmes discontinued (if any) with reasons:

**Nil**

9. Number of teaching posts:

	<b>Sanctioned</b>	<b>Filled</b>
Professors	01	03
Associate Professors	03	01
Asst. Professors	08	08

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10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt./ Ph.D. / M.Phil. etc.,)

Sl. No	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1	Prof. B. Roopashri Tantri	M.Tech, (Ph.D.)	Professor & Head	Systems Analysis and Computer Applications	22	Nil
2	Dr. Shivanand Handigund	Ph. D.	Professor	Computer Science	39	5
3	Dr. Gururaj M.	Ph. D.	Professor	Information Technology	15	Nil
4	Mr. Kishore P.J.	M. Tech	Asst. Professor	Systems Analysis and Computer Applications	14	Nil
5	Mr. Ashok S Patil	M.Tech	Asst. Professor	Computer Network Engineering	10	Nil

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6	Mrs. Shanmugapriya R	M.Tech	Asst. Professor	Computer Network Engineering	10	Nil
7	Mrs. Sushmitha .N.S	M.Tech	Asst. Professor	Computer Science & Engineering	7	Nil
8	Mr. Mohan D. N.	M. Tech	Asst. Professor	Computer Science & Engineering	5	Nil
9	Mrs. Nagalakshmi S. R.	M. Tech	Asst. Professor	Computer Science & Engineering	1	Nil
10	Ms. Geetha M.	M. Tech	Asst. Professor	Computer Science & Engineering	2	Nil
11	Mrs. Rajani K.C.	M. Tech	Asst. Professor	Computer Science & Engineering	3	Nil
12	Mrs. Kavitha Rani	M. Tech	Asst. Professor	Computer Science & Engineering	3	Nil

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11. List of senior visiting faculty:

**Nil**

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

**Nil**

13. Student -Teacher Ratio (programme wise):

**12:1**

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Technical support staff (Available)	Administrative staff (Available)
03	00

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.:

**Ph.D. - 02**

**P.G - 10**

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

**Nil**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

**Project funded by KSCST, total grants received –Rs 4,000/-**

18. Research Centre /facility recognized by the University:

**Nil**

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### 19. Publications:

#### a) Publication per faculty:

Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1.	B. Roopashri Tantri	-	3	3	4	10
2.	Dr. Shivanand M. Handigund	5	12	03	14	34
3.	Dr .Gururaj M	-	2	2	-	04
4.	Mrs. Mamatha C.M	-	5	8	3	16
5.	Mrs. Rajini K. C.	-	1	-	1	02
6.	Mr.Mohan D.N	-	-	1	-	01
<b>Total</b>		<b>5</b>	<b>24</b>	<b>14</b>	<b>22</b>	<b>65</b>

- Number of papers published in peer reviewed journals (national /international) by faculty and students: **29**
- Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.): **NIL**
- Monographs: **11**
- Chapter in Books: **1**
- Books Edited: **Nil**
- Books with ISBN/ISSN numbers with details of publishers: **4**
- Citation Index: **Nil**
- SNIP: **Nil**
- SJR: **Nil**
- Impact factor: **Nil**
- h-index: **Nil**

20. Areas of consultancy and income generated:  
**Nil**

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards

Sl no	Faculty Name	National committees	International Committees	Editorial Boards
1.	B Roopashri Tantri	----	01	---
2.	Dr . Shivanand Handigund	03	----	02

### 22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme:  
**90%**
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies:  
**10%**

### 23. Awards / Recognitions received by faculty and students:

#### **B ROOPASHRI TANTRI –**

- Chaired a session in international conference on software & information engineering held at Nanyang technological university , Singapore during 01-02, May, 2014.
- Technical committee member for ICSIE 2015 at Dubai on 4<sup>th</sup> & 5<sup>th</sup>, May 2015.
- Chaired a session in National technical Symposium held at Githam University, Dodaballapur , 25<sup>th</sup> -28<sup>th</sup>, March ,2015.
- First rank with Gold Medal in M.Sc. (Statistics) university examination.

#### **DR .SHIVANAND –**

- Member of various Local Inquiry Committees, Doctoral committee and research grant committee of Visvesvaraya Technological University (VTU), Belgaum

- Vision Group of Science and Technology, Government of Karnataka has awarded 20,00,000/- (rupees twenty lakhs) for the research project entitled “ Design and Development of Software Project Management Toole and Techniques”.
- Ph.D. referee, Shivaji University, Kolhapur
- IEEE and ACM International Conferences Technical papers reviewer.
- Chaired paper presentation session at 3<sup>rd</sup> National Conference “CSECONF-2014” on current trends in computer science & Engineering held on 14<sup>th</sup> June 2014 in Jain university, Bangalore,
- Chaired paper presentation session at Advanced International Conference on Networking and Security, National Institute of Technology, Surathkal, Mangalore, India, December 16-18, 2011.
- Chaired paper presentation session at 2<sup>nd</sup> international conference on advanced computing, networking and security, December 15th - 17th, 2013 at NITK SURATHKAL, India.
- Chaired couple of paper presentation sessions at International conference of Soft Computing and Software Engineering [SCSE'15] to be held at University of California, Berkeley USA during March 5-6 2015.

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24. List of eminent academicians and scientists / visitors to the department:

Sl. No.	Speakers
1	Mr . Manjunath Director &CEO, Data life cycle company
2	Mr. Ansari
3	Mr. Shiva Pahwa
4	Mr. Shivendra Jha , Software Engineer , Cisco
5	Dr. S .N Chandrashekar, HOD ,CSE ,SJCIT
6	Dr. Gururaj Karajagi, Chairman, Academy for Creative Teaching.
7	Dr. K E Prakash, Registrar, VTU Belgaum.
8	Dr. Maheshappa , Vice Chancellor ,VTU Belgaum.
9	Shri. Ramesh Arvind, Actor.
10	Shri. Koti. Music Director, Telugu Film Industry.
11	Shri. Andrew Robb, Minister for Trade and Investment, Australia.
12	Dr. P J Raju, Director, APSSRDI, Hindupur.
13	Shri. Abhijith Sreenivas, Senior Program Manager, EMC <sup>2</sup> , Bangalore.
14	Shri. M N Madhusudhan, ISRO, Bangalore.
15	Shri. Bhaskar Reddy A V, Member-Education & Research, Infosys.
16	Dr. S Ramesh Babu, Scientist, World record holder, Bangalore.
17	Shri. Arjun Devaiah, Founder Abhimanyu Academy.

25. Seminars/ Conferences/Workshops organized & the source of funding

a) **National:**

**Conferences: 01**

**Workshops: 04**

**Source of funding – Registration fee, Contribution from the**

**Management.**

b) International: **Nil**

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
B.E. - ISE(2011-12)	68	56	40	16	100%

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B.E. - ISE (2012-13)	45	32	12	20	Currently in 7 <sup>th</sup> sem
B.E. - ISE (2013-14)	50	36	17	19	Currently in 5 <sup>th</sup> sem
B.E. - ISE (2014-15)	62	54	26	28	Currently in 3 <sup>rd</sup> sem

\*M = Male \*F = Female

### 27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B.E. - ISE (2011-12)	48%	34%	18%
B.E. - ISE (2012-13)	66%	16%	18%
B.E. - ISE (2013-14)	72%	16%	12%
B.E. - ISE (2014-15)	63%	13%	24%

28. How many students have cleared national and state competitive examinations

such as NET, SLET, GATE, Civil services, Defense services, etc.?:

- **1 student has cleared UPSC civil service examination IAS, and secured 63<sup>rd</sup> rank at all India level.**
- **5 students have cleared GATE/GRE examination.**
- **3 students have cleared Merchant Navy examination and have been selected.**

29. Student progression

Student progression	Against % enrolled
UG to PG	18%
PG to M.Phil.	Nil
PG to Ph.D.	Nil
Ph.D. to Post-Doctoral	Nil
<b>Employed</b> <ul style="list-style-type: none"> <li>• Campus selection</li> <li>• Other than campus recruitment</li> </ul>	60% of the eligible students are placed  35%
Entrepreneurship/Self-employment	10%

30. Details of Infrastructural facilities

a) Department Library books

**Number of titles – 20**

**Number of books – 40**

b) Internet facilities for Staff & Students

- All laboratories are provided with internet facility.
- Computer in HODs room, staff room are having internet facility:
- Name of the Internet Provider : **Tata Tele**
- Available Bandwidth / Access speed: **45 Mbps**
- Institute's own e-mail facility of faculty / students: **Yes**
- Available Security / privacy to e-mail/ Internet users: **Yes .**

c) Class rooms with ICT facility

- All Class rooms have dual desks, Green boards, Table & chair for teacher, fans, and tube lights
- Department has 1 LCD Projector.

d) Laboratories :

Sl No	Lab
1	Projector Lab
2	Internet Lab
3	Network Lab
4	Web Lab
5	SS Lab
6	EC Lab
7	CCP Lab
8	ADA Lab

31. Number of students receiving financial assistance from college, university, government or other agencies:

Year	No. of students
2011-12	20
2012-13	20
2013-14	09
2014-15	60

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts :

- Department is educating the students to be part of industry day to day activities through internship programmed at the National and International Level.
- Student soft skill training by HARMONIX
- Technical talk by eminent speakers.
- Industrial visits.

- Technical workshops and seminars in association with professional bodies and industries
- Encouraging students to write technical papers based on their project work and present it in conferences.

### 33. Teaching methods adopted to improve student learning

- Case study in respective subjects
- Discussion forum
- Assignments
- Expert lectures
- Power point presentation (PPT)
- Special classes
- Internal Assessment
- Guest lectures
- Student Mentoring and counselling
- Industrial visit
- Workshops
- Seminars
- Orientation program
- Self study topics
- Technical quiz

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

- **Contribution to NGO (Living Hope Children's Home)**
- **Blood Donation Camp, Eye Camp and Dental checkup camp.**
- **Internet Awareness Training to High school students from rural areas around the college.**
- **Yoga & Meditation classes.**

35. SWOC analysis of the department and Future plans:

**Strength:**

1. Experienced, well qualified and dedicated faculty.
2. Good faculty retention.
3. Good environment to work.
4. Virtual lab facility.
5. Participation of students in various programmes/ workshops organized by our institution, other colleges and universities.
6. Excellent infrastructure.

**Weakness:**

Long distance from the city, hence students spend more time in commuting

**Opportunity:**

1. Research opportunities in specialized areas.
2. External funding opportunities.
3. Collaboration with institutes of higher learning, research centers and NGOs.

**Challenge:**

1. New Engineering colleges and universities are coming up in Bangalore which poses a challenge to admission and placement.
2. Training students beyond curriculum.
3. Fluctuating demand in industry.

**Future plan-**

- To start a Research Center.
- Student exchange programmes with foreign industries.
- Use of software for teaching, learning and evaluation.
- ED Cell - The department plans to develop an ED Cell into a functional unit with proper structure.

\*\*\*\*\*

## Department of Electronics & Communication Engineering

1. Name of the department:  
**Electronics & Communication Engineering**
2. Year of Establishment:  
**B.E. (ECE) - 2001-02**  
**M.Tech (VLSI Design & Embedded Systems) – 2014-15**
3. Names of Programmes / Courses offered:  
**UG – B.E in Electronics & Communication Engineering**  
**PG – M.Tech in VLSI Design & Embedded Systems**  
**Ph.D**
4. Names of Interdisciplinary courses and the departments/units involved

Sl. No.	Semester	Title	Teaching Dept.
1	I	Engg. Mathematics-I	Mathematics
2	II	Engg. Mathematics-II	Mathematics
3	III	Engg. Mathematics-III	Mathematics
4	IV	Engg. Mathematics-IV	Mathematics
5	V	Management & Entrepreneurship	MBA

5. Annual/ semester/choice based credit system (programme wise):
  - **Choice Based Credit System from the academic year 2015-2016**
  - **Semester scheme for previous academic years**

## Self Study Report - 2015

6. Participation of the department in the courses offered by other departments:

Sl. No	Subject	Year & Semester offered	Name of the Department	Credits / Hours
1	Basic Electronics	2011-12, I/II sem	CSE, ISE, Mech, CV	52 hours/week
2	Basic Electronics	2012-13, I/II sem	CSE, ISE, Mech, CV	52 hours/week
3	Basic Electronics	2013-14, I/II sem	CSE, ISE, Mech, CV	52 hours/week
4	Basic Electronics	2014-15, I/II sem	CSE, ISE, Mech, CV	52 hours/week
5	Basic Electrical Engineering	2014-15, I/II sem	CSE, ISE, Mech, CV	52 hours/week
6	Basic Electrical Engineering	2014-15, I/II sem	CSE, ISE, Mech, CV	52 hours/week
7	Basic Electrical Engineering	2014-15, I/II sem	CSE, ISE, Mech, CV	52 hours/week
8	Basic Electrical Engineering	2014-15, I/II sem	CSE, ISE, Mech, CV	52 hours/week

7. Courses in collaboration with other universities, industries, foreign institutions, etc. : **Nil**
8. Details of courses/programmes discontinued (if any) with reasons:  
**M.Tech (VLSI Design & Embedded Systems) programme in 2<sup>nd</sup> shift was closed in 2014**  
**Reason: Institution wanted to have only general shift programmes.**  
**The same programmes are available in general shift**

9. Number of teaching posts

	<b>Sanctioned (As per AICTE norms)</b>	<b>Filled</b>
Professors	3	3
Associate Professors	7	7
Selection Grade/ Asst. Professors	21	21

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10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./ B. E/ M. Tech/ M. Phil./ Ph.D. etc.,)

Sl. No	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1.	Dr. Jayadeva. G. S	Ph.D	Prof & Head	Semiconductor Device Modeling	24	3 - Registered
2	Dr. Geetha Prakash	M. Tech Ph.D	Professor	Communication Systems	24	--
3	Mr. Nagesh. K. N	M. Tech (Ph.D)	Professor	Electronics	8	--
4	Mr. Venkatesh Kumar H	M.Tech (Ph.D)	Assc. Prof	Electronics	16	--
5	Mr. Basavaraj. G. M	M.Tech(Ph.D)	Assc. Prof	Electronics	16	--
6	Mrs. Bhavya. V	M.Tech	Assc. Prof	Computer Network	9.5	--

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				Engineering		
7	Mrs. Sendamarai . P	M.Tech(Ph.D)	Assc. Prof	Applied Electronics	15	--
8	Mr.Satish M.N.	M.Tech(Ph.D)	Assc. Prof	VLSI, Communication Systems	08	--
9	Mrs. Roopa. G	M.Tech	Assc. Prof	Power Electronics	7	--
10	Mr. Rohith. S	M.Tech(Ph.D)	Assc. Prof	VLSI Design & Embedded Systems	7	--
11	Mrs. Rekha. K	M.Tech	Asst. Prof	Digital Communication & Networking	7.6	--
12	Mrs. Ashwini. S	M.Tech	Asst. Prof	Digital Communication & Networking	5	--
13	Mr. Satheesha T. Y	M.Tech(Ph.D)	Asst. Prof	Electronics	5.5	--

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14	Mrs. Nandini Sharma. A	M. Tech	Asst. Prof	Electronics	5.5	--
15	Mr. Nanda Kishore. C. V	M.Tech	Asst. Prof	Communication System	5	--
16	Mr. Upadhya Anath	M.Tech	Asst. Prof	Digital Communication	3	--
17	Mr. Kasetty Ram Babu	M.Tech	Asst. Prof	VLSI Design & Embedded Systems	4	--
18	Mrs. Shwetha. P. T	M.Tech	Asst. Prof	VLSI Design & Embedded Systems	6	--
19	Mr. Yaseen Basha	M.Tech	Asst. Prof	VLSI Design & Embedded Systems	3	--
20	Mrs. Geetha Lakshmi S. N	M.Tech	Asst. Prof	Electronics	5	--
21	Mrs. Padmavathi. M	M.Tech	Asst. Prof	Digital Communication & Networking	4.6	--

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22	Mr. Mahesh M. R	M.Tech	Asst. Prof	Electronics	2	--
23	Ms. Usha. K. S	M.Tech	Asst. Prof	VLSI Design & Embedded Systems	1.6	--
24	Mrs. Aruna. M	M.Tech	Asst. Prof	VLSI Design & Embedded Systems	6	--
25	Ms. Shwetha. B. M	M.Tech	Asst. Prof	Industrial Electronics	3.6	--
26	Mrs. Vinutha. M	M.Tech	Asst. Prof	Digital Electronics & Communication System	0.5	--
27	Mr. Ashoka. C. D	M.Tech	Asst. Prof	Digital Electronics & Advanced Communication	0.5	--
28	Mr. Sunil Kumar. B. S	M.Tech	Asst. Prof	VLSI Design & Embedded Systems	0.5	--

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29	Mr. Rajath. C. E	M. Tech	Asst. Prof	Biomedical Engg.	0.5	--
30	Ms.Poornima K M	M. Tech	Asst. Prof	VLSI Design & Embedded Systems	0.5	--
31	Ms. Geethanjali S	M. Tech	Asst. Prof	VLSI Design & Embedded Systems	0.5	--

## Self Study Report - 2015

11. List of senior visiting faculty: **Nil**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty :  
**This Department has no temporary faculty. All the faculty members are permanent.**
13. Student -Teacher Ratio (programme wise) :  
 UG: Electronics & Communication Engineering –STR - **15:1**  
 PG: VLSI Design & Embedded Systems -STR - **12:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:  
**Support Staff (Technical) and Administrative Staff Sanctioned/required: 22**  
**Support Staff (Technical) and Administrative Staff Filled: 10**
15. Qualifications of teaching faculty with (D.Sc./D.Litt. / B. E/ M. Tech/ M. Phil./ Ph.D. etc.,):  
**Ph. D – 02**  
**M.Tech – 29**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:  
 05 faculty - e-Yanta from IIT-Bombay  
 02 faculty - STUDSAT-2)

Duration	Sponsoring Organization	Title of Project	Amount of Grant	Co-Investigators (if any) / Guide
*Three Years	Seven participating colleges, ISRO and sponsoring agencies	STUDSAT-2 Student Satellite programme	Estimated cost 1.6 Crores	Mr H Venkatesh Kumar Assoc.Prof is incharge & HOD is supervising
**			Components supplied by Texas Instruments	Dr. G. S. Jayadeva

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***	IIT Bombay	e-Yantra competition	Line robot given to students for executing the work assigned & is returned to college after the competition is over.	Dr. G. S. Jayadeva Mr. Basavaraj. G. M Mrs. Aruna. M Mr. Kashetty Ram babu Mr. Siddeshwar Iresh Bandoli ( Mech. Dept.)
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\* Our college is one of the seven participating institute in STUDSAT-2 project. STUDSAT -2 is a student satellite project. Undertaken to build and launch satellites in association with ISRO to demonstrate inter-satellite communication. The total estimated cost of the project is Rs.1.6 Crores. The duration of the project is for three years and is extendable till completion. Seven student projects is carried out by our department so far.

1. Design of Narrow band pass filter for downlink module of nano-satellites
2. Design of Monopole Transmit Antenna for Downlink Module of Nano-Satellite
3. Design a code for the encoding & decoding of the data by a terminal node controller and its simulation for a small signal spacecraft
4. Software defined GPS Receivers
5. Design, simulation and placement of Antenna On-Board Nano Satellites
6. Design and Implementation of Communication Links For Satellite Studsat-2
7. Design, simulation and Fabrication of microstrip patch Antenna

\*\* Project entitled “Efficient electronics Stethoscope” got selected for Texas Instruments Innovation Challenge India Analog Design Contest 2014, under my mentorship. Carried out by our students Mr. Vishwanathan M. H., III Sem (ECE) and Ms. Vaishnavi T. G., III Sem ( ECE)

\*\*\* IIT Bombay under e- Yantra (project sponsored by MHRD, Government of India, under the National Mission on Education through ICT (NMEICT) conducts nationwide student competition, since FOUR Years. One student team under my guidance secured 3<sup>rd</sup> prize in the “e-Yantra Robotics Competition-2014 held on March 27<sup>th</sup> – 28<sup>th</sup>, 2015 at IIT Bombay”.

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17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

### Research activities

**Subject** : VTU research grant  
**Title of the Research Project** : “Low Power Model Predictive Control IP Core for system on chip Solutions”  
**Proposal** : VTU/Aca/2009-2010/A-9/163  
dated 07/04/2010  
**Acceptance** : VTU/Aca/2010-2011/A-9/11372  
dated 07/12/2010  
**Principal Investigator** : Dr. K.N. Hari Bhat , Professor  
**Co-investigator** : Mr. Sudheendra Kumar/ Dr. G.S. Jayadeva,  
**Grant Sanctioned (in Lakhs)** : 5.00  
**DD No.** : 584081  
**Dated on** : 24/01/2011  
**Amount (in Lakhs)** : 4.25

18. Research Centre /facility recognized by the University:

<b>Name of the Research Center</b>	<b>Electronics and Comm. Engineering Department</b>
University	Visvesvaraya Technological University
Recognition No.	VTU/Aca-Res-Cen/2014-15/2863

19. Publications:  
Publications details from 2011-12 to 2014-15

Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1	Dr. G. S. Jayadeva	-	01	-	04	05
2	Mr. H. Venkatesh Kumar	-	04	03	01	08

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3	Mr. Basavaraj.G.M	-	-	02	01	03
4	Mrs. Sendamarai.P	-	01	-	-	01
5	Mr.Rohith.S	-	08	02	06	16
6	Ms. Rekha K	-	-	02	-	02
7	Ms. Ashwini.S	-	-	01	-	01
8	Ms. Nandini Sharma.A	-	-	-	01	01
9	Mr. T.Y. Satheesha	-	07	03	04	14
10	Mr. C.V. Nanda Kishore	-	02	02	-	04
11	Mr. Kasetty Ram Babu	-	02	01	-	03
12	Mr. Yaseen Basha	-	-	02	-	02
13	Mr. Mahesh. M. R	-	02	-	01	03
14	Ms. Usha. K. S	-	-	01	-	01
15	Mr. Sunil Kumar. B. S	-	-	01	-	01
<b>Total</b>		-	<b>27</b>	<b>20</b>	<b>18</b>	<b>65</b>

### Student's publications

- Vijayaraghavan.S, Vijayalakshmi & Swathi.V presented a paper entitled “ **Ultra sensor animal safety system**”, in IEEE International conference on recent advances and innovations in Engineering(ICRAIE-2014), held on May 09<sup>th</sup> to 11<sup>th</sup>, 2014 at Jaipur India.
- The student of 4<sup>th</sup> sem E&C, is runners up in Electric Quotient (EQ), IEEE competition, held at M.S College of Engineering Bangalore on 24<sup>th</sup> April 2014.
- Mr. Hemanth . L (1NC10EC030), Mr. Mani. P (1NC09EC037) & Mr. Ravi Tej (1NC09EC079) Published paper in international journal of engineering research title “ holographic visuals involving automation” , ISSN No.2319-6890,vol no 4, issue no..Special ,pp 21-25,22 march 2014.
- Ms. Shilpa. K (1NC11EC048) & Mr. Vishwanathan (1NC12EC105) presented in 2<sup>nd</sup> International conference on Networks information and communication- 2015 **from 2014 18<sup>th</sup> to 20<sup>th</sup> May** 2015 at SVCE, Bangalore. Titled on “ Image Processing for Early Lung Cancer Detection”. Also Published in **Springer Publications Proceedings**.
- Mr. Vinay G, Mr. Sri Vatsa G.N, Ms. Divya Shankar,presented in 64th International Astronautical Congress, Beijing, China on” DESIGN OF ONBOARD COMMUNICATION SYSTEM FOR THE NANO-SATELLITE STUDSAT-2A/2B”,IAC-13-B2.4.5,2013

### ○ Monographs - 05

#### Lab Manuals – Odd semester

Lab manuals are printed, Updated regularly and supplied to students.

Branch and year	Name of the Laboratory	Lab Manual Prepared by (Printed- not published)
II Year III Sem	Analog Electronics Lab	Mrs. Bhavya. V
II Year III Sem	Logic Design Lab	
III Year V Sem	Digital Signal Processing Lab	

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III Year V Sem	Analog Communication + LIC lab	Mr. H. Venkatesh Kumar
IV Year VII Sem	VLSI Lab	
IV Year VII Sem	Power Electronics Lab	Mrs. Roopa. G

### Lab Manuals – Even semester

Lab manuals are printed, Updated regularly and supplied to students.

Branch and year	Name of the Laboratory	Lab Manual Prepared by  (Printed- not published)
II Year IV Sem	Microcontroller Lab	
II Year IV Sem	HDL Lab	Mrs. Sendamari. P
III Year VI Sem	Advanced Communication Lab	Mr. H. Venkatesh Kumar
III Year VI Sem	Microprocessors Lab	

- Chapter in Books – Nil
- Books Edited - Nil
- Books with ISBN/ISSN numbers with details of publishers
- Citation Index
- SNIP - Nil
- SJR
- Impact factor
- h-index

20. Areas of consultancy and income generated: **Nil**

21. Faculty as members in

- a) National committees   b) International Committees   c) Editorial Boards...

-----NIL-----

### 22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme – **88%**
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies – **12%**

### 23. Awards / Recognitions received by faculty and students

#### Student Achievements:

Students of VIII Sem EC are selected for E Yantra project sponsored by MHRD, conducted by IIT Bombay, Mumbai

Sl. No.	Name of the student	Recognition Name	Date of Recognition	Place of Recognition
1	Mr.Chandrakanth.S	E Yantra project sponsored by MHRD, conducted by IIT, Bombay	14/11/2014	IIT, Bombay
2	Mr.Karthik.S.V			
3	Mr.Basavaraj.C.S			
4	Mr.Vyshak.U.V			
5	Mr.Pavan Attavane			
6	Mr.Rama Kumar.K.S			
7	Mr.Santhosh Rao Jadav.S			
8	Rajath.R			

e-Yantra is a project sponsored by MHRD, Government of India, under the National Mission on Education through ICT (NMEICT).

IIT Bombay under e- Yantra conducts **nationwide student competition**, since FOUR Years. In this scheme TWO teams of EC students of Nagarjuna College of Engg. & Technology got selected for 2014 competition, for the initial phase. One of the teams (**Mr.Pavan Attavane, Mr.Rama Kumar K S , Mr. Santhosh Rao Jadav S and Mr. Rajath R Under the Guidance of Dr. G. S. Jayadeva, EC HOD**) selected for final round e-Yantra Robotics Competition-2014 held on March 27<sup>th</sup> 28<sup>th</sup> , 2015 at IIT Bombay and **secured 3<sup>rd</sup> prize.**

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The students are awarded with cash prize of rupees twelve thousand (Rs. 12,000/-) in addition to stents TA & DA expenses. These students are also selected for final round interview for a Senior Technical Project Assistant JOB opportunity at e-Yantra Laboratory at IIT Bombay.

- **Project entitled “Efficient electronics Stethoscope” got selected for Texas Instruments Innovation Challenge India Analog Design Contest 2014, under my mentorship. Carried out by our students Mr. Vishwanathan M. H., III Sem (ECE) and Ms. Vaishnavi T. G., III Sem ( ECE)**
- **STUD SAT –II TEAM of VI sem EC students went for internship training in NMIT, Bangalore during Jan 2015 and continuing their research towards the project. (STUD-SAT- II)**

### Sports Achievements:

Ms. Krishika Ponnamma of II Sem EC is won the Chess Championship during August 2014 and awarded as BEST Chess player.

24. List of eminent academicians and scientists / visitors to the department - **NIL**

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National b) International

### Guest Lecture / Seminars organized in the department

Sl. No	Date	Name of the program	Resource Person / Chief Guest
1	5th to 6th March 2011	Analog Design Using Cadence tool	Dr. Lakshmi Nidi, NITK Suratkal
2	1 <sup>st</sup> Feb 2012	Analog ASIC flow	Mr. Srinivas Madaiah Intel, bangalore
3	3 <sup>rd</sup> March 2012	ASIC RTL to GDS Flow	Mr. Srinivas Madaiah Intel, bangalore
4	10 <sup>th</sup> March 2012	System Verilog for Verification: A Practical approach	Mr. Jayaram Navada C, Renasas Technologies, Bangalore

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5	15 <sup>th</sup> September 2012.	Speech Processing	Dr.Kumara Swamy, SIT Tumkur
6	3 <sup>rd</sup> to 5 <sup>th</sup> October 2013	Workshop on “Microchip PIC 18 Processors & Peripherals	Mr.N.Nithin Awashi
7	11 <sup>th</sup> October 2013	“Image Processing in the block DCT domain”	Dr.Vishwanath SIT Tumkur
8	18 <sup>th</sup> Feb 2014	“MEMS Devices & Applications”	Prof.K N Bhat IISC,Bangalore
9	13 <sup>th</sup> March 2014	LATEX workshop – Organized by NCET Discussion forum	By Mr. Satheesha . T Y & Mr. Rohith. S , NCET, Bangalore.
10	29 <sup>th</sup> Oct 2014	“Correlation Analysis & its application in communication Engg.”	Dr. K. N. Haribhat, NMIT, Bangalore.
11	6 <sup>th</sup> March 2015	Embedded System and Robotics (MICROCHIP’s PIC 18)	Dr.N.Nithin Awashi from APSIS Solutions.
12	15 <sup>th</sup> to 17 <sup>th</sup> March 2015	“Hexpod workshop on Microchip PIC 18 -Microcontrollers”	Dr.N.Nithin Awashi from APSIS Solutions.
13	11 <sup>th</sup> April 2015	“An Overview of ASIC verification Technologies”	by Mr. Pradeep Salla, Technical Manager, Functional Verification & Emulation , Mentor Graphics , Bangalore

26. Student profile programme/course wise:

B. E. – Electronics & Communication Engineering

Name of the Course/programme	Applications received	Selected	Enroll		Pass percentage
			*M	*F	
BE ECE (2011)	145	116	88	28	Passed out
BE ECE (2012)	125	98	55	43	Currently in 7 <sup>th</sup> sem
BE ECE (2013)	130	84	55	29	Currently in 5 <sup>th</sup> sem
BE ECE (2014)	110	96	56	40	Currently in 3 <sup>rd</sup> sem

M.Tech – VLSI Design & Embedded Systems

Name of the Course/programme	Applications received	Selected	Enroll		Pass percentage
			*M	*F	
M. Tech (2011)	30	18	12	06	100%

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M. Tech (2012)	40	23	16	07	100%
M. Tech (2013)	35	24	09	15	100%
M. Tech (2014)	25	11	06	05	Currently in 3 <sup>rd</sup> sem

\*M = Male \*F = Female

### 27. Diversity of Students

#### B. E. - Electronics & Communication Engineering

Year	% of students from the same state	% of students from other States	% of students from abroad
2014-15	59 %	41%	0
2013-14	71 %	29 %	0
2012-13	62 %	38%	0
2011-12	38 %	62 %	0

#### M. Tech – VLSI Design & Embedded

Year	% of students from the same state	% of students from other States	% of students from abroad
2014-15	100%	0	0
2013-14	96%	4%	0
2012-13	100%	0	0
2011-12	94%	6%	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc

**One student has cleared GATE.**

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### 29. Student progression

Student progression	Against % enrolled
UG to PG	4%
PG to M.Phil.	NA
PG to Ph.D.	Nil
Ph.D. to Post-Doctoral	Nil
<b>Employed</b> <ul style="list-style-type: none"> <li>• Campus selection</li> <li>• Other than campus recruitment</li> </ul>	75% of the eligible students are placed  25%
Entrepreneurship/Self-employment	2%

### 30. Details of Infrastructural facilities:

#### a) Department Library books

Total No. of Titles	64
Total No. of volumes	164
Lab Manual	04
UG project Reports	232
PG project Reports	56
Seating capacity	15
Working hours	9.00 am– 4.15pm

#### b) Internet facilities for Staff & Students:

**Name of the Internet Provider : Tata Tele**

**Available Bandwidth / Access speed: 45 Mbps**

**Institute's own e-mail facility of faculty / students: Yes Available**

**Security / privacy to e-mail/ Internet users: Yes Available**  
**Wi-Fi is available for whole campus.**

Class rooms with ICT facility: Nil

- **All Class rooms have dual desks, Green boards, Table & chair for teacher, fans, and tube lights**
- **Department has 2 LCD Projectors.**

d) Laboratories:

<b>Laboratory description in the curriculum</b>	<b>Lab space in Sqm</b>
Analog Electronics Lab	101
Logic Design I Lab	100
Microcontroller Lab	104
HDL Lab/ DSP Lab	101
Communication Lab / Adv. Communication Lab	100
Microprocessor Lab / VLSI Lab	104
Power Electronics Lab	103

**31. Number of students receiving financial assistance from college, university,**

**Government or other agencies**

Year	No. of students
2011-12	54
2012-13	43
2013-14	110
2014-15	176

**32. Details on student enrichment programmes (special lectures / workshops /**

**seminar) with external experts.**

1. Use of virtual laboratory
2. Student soft skill training by HARMONIX

3. Technical workshops and seminars in association with professional bodies and industries
  4. Expert lectures are arranged by inviting techno crafts from industries.
  5. Personality development programmes.
33. Teaching methods adopted to improve student learning
1. Case study in respective subjects
  2. Discussion forum
  3. Assignments
  4. Expert lectures
  5. Power point presentation (PPT)
  6. Internal Assessment
  7. Guest lectures
  8. Student Mentoring and counselling
  9. Industrial visits
  10. Workshops
  11. Seminars
  12. Orientation program
  13. Self study topics
  14. Technical quiz
34. Participation in Institutional Social Responsibility (ISR) and Extension activities:
- **Blood Donation Camp, Eye Camp and Dental checkup camp.**
  - **Internet Awareness Training to High school students from rural areas around the college.**
  - **Yoga & Meditation classes.**
35. SWOC analysis of the department and Future plans

### Strengths:

1. Qualified and experienced faculty members and eager students work as ideal combination for information transmission.
2. Funding of R&D projects from different funding agencies.
3. Well equipped laboratory.
4. Well equipped R&D center where not only our research scholars but outside researchers also come to carry out their work.
5. Virtual lab facility.
6. Participation of students in various programmes/ workshops organized by our institution, other colleges and universities.
7. Excellent infrastructure.

### **Weaknesses:**

1. Students study time is partially reduced due to more transportation time.
2. Industrial consultancy & applied research.
3. Formal Networking with other institutions

### **Opportunities:**

1. Research opportunities in specialized areas
2. External funding opportunities
3. Student / faculty exchange programs
4. Collaboration with institutes of higher learning, research centers and NGOs
5. Possible to change the curriculum as and when required.
6. Networking with premier institutes & Industry for advanced, applied research & academic interaction through MOUs.
7. Alumni Networking for Academic and placement activities.

### **Challenges / Threats:**

1. Competitions from other universities and colleges in relation to admission and placement.
2. Decrease in availability of quality faculty with passion for teaching

### **Future plans of the department:**

1. Use of software for teaching, learning and evaluation.
2. ED Cell - The department plans to develop an ED Cell into a functional unit with proper structure.
3. Invitations to overseas Professors for sharing their knowledge with our students.
4. Plans for student exchange programmes with Foreign Universities.

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## Department of Civil Engineering

1. Name of the department:  
**Civil Engineering**
2. Year of Establishment: **2004-05**
3. Names of Programmes / Courses offered (UG, PG, M. Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)  
**UG: B.E. (Civil Engineering )**  
**PG: M.Tech (Structural Engineering)**  
**PG: M.Tech (Construction Technology )**
4. Names of Interdisciplinary courses and the departments/units involved

Sl. No.	Name Of The Department	Semester	Sub. Code	Subject
1	MBA	V	10AL51	Management & Entrepreneurship
2	Mathematics	I	10MAT11	Mathematics 1
3	Mathematics	II	10MAT21	Mathematics 2
4	Mathematics	III	10MAT31	Mathematics 3
5	Mathematics	IV	10MAT41	Mathematics 4

5. Annual/ semester/choice based credit system (programme wise)
  - **Choice Based Credit System from the academic year 2015-2016**
  - **Semester scheme for previous academic years**

## Self Study Report - 2015

6. Participation of the department in the courses offered by other departments -

Sl. No	Subject	Year & Semester offered	Name of the Department	Credits / Hours
1	Elements of Civil Engineering	2014-15 , I/II Semester	ME, CSE, ECE, ISE	4 hrs/ week
2	Elements of Civil Engineering	2013-14 , I/II Semester	ME, CSE, ECE, ISE	4 hrs/ week
3	Elements of Civil Engineering	2012-13 , I/II Semester	ME, CSE, ECE, ISE	4 hrs/ week
4	Elements of Civil Engineering	2011-12 , I/II Semester	ME, CSE, ECE, ISE	4 hrs/ week

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Nil

8. Details of courses/programmes discontinued (if any) with reasons  
**B.E. (Civil Engineering) programme in 2<sup>nd</sup> shift was closed in 2014**  
**Reason: Institution wanted to have only general shift programmes.**  
**The same programmes are available in general shift**

9. Number of teaching posts

	Sanctioned	Filled
Professors	05	05
Associate Professors	09	09
Asst. Professors	24	24

## Self Study Report - 2015

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guiding for the last 4 years
1.	Dr. Rajendra. S	M.E, M.S, Ph.D	Prof. & Head	Cons. Tech.	31	06
2.	Dr. T. M. Mohan Kumar	M.E, Ph.D	Prof. & Head	Water Resource	27	--
3.	Prof. Nagendra. V	M.E (Ph.D)	Professor	Structures	30	--
4.	Prof. Jagadeesh. C.B	M. Tech. (Ph.D)	Professor	Geo-tech.	29	--
5.	Prof. Sridhar. R	M.E (Ph.D)	Professor	Structures	16	--
6.	Prof. Vijay. K	M.E (Ph.D)	Assc. Prof.	Cons. Tech.	18	--
7.	Dr. Nagaraju Y P	M.Sc., Ph.D	Assc. Prof	Environment	19	
8.	Mrs. Megha N Kulkarni	M. Tech. (Ph.D)	Assc. Prof	Environment	11	--

## Self Study Report - 2015

9.	Mr. Anand Ramabhadran	M.S	Assc. Prof.	Transportation Engg.	10	--
10.	Mr. Varadharaj	MBA	Assc. Prof.	Human Resource Management	05	--
11.	Mr. Sanath Kumar. K.R	M. Sc (Ph.D)	Assc. Prof	Geology	04	--
12.	Mr. Anil Prasad. A.V	M. Tech.	Assc. Prof	Environment	04	--
13.	Mr. Jayashankar. S	M. Tech.	Assc. Prof	Structures	04	--
14.	Ms. Preethi. A.V	M. Tech.	Assc. Prof	Structures	04	--
15.	Ms. Omshruthi M Hosur	M. Tech.	Asst. Prof	Environment	04	--
16.	Mr. Mohan. N	M. Tech.	Asst. Prof	Structures	04	--
17.	Mr. Prabhakar. M	M. Tech.	Asst. Prof.	Structures	03	--
18.	Ms. Deepika. A.N	M. Tech.	Asst. Prof.	Structures	03	--
19.	Ms. Mala. N	M. Tech.	Asst. Prof.	Structures	03	--
20.	Ms. Likitha. R	M. Tech.	Asst. Prof.	Cad Structures	03	--

## Self Study Report - 2015

21.	Mrs. Vanishree. C.N	M. Tech.	Asst. Prof.	Cad Structures	03	--
22.	Mr. Harshavardhan Raju	M. Tech.	Asst. Prof.	Cons. Tech.	03	--
23.	Mr. Sujith. S.K	M. Tech.	Asst. Prof.	Structures	03	--
24.	Mrs. Kavitha. N	M. Tech.	Asst. Prof.	Structures	03	--
25.	Mr. Ramesh. S	M. Tech.	Asst. Prof.	Structures	02	--
26.	Mr. Chethan Krishna	M. Tech.	Asst. Prof.	Transportation	03	--
27.	Ms. Vidya Shree. M	M. Tech.	Asst. Prof.	Geo-tech Engg.	02	--
28.	Mr. Shashikiran. S	M. Tech.	Asst. Prof.	Structures	02	--
29.	Mr. Mandeep. B V	M. Tech.	Asst. Prof.	Highway Engg.	01	--
30.	Mr. Amarnath G A	M. Tech.	Asst. Prof.	Transportation	01	--
31.	Ms. Ramyashree M	M. Tech.	Asst. Prof.	Structures	01	--
32.	Ms. Swetha B	M. Tech.	Asst. Prof.	Structures	01	--
33.	Ms. Swetha K S	M. Tech.	Asst. Prof.	Cons. Tech.	01	--

## Self Study Report - 2015

34.	Ms. Chaithra D M	M. Tech.	Asst. Prof.	Structures	01	--
35.	Mr. Chethan M A	M. Tech.	Asst. Prof.	Structures	01	--
36.	Mr. Chethan K N	M. Tech.	Asst. Prof.	Structures	01	--
37.	Mrs. Ananya S K	M. Tech.	Asst. Prof.	Environment	01	--
38.	Mr. Trinesh D N	M. Tech.	Asst. Prof.	Cons. Tech.	0.5	--

11. List of senior visiting faculty  
**Nil**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty
 

UG : Civil Engineering	-	<b>Nil</b>
PG : M.Tech Structural Engineering	-	<b>Nil</b>
PG : M.Tech Construction Technology	-	<b>Nil</b>
13. Student -Teacher Ratio (programme wise)
 

<b>UG: Civil Engineering</b>	-	<b>STR- 15:1</b>
<b>PG: M. Tech Structural Engineering</b>	-	<b>-STR- 12:1</b>
<b>PG: M. Tech Construction Technology</b>	-	<b>STR- 12:1</b>
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled  
 Support Staff (Technical) and Administrative Staff Sanctioned/ required: **18**  
 Support Staff (Technical) and Administrative Staff Filled: **07**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.  
**Ph.D - 03**  
**M.Tech - 35**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received  
**Nil**
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received  
**Nil**
18. Research Centre /facility recognized by the University

<b>Name of the Research Center</b>	<b>Civil Engineering Department</b>
University	Visvesvaraya Technological University
Recognition No.	VTU/Aca-Res-Cen/2014-15/2863

## 19. Publications:

## a) Publication per faculty

Journal Papers Published by the Faculty in National or International Journal

Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1.	Dr. Rajendra. S	01	03	12	03	19
2.	Dr. T.M. Mohan Kumar	-	01	-	01	02
3.	Prof. Nagendra. V	-	-	-	01	01
4.	Prof. Jagadeesh. C.B.	-	02	02	-	04
5.	Mr. Vijay. K	-	03	01	-	04
6.	Mr. R. Sridhar	-	04	04	03	11
7.	Mrs. Megha N Kulkarni	-	02	04	03	09
8.	Ms. Chaithra D M	-	-	01	-	01
<b>Total</b>		<b>01</b>	<b>11</b>	<b>20</b>	<b>08</b>	<b>52</b>

- Number of papers published in peer reviewed journals (national /international) by faculty and students-12
- Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)-05
- Monographs - **10**
- Chapter in Books - **Nil**
- Books Edited - **Nil**
- Books with ISBN/ISSN numbers with details of publishers - **Nil**
- Citation Index - **Nil**
- SNIP - **Nil**
- SJR - **Nil**
- Impact factor - **Nil**
- h-index - **Nil**

20. Areas of consultancy and income generated

Name of the Project	Sponsoring agency	Amount Released (Rs. Lacs)
3rd Party Inspection	Government Projects	4,00,000/-
Steel Testing , Soil Testing, Cube Testing, Core Aggregate, Bricks Testing etc.	Government & Privet Projects (Infratech Pvt Ltd. , Sujala Pvt., BSR Pvt., KOMUL, etc..)	1,50,000/-

21. Faculty as members in

- a) National committees b) International Committees  
c) Editorial Boards....  
**Nil**

22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme : **80%**
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies - **20%**

## 23. Awards / Recognitions received by faculty and students

Sl. No	Name of the Student	Award Name	Place of Award
01	Shree Keshava	1st Place in National Conference	Jyothi College of Engineering, Bangalore.
02	Raj Kumar Jha (1NC09CV029)	V. V. Deshpande Memorial Gold Medal	VTU, Belagavi

## 24. List of eminent academicians and scientists / visitors to the department

Sl.No	Name of the Visitor	Topic	Date
01	Dr Ramachandra, Vice President, Ultratech Cements	Finite Element Method	20/2/15
02	Dr Ramachandra, Vice President Ultratech Cements	New Innovations in Concrete	20/2/15
03	Er N R Ashok	Deconstruction of Concrete	27/02/15
04	Mr. C R Manjunath, District environmental Officer, Chikaballapur	Effects of pollution in and out of Bangalore city	26/09/2014
05	Mr. C R Manjunath, District Environmental Officer, Chikaballapur	Solid Waste Management	29/10/2014

06	Er N R Ashok	Innovative Construction Techniques and Materials	31/10/ 2014
07	Er Shalini, Director, Sys.N Consultants Pvt Ltd	Brief overview on Fire safety	22/3/14
08	Dr. B.K. Narendra Principal BGSIT B G Nagar Nagamangala	Recent Advances in Civil Engineering	28/08/2013
09	Er Nagesh Rammurthy,  Chief Knowledge Officer, A N Prakash Construction, Project Management Consultants Pvt Ltd.	Importance of Construction Planning	9/11/13
10	Dr. R.V. Ranganath, H.O.D, Civil Engg. BMSIT, Bangalore	Modern Concrete – the Changing Paradigms	09/11/2013

25. Seminars/ Conferences/Workshops organized & the source of funding

- a) National –  
National Level Workshop: **03**.  
Source of funding: Registration fee and contribution by management.
- b) International - **Nil**

26. Student profile programme/course wise:

**B.E in Civil Engineering**

Academic year	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
2011-12	118	118	108	10	Passed out – 93%
2012-13	173	173	160	13	Currently in 7th sem
2013-14	174	174	149	25	Currently in 5th sem
2014-15	147	147	128	19	Currently in 3th sem

\*M = Male \*F = Female

**M.Tech in Structural Engineering**

Academic year	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
2011-12	16	16	10	6	100%
2012-13	24	24	17	07	100%
2013-14	23	23	14	9	Project Viva –Voice in progress
2014-15	24	24	18	06	Currently in III Sem

**M.Tech in Construction Technology**

Academic year	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
2013-14	18	18	18	--	Project Viva –Voice in progress
2014-15	18	18	17	01	Currently in III Sem

## 27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
UG- Civil Engg.	61	39	
PG- Structural Engg.	83	17	
PG- Construction Technology	83	17	-

## 28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

10 students have passed out gate examinations.

## 29. Student progression

Student progression	Against % enrolled
UG to PG	7
PG to M. Phil.	NA
PG to Ph.D.	5
Ph.D. to Post-Doctoral	Nil
<b>Employed</b> • Campus selection • Other than campus recruitment	40% of the eligible students are placed  50%
Entrepreneurship/Self-employment	3%

## 30. Details of Infrastructural facilities:

a) Department Library books – **160 Books are available**

b) **Internet facilities for Staff & Students –**

- All laboratories are provided with internet facility.
- Computer in HODs room, staff room are having internet facility.
- Name of the Internet Provider : **Tata Tele**

- Available Bandwidth / Access speed: **45 Mbps**
- Institute's own e-mail facility of faculty / students: **Yes**
- Available Security / privacy to e-mail/ Internet users: **Yes**

c) **Class rooms with ICT facility:**

- LCD projectors
- Charts and Models

d) **Laboratories**

Sl. No.	Laboratory
1	Basic Materials Testing Lab.
2	Surveying Practice- I & II Lab.
3	Geology Lab.
4	Hydraulics & Hydraulic Machinery Lab.
5	CAD Lab
6	Geotechnical Engineering Lab.
7	Environment Engineering Lab
8	Concrete & Highway Material Testing Lab
9	Material Characterization Lab. (CCT Lab)
10	Structural Engg. Lab- I
11	Software Lab. (CCT Lab.)
12	Structural Engg. Lab- II

31. Number of students receiving financial assistance from college, university, government or other agencies

Year	No. of students
2011-12	62
2012-13	44
2013-14	142
2014-15	281

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

<b>Sl. No.</b>	<b>Date</b>	<b>Title of the Event</b>	<b>Details of the Speaker</b>
1	12/05/2015	A workshop on Analysis and Design of RC structures Using CYPE CAD	Er Amaranath
2	24/4/2014	One day workshop on “Analysis and design of structures using BIM software-CYPECAD	Er Amaranath
3	18/11/2014	One day workshop on Concrete Mix Design	Er Nagesh Puttuswamy
4	31-10-2014	Technical Talk Topic: Innovative Construction Techniques & Materials	Er. N.R. Ashok M. Tech & B.E Civil Students
5	29-10-2014	Seminar arranged for 7 th sem students Topic: Solid Waste Management	Mr. C R Manjunath Dist. Environment Officer
6	30-09-2014	Seminar arranged for 3rd sem students Topic: Fluid mechanic appn.	Dr. Ramesh HOD-CV East-west Instn. Bangalore.
7	23-06-2014 to 05-07-2014	VTU Training Programme (Workshop Empowre 10000) Topic: Quantitative Surveying	Dr. K.E. Prakash Register Evaluator 40 Students Participation
8	24-04-2014	One day Work Shop Topic: Analysis & Design of Structures Using BIM Software CYPECAD	All the B.E 8 <sup>th</sup> sem & M. Tech Students Participation (180 Students)

9	07-04-2014	Brief Overview on Fire Safety	Er. Shalini  All the B.E 8 <sup>th</sup> sem & M. Tech Students Participation (180 Students)
10	09-11-2013	Use of Software in Civil engineering	Mr. Nagesh Rammurthy All the M. Tech. Students & B.E 7 <sup>th</sup> Semester Students.
11	26-08-2013	Recent Advances in Civil Engineering.	Dr. B.K. Narendra, Principal, BGSIT, Bellur.

33. Teaching methods adopted to improve student learning

- **Virtual Laboratory facility**
- **ICT facility**
- **Charts and Models**
- **LCD projectors**
- Case study in respective subjects
- Discussion forum
- Assignments
- Expert lectures
- Power point presentation (PPT)
- Special classes
- Internal Assessment
- Guest lectures
- Student Mentoring and counselling
- Industrial visit
- Workshops
- Seminars
- Orientation program

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- **Blood Donation Camp, Eye Camp and Dental checkup camp.**
- **Internet Awareness Training to High school students from rural areas around the college.**
- **Yoga & Meditation classes.**

35. SWOC analysis of the department and Future plans

**Strength**

- Experienced senior faculty at the top for providing valuable guidance to the department.
- Availability of individual civil engineering block with well equipped lab, seminar hall and other infrastructure.
- Institution is promoted by Nagarjuna Construction Company, hence civil engineering department has good industry-institute interaction in terms of placement, internship, technical talks and assistance to carry out project work.

**Weakness**

- Students study time is partially reduced due to more transportation time.

**Opportunities**

- Scope for improving the consultancy work.
- To Excel as the best department to terms of results and placement.

**Challenges**

- To be in pace with the changing global trends.
- Prepare students to compete and excel with outside world.

**Future Plans**

- To aim for 100 % results and Placement.
- To aim for more number of Specialization at PG level.
- To improve and further increase the overall quality and capability of staff and students.

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## Department of MBA

1. Name of the department –  
**Department of Management Studies**
2. Year of Establishment-  
**2006-2007**
3. Names of Programmes / Courses offered (UG, PG, M.Phil, Ph.D., and Integrated Masters; Integrated Ph.D., etc) -  
**Master of Business Administration**
4. Names of Interdisciplinary courses and the departments/units involved- **Nil**
5. Annual/ semester/choice based credit system (programme wise) –
  - **Choice Based Credit System from the academic year 2015-2016**
  - **Semester scheme for previous academic years**
6. Participation of the department in the courses offered by other departments-

Sl. No	Subject	Year & Semester offered	Name of the Department	Credits / Hours
1	Entrepreneurship and Management	2014-2015 & 5 <sup>th</sup> Sem	ECE	4 hrs/week
2	Entrepreneurship and Management	2013-2014 & 5 <sup>th</sup> Sem	ECE	4 hrs/week
3	Entrepreneurship and Management	2013-2014 & 5 <sup>th</sup> Sem	Mechanical Engg	4 hrs/week

7. Courses in collaboration with other universities, industries, foreign institutions, etc. - **Nil**
8. Details of courses/programmes discontinued (if any) with reasons –  
**MBA programme in 2<sup>nd</sup> shift was closed in 2014**  
**Reason: Institution wanted to have only general shift programmes. The same programmes are available in general shift**

## 9. Number of teaching posts

	Sanctioned	Filled
Professors	1	1
Associate Professors	2	2
Asst. Professors	5	5

## Self Study Report - 2015

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,) - list enclosed

Sl. No	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1	Dr. N Sandhya	LLB, MHRM, MPhil, PhD	Prof. & HOD	HRM	17	07
2	Mrs. Poornima U K	MBA, MA, MPhil, (PhD)	Associate Professor	Economics & HR	20	NIL
3	Mr. Ajatashatru Samal	BE, MBA, (PhD)	Associate Professor	Mktg & System	12	NIL
4	Mrs. Anandamma	MBA, (PhD)	Asst. Professor	Marketing & HR	11	NIL
5	Mr. Lokesh G R	MBA, (PhD)	Assistant Professor	Marketing & HR	08	Nil
6	Mr. Harish K.S	MBA, (PhD)	Assistant Professor	Marketing	07	Nil
7	Mr. Divya Kumar V	MBA	Assistant Professor	Finance	07	Nil
8	Ms. Rajeshwari G V	BE, MBA	Assistant Professor	Finance	06	Nil

11. List of senior visiting faculty –  
**Dr. YM SATISH, Prof. BAB SHETTY**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty – **20%**
13. Student -Teacher Ratio (programme wise) - **15:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled - **02**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.  
**Ph.D. – 01**  
**MPhil – 01**  
**MBA - 06**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received - **NIL**
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received- **NIL**
18. Research Centre /facility recognized by the University-

<b>Name of the Research Center</b>	<b>Department of Management Studies</b>
University	Visvesvaraya Technological University
Recognition No.	VTU/Aca-Res-Cen/2015-16/6726(w)

19. Publications:  
a) Publication per faculty –

<b>Sl No</b>	<b>Faculty Name</b>	<b>National Journal</b>	<b>International Journal</b>	<b>National Conference</b>	<b>International Conference</b>	<b>Total</b>
1	Dr. N Sandhya	04	04	02	01	11
2	Mrs. Poornima U K	06	-	06	03	15
3	Mr. AjataShatru Samal	04	04	05	03	16

4	Mrs. Anandamma N	09	07	07	04	27
5	Mr. Lokesh G.R	05	-	03	-	08
6	Mr. Harish K.S	05	-	05	-	10
7	Mr. Divya Kumar V	02	-	02	-	04
<b>Total</b>		<b>35</b>	<b>15</b>	<b>30</b>	<b>11</b>	<b>91</b>

- Number of papers published in peer reviewed journals (national / International) by faculty and students –

<b>Sl No</b>	<b>Faculty Name</b>	<b>National</b>
1	Dr. N Sandhya	01

- Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- Monographs - **01**
- Chapter in Books - **01**
- Books Edited

<b>Sl No</b>	<b>Faculty Name</b>	<b>No of Books</b>
1	Mr. AjataShatru Samal	01

- Books with ISBN/ISSN numbers with details of publishers

SI No	Book Name	ISBN	Publisher
1	Proceedings of National Conference on Contemporary Issues & Challenges in Corporate Excellence	978-81-923332-0-5	NCET
2	Emerging Trends in Management	978-81-923332-1-2	NCET
3	Research articles on Global opportunities & Challenges in Innovation & Creativity	978-81-923332-2-9	NCET

- Citation Index - **Nil**
- SNIP - **Nil**
- SJR - **Nil**
- Impact factor – **3.2**
- h-index - **Nil**

20. Areas of consultancy and income generated- **NIL**

21. Faculty as members in

- a) National committees b) International Committees c) Editorial Boards....  
**National committee – 01 (NIPM)**

22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme- **20%**
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies- **70%**

23. Awards / Recognitions received by faculty and students- **NIL**

## 24. List of eminent academicians and scientists / visitors to the department-

SI No	Expert Name
1	Dr. Dileep Kumar, (UTARA UNIVERSITY, MALAYSIA)
2	Dr. D K Murthy, (BANGALORE UNIVERSITY)
3	Dr. Krishna, (VTU)
4	Shri. Dharmendra Singh, Global Head-Business relationships, Management Mergers& Acquisitions.
5	Dr. Gururaj Karajagi, Chairman, Academy for Creative Teaching.
6	Shri.A N Prakash, MD, Project management Consultancy Pvt Ltd.
7	Shri. Arjun Devaiah, Founder Abhimanyu Academy.
8	Dr. Ali Khwaza, Banjara Academy, R.T.Nagar, Bangalore

## 25. Seminars/ Conferences/Workshops organized &amp; the source of funding

a) National

b) International

SI No	Program Name	No of Participants	No. of Days/ Date	Resource Persons	Funding Agency
1	Industrial Visit	35	09/05/2015	HMT Machine Tools Jalahalli, Bangalore	NCET
2	SPOORTHI 2015	170	29/04/2015	Mr. Pounacha CEO – Real Estate Heroes	NCET
3	Industrial Visit	45	09/04/2015	ACC Cement Works, Tondebavi	NCET
4	Workshop on Money Mindedness	80	11/03/2015	Mrs. UMA, Compliance Manager & Mrs. Rohini Naik HR Manager ANZ Banking Group	NCET
5	Workshop on Micro Analysis of Balance Sheet	40	19/02/2015	Mr. S Chandra Shekar Corporate Trainer, Empower Solutions	NCET
6	Symposium on trends & perspectives of	100	24/11/2014	Shri. P S Ramesh Executive Director & COO	NCET

	management education in India			Dynamatic Technologies	
7	Guest Lecture on Online Stock Trading	40	26/09/2014	Dr. B Prakash Professor, Acharya B School	NCET
8	Inter college Business Plan Competition	15 teams	30/10/2014	Shri. Mathur K Nanjunda	NCET
9	Personality Development Program	34	11/08/2014 – 13/08/2014	Dr Krishna Director, MBA, Cambridge Institute of Technology	NCET & VTU
10	SPOORTHI 2014	104	15/03/2014	Dr. Dwaraki RIMS, Bangalore	NCET
11	Workshop on Mock interview & Resume writing	32	12/01/2014	Anni Folk Consultants	NCET
12	Pre-Placement training	32	07/01/2014 – 09/01/2014	Ten seconds Consultants Bangalore	NCET
13	Visit to KSDL, Bangalore	40	09/11/2013	Mr. Ajatha Shatru, Mrs. Anandamma, Mrs. Poornima NCET	NCET
14	Visit to BEML, Bangalore	32	05/11/13	Mr. Ajatha Shatru, Mrs. Anandamma, Mr. Sreehari NCET	NCET
15	Guest Lecture in Finance	70	01/10/13	Dr Sai Baba, Professor, Dayanand Sagar College	NCET
16	Guest Lecture in Finance	70	01/10/13	Dr. B Prakash Professor, Acharya B School	NCET
17	National Conference on Global Issues & Challenges in Innovation & Creativity	22 Papers	22/11/2013	Dr. Cyanthia Professor, CBMS	NCET
18	Pre placement training & training & Interview skills	32	31/08/2013	Mrs. Sheela Shankar HR & Training, NCET	NCET
19	SPOORTHI – Inter college Management Fest	10 colleges with 3 to 4 teams	24/5/2013	Dr. M J Arul Director, Presidency B School	NCET
20	Guest Lecture on Corporate Banking	75	27/04/2013	Mr. Prakash Manager, Canara Bank, Avathi	NCET
21	Guest Lecture on Negotiable Instruments	75	27/04/2013	Mr. Prakash Manager, Canara Bank, Avathi	NCET

22	FDP on Personal growth & Interpersonal Skills	75	02/02/2013	Dr. R Venkataraman	NCET
23	Guest Lecture on managing change	80	22/12/2012	Mr. Mohan Kumar Chief Recruitment Officer, WIPRO	NCET
24	Guest Lecture on crisis management	80	07/12/2012	Dr. Maruthi Ram DSC	NCET
25	Case Study Analysis Inter-College Competition	84	17/10/2012	Dr. Balachander Dean, CMR Business School Bangalore	NCET
26	MDP on fundamentals of Taxation	70	21/09/2012	Prof. Y M Satish MSRIT, Bangalore	NCET
27	Guest Lecture on Role of KSFC in promoting Entrepreneurship	70	06/09/2012	Mrs. Roopa & Mr. Kona Reddy KSFC, Bangalore	NCET
28	360 degree leadership	70	06/09/2012	Dr. Dileep Kumar Prof, Utara University, Malaysia.	NCET
29	EDP Workshop	10	19/03/2012 - 21/03/2012	ED CELL Rajajinagar, Bangalore	NCET
30	SPOORTHI – Inter college Management Fest	100	11/05/2012	Mr. Mukund Bharadwaj Deputy CEO, Guhring India Limited	NCET
31	Industrial Tour	60	04/04/2012 – 08/04/2012	----	NCET
32	National conference on contemporary issues and challenges in corporate excellence	100	31/03/2012	Dr. H R Venkatesha Director, Acharya B School, Bangalore	NCET
33	Guest Lecture on Achievement Orientation	80	22/12/2012	Dr. Krishna Director, MBA, Cambridge Institute of Technology	NCET
34	Inter college Business Plan Competition	50	21/10/2011	Mr. M D Shivashankar DGM, SBM, Mysore Zone	NCET
35	FDP on Creativity in Management Education	40	08/10/2011	Dr. Gururaja Karajagi Chairman, Academy of Creative Teaching	NCET

36	Guest Lecture on Vedic Economics	60	03/12/2011	Mr.Vivek Devarajan WIPRO	NCET
37	Guest Lecture on Project Management	80		Mr. Devarajan WIPRO	NCET
38	Industrial Visit	90	29/10/2011	UNIBIC BISCUITS Peenya, Bangalore	NCET
39	Guest Lecture on Development of Leadership Skills	60	29/09/2011	Mr. Anil Kumar Senior Manager, Regulatory Affairs, KPTCL	NCET
40	Guest Lecture on Digital Marketing	60	03/09/2011	Mr. Satish Vishwanathan Associate VP, TULIP DATA SERVICES	NCET
41	Guest Lecture on Human Values and Happiness	60	24/08/2011	Mr. S N Raju Principal, GEMS ACADEMY	NCET

26. Student profile programme/course wise:

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
MBA / 2011	80	60	40	20	100
MBA / 2012	60	32	20	12	100
MBA / 2013	60	40	28	12	92
MBA / 2014	70	46	28	18	85
MBA / 2015	40	23	14	09	Yet to write exams

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
MBA	80%	15%	5%

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?- **02**

29. Student progression

Student progression	Against % enrolled
UG to PG	Nil
PG to M.Phil	Nil
PG to Ph.D.	Nil
Ph.D. to Post-Doctoral	Nil
<b>Employed</b> <ul style="list-style-type: none"> <li>• Campus selection</li> <li>• Other than campus recruitment</li> </ul>	70% 20%
Entrepreneurship/Self-employment	10%

30. Details of Infrastructural facilities

a) Department Library books - 711 titles, 4246

Volumes, J-Gate (JSMS) full text 4400 & indexed 10300,

EBSCO Package (full text 400 & database 6,50,000)

b) Internet facilities for Staff & Students – LAN 45Mbps, Wi-Fi

c) Class rooms with ICT - 03 installed LCD projectors

d) Laboratories – 01 (with 30 computers, 2 printers and backup software)

31. Number of students receiving financial assistance from college, university, Government or other agencies - **40 Students**

32. Details on student enrichment programmes (special lectures / workshops / Seminar) with external experts

<b>Sl No</b>	<b>Program Name</b>	<b>No of Participants</b>	<b>No. of Days/ Date</b>	<b>Resource Persons</b>
1.	Industrial Visit	35	09/05/2015	HMT Machine Tools Jalahalli, Bangalore
2.	SPOORTHI 2015	170	29/04/2015	Mr. Pounacha CEO – Real Estate Heroes
3.	Industrial Visit	45	09/04/2015	ACC Cement Works, Tondebavi
4.	Workshop on Money Mindedness	80	11/03/2015	Mrs. UMA, Compliance Manager & Mrs. Rohini Naik HR Manager ANZ Banking Group
5.	Workshop on Micro Analysis of Balance Sheet	40	19/02/2015	Mr. S Chandra Shekar Corporate Trainer, Empower Solutions
6.	Symposium on trends & perspectives of management education in India	100	24/11/2014	Shri. P S Ramesh Executive Director & COO Dynamatic Technologies
7.	Guest Lecture on Online Stock Trading	40	26/09/2014	Dr. B Prakash Professor, Acharya B School
8.	Inter college Business Plan Competition	15 teams	30/10/2014	Shri. Mathur K Nanjunda
9.	Personality Development Program	34	11/08/2014 – 13/08/2014	Dr Krishna Director, MBA, Cambridge Institute of Technology
10.	SPOORTHI 2014	104	15/03/2014	Dr. Dwaraki RIMS, Bangalore
11.	Workshop on Mock interview & Resume writing	32	12/01/2014	Anni Folk Consultants
12.	Pre-Placement training	32	07/01/2014 – 09/01/2014	Ten seconds Consultants Bangalore
13.	Visit to KSDL, Bangalore	40	09/11/2013	Mr. Ajatha Shatru, Mrs. Anandamma, Mrs. Poornima NCET
14.	Visit to BEML, Bangalore	32	05/11/13	Mr. Ajatha Shatru, Mrs. Anandamma, Mr. Sreehari NCET

15.	Guest Lecture in Finance	70	01/10/13	Dr Sai Baba, Professor, Dayanand Sagar College
16.	Guest Lecture in Finance	70	01/10/13	Dr. B Prakash Professor, Acharya B School
17.	National Conference on Global Issues & Challenges in Innovation & Creativity	22 Papers	22/11/2013	Dr. Cyanthia Professor, CBMS
18.	Pre placement training & training & Interview skills	32	31/08/2013	Mrs. Sheela Shankar HR & Training, NCET
19.	SPOORTHI – Inter college Management Fest	10 colleges with 3 to 4 teams	24/5/2013	Dr. M J Arul Director, Presidency B School
20.	Guest Lecture on Corporate Banking	75	27/04/2013	Mr. Prakash Manager, Canara Bank, Avathi
21.	Guest Lecture on Negotiable Instruments	75	27/04/2013	Mr. Prakash Manager, Canara Bank, Avathi
22.	FDP on Personal growth & Interpersonal Skills	75	02/02/2013	Dr. R Venkataraman
23.	Guest Lecture on managing change	80	22/12/2012	Mr. Mohan Kumar Chief Recruitment Officer, WIPRO
24.	Guest Lecture on crisis management	80	07/12/2012	Dr. Maruthi Ram DSC
25.	Case Study Analysis Inter-College Competition	84	17/10/2012	Dr. Balachander Dean, CMR Business School Bangalore
26.	MDP on fundamentals of Taxation	70	21/09/2012	Prof. Y M Satish MSRIT, Bangalore
27.	Guest Lecture on Role of KSFC in promoting Entrepreneurship	70	06/09/2012	Mrs. Roopa & Mr. Kona Reddy KSFC, Bangalore
28.	360 degree leadership	70	06/09/2012	Dr. Dileep Kumar Prof, Utara University, Malaysia.
29.	EDP Workshop	10	19/03/2012 - 21/03/2012	ED CELL Rajajinagar, Bangalore
30.	SPOORTHI – Inter college Management Fest	100	11/05/2012	Mr. Mukund Bharadwaj Deputy CEO, Guhring India Limited
31.	Industrial Tour	60	04/04/2012 – 08/04/2012	----

32.	National conference on contemporary issues and challenges in corporate excellence	100	31/03/2012	Dr. H R Venkatesha Director, Acharya B School, Bangalore
33.	Guest Lecture on Achievement Orientation	80	22/12/2012	Dr. Krishna Director, MBA, Cambridge Institute of Technology
34.	Inter college Business Plan Competition	50	21/10/2011	Mr. M D Shivashankar DGM, SBM, Mysore Zone
35.	FDP on Creativity in Management Education	40	08/10/2011	Dr. Gururaja Karajagi Chairman, Academy of Creative Teaching
36.	Guest Lecture on Vedic Economics	60	03/12/2011	Mr. Vivek Devarajan WIPRO
37.	Guest Lecture on Project Management	80		Mr. Devarajan WIPRO
38.	Industrial Visit	90	29/10/2011	UNIBIC BISCUITS Peenya, Bangalore
39.	Guest Lecture on Development of Leadership Skills	60	29/09/2011	Mr. Anil Kumar Senior Manager, Regulatory Affairs, KPTCL
40.	Guest Lecture on Digital Marketing	60	03/09/2011	Mr. Satish Vishwanathan Associate VP, TULIP DATA SERVICES
41.	Guest Lecture on Human Values and Happiness	60	24/08/2011	Mr. S N Raju Principal, GEMS ACADEMY

33. Teaching methods adopted to improve student learning- **PEDAGOGY**

34. Participation in Institutional Social Responsibility (ISR) and Extension activities-

- **Blood Donation Camp, Eye Camp and Dental checkup camp.**
- **Internet Awareness Training to High school students from rural areas around the college.**
- **Yoga & Meditation classes.**

35. SWOC analysis of the department and Future plans:

**Strengths :**

- Excellent infrastructural facilities.
- Extensive use of pedagogy.
- Good in placement of final year students.
- Very good Industry-Institute interaction .

**Weakness:**

- Rural Location

**Opportunities**

- MoU's with foreign universities
- Value added courses
- College sponsored internships in industries
- Can attract students of other streams

**Challenges**

- Changing trends in admission
- Designing of course curriculum on par with changing industry trends

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## Department of Mathematics

1. Name of the department:  
**MATHEMATICS**
2. Year of Establishment :  
**2001-2002**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)-  
 a) **UG - BE I to IV Semesters for all branches**  
 b) **PG – M.Tech (MMD) I semester**  
     **M.Tech (VLSI) I semester**
4. Names of Interdisciplinary courses and the departments/units involved-**NA**
5. Annual/ semester/choice based credit system (programme wise):
  - **Choice Based Credit System from the academic year 2015-2016**
  - **Semester scheme for previous academic years**
6. Participation of the department in the courses offered by other departments  
**UG - BE I to IV Semesters for all branches**  
**PG – M.Tech (MMD) I semester**  
**M.Tech (VLSI) I semester**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.-**Nil**
8. Details of courses/programmes discontinued (if any) with reasons--**NA**
9. Number of Teaching posts

	<b>Sanctioned</b>	<b>Filled</b>
Professors	1	1
AssociateProfessors	1	2
Asst.Professors	7	7

## Self Study Report - 2015

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil.etc.,)

Sl. NO.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last 4 years
1	Dr.K. Venkatalakshmi	M.Sc,Ph.D	Professor	Special Functions	33	-
2	Mr. M.V. Sarvesha	M.Sc, M.S M.Phil	Assc. Prof. & Head	Semi groups	18	-
3	Mr. V.B. Ramesh Gowda	M.Sc,M.Phil	Assc. Prof.	MHD	28	-
4	Ms. Geetha. G.L	M.Sc	Asst Prof	MHD	5	-
5	Mrs. Mala. K. K	M.Sc, M.Phil	Asst Prof	MHD	4	-
6	Mr. Vishwanath. M. C	M.Sc,	Asst Prof	MHD	4	-
7	Mrs. Madhura H S	M.Sc,	Asst Prof	MHD	7	-
8	Mr. Bhaskar L V	M.Sc,	Asst Prof	MHD	4	-
9	Ms. Kavitha G	M.Sc,	Asst Prof	MHD	8	-
10	Ms. Kavya Lakshmi	M.Sc,	Asst Prof	MHD	3	-

11. List of senior visiting faculty- **Nil**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty- **Nil**
13. Student –Teacher Ratio (programme wise) – **NA**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled - **NA**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ Mphil / PG.:  
**Ph.D. – 01**  
**MPhil - 03**  
**P.G - 06**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received - **Nil**
17. Departmental projects funded by DST – FIST; UGC, DBT, ICSSR, etc. and total grants received- **Nil**
18. Research Centre /facility recognized by the University - **Nil**
19. Publications:
  - ☐ a) Publication per faculty

Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1	M.V.Sarvesha	-	-	02	-	02
2.	Dr.D.K.Venkatalakshmi	-	-	-	01	01
3.	Vishwanath	-	-	01	-	01

- Number of papers published in peer reviewed journals (national/ international) by faculty and students

- ☐ Number of papers published in peer reviewed journals (national / international) by faculty and students : **Nil**
- ☐ Monographs - **02**
- ☐ Chapter in Books
- ☐ Books Edited
- ☐ Books with ISBN/ISSN numbers with details of publishers
- ☐ Citation Index
- ☐ SNIP
- ☐ SJR
- ☐ Impact factor
- ☐ h-index

20. Areas of consultancy and income generated- **Nil**

21. Faculty as members in **Nil**

a) National committees b) International Committees c) Editorial Boards....

22. Student projects - **NA**

23. Awards / Recognitions received by faculty and students- **Nil**

24. List of eminent academicians and scientists / visitors to the department- **Nil**

25. Seminars/ Conferences/Workshops organized & the source of funding – **Nil**

26. Student profile programme/course wise: **NA**

27. Diversity of Students -**NA**

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? - **NA**

29. Student progression- **NA**

30. Details of Infrastructural facilities

a) Department Library books - No

- b) Internet facilities for Staff & Students : there are three systems with internet facility
  - c) Class rooms with ICT facility - **Nil**
  - d) Laboratories: **Nil**
31. Number of students receiving financial assistance from college, university, Government or other agencies- **Nil**.
32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts - **Nil**
33. Teaching methods adopted to improve student learning.
- Video
  - E-learning through digital library.
  - Presentation through LCD Projectors.
  - Written quiz
  - Remedial classes.
  - Student seminars.
  - Assignments.
  - Guest lecturers.
34. Participation in Institutional Social Responsibility (ISR) and Extension activities
- **Blood Donation Camp, Eye Camp and Dental checkup camp.**
  - **Internet Awareness Training to High school students from rural areas around the college.**
  - **Yoga & Meditation classes.**
35. SWOC analysis of the department and Future plans

**Strengths:**

- Highly qualified and motivated faculties having expertise in their area of specialization.
- Teamwork with inbuilt confidence in faculty.
- Good faculty retention.

**Weakness :**

Long distance from the city, hence students spend more time in commuting

**Opportunities :**

- Autonomy in curricular development.
- Collaboration with institutes of higher learning, research centers and NGOs.

**Challenges :**

- New Engineering colleges and universities are coming up in Bangalore which poses a challenge to admission and placement.
- Training students beyond curriculum.
- Fluctuating demand in industry.

**Future Plan:**

- To start a Research Center.
- Use of software for teaching, learning and evaluation.

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## Department of Physics

1. Name of the department-  
**Physics**
2. Year of Establishment-  
**2001-2002**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)-  
a) **UG( BE I & II Semesters for all branches)**  
b) **Ph.D- Physics**
4. Names of Interdisciplinary courses and the departments/units involved-**NA**
5. Annual/ semester/choice based credit system (programme wise):  
**Semester Scheme for BE is followed with choice based credit system from academic year 2015-16**
6. Participation of the department in the courses offered by other departments-**NA**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.-**Nil**
8. Details of courses/programmes discontinued (if any) with reasons--**NA**
9. Number of teaching posts

	Sanctioned	Filled
Professors	1	1
Associate Professors	1	1
Asst. Professors	4	4

## Self Study Report - 2015

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. Etc.,)

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1	Dr. Harisha P	M Sc. Ph. D	Professor & Dean	Nuclear Physics	23	01
2	Mrs. Sharada T	M Sc	Asst. Prof. & Head	Solid State Physics	13	-
3	Mrs. Archana B S	M Sc	Asst Prof	Condensed matter Physics	08	-
4	Mrs. Roopa K N	M Sc.	Asst Prof	Condensed matter Physics	05	-
5	Mr. Devaraja C	M Sc	Asst Prof	Condensed matter Physics	05	-
6	Ms. Pavithra	M Sc	Asst Prof	Condensed matter Physics	0.9	-

11. List of senior visiting faculty- **Nil**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty- **Nil**
13. Student –Teacher Ratio (programme wise) – **NA**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Sl. No.	Type of Staff	Sanctioned	Filled	Experience in years.
01	Academic support staff(technical)	01	01	12
02	Academic support staff(non technical)	-	-	-

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ Mphil / PG.:  
**Ph.D. – 01**  
**P.G - 05**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received - **Nil**
17. Departmental projects funded by DST – FIST; UGC, DBT, ICSSR, etc. and total grants received- **Nil**
18. Research Centre /facility recognized by the University

Name of the Research Center	Department of Physics
University	Visvesvaraya Technological University
Recognition No.	VTU/Aca-Res-Cen/2015-16/6726(w)

## 19. Publications:

☐ a) Publication per faculty

Sl.no	Name of the faculty	journal		conference	
		National	International	National	International
1	Dr. Harisha P	-	01	5	02
2	Mrs. Sharada T	-	-	2	01
3	Mr. Devaraja C	-	-	-	01

- ☐ Number of papers published in peer reviewed journals (national / international) by faculty and students : **01**
- ☐ Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- ☐ Monographs: **Engineering Physics Lab Manual**
- ☐ Chapter in Books
- ☐ Books Edited
- ☐ Books with ISBN/ISSN numbers with details of publishers
- ☐ Citation Index
- ☐ SNIP
- ☐ SJR
- ☐ Impact factor
- ☐ h-index

20. Areas of consultancy and income generated- **Nil**21. Faculty as members in **Nil**

- a) National committees b) International Committees c) Editorial Boards....

## 22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme

There is a limited scope for students in first year BE program for the student projects.

- b) Percentage of students placed for projects in organizations outside the institution

i.e.in Research laboratories/Industry/ other agencies--NA

23. Awards / Recognitions received by faculty and students-

Name of Faculty	Achievements
Dr. Harisha P	Chaired the session in National and International Conferences organized by other departments.
	BOE –Member, VTU, Belagavi.
	Subject Expert for Staff selection committee at Sir MVIT, HKBK, Bangalore.

24. List of eminent academicians and scientists / visitors to the department-

1.	Shri. Dharmendra Singh, Global Head-Business relationships, Management Mergers& Acquisitions.
2.	Dr. Gururaj Karajagi, Chairman, Academy for Creative Teaching.
3.	Shri.A N Prakash, MD, Project management Consultancy Pvt Ltd.
4.	Dr. Sunil Kumar Sharma, Scientist, Ministry of New & Renewable Energy, Government of India.
5.	Shri. Anil Dev, CEO, Climaveneta Climate Technologies (P)Ltd.
6.	Dr. B. Ashok, Deputy Project Director-AbA, Bangalore.
7.	Dr. S Kasturirangan, Prof. CTC, IISc. Bangalore.
8.	Dr.D Mohan, Prof& Head, Mech Engg, Govt Engg College.
9.	Dr. M M Benal, Prof& Head, Mech Engg, Govt Engg College. Kushalnagar.
10.	Dr. K E Prakash, Registrar, VTU Belgaum.
11.	Shri. Amarnath, Structural Engineer, FE Designs.
12.	Shri. M V Raghuram, Director, BAIL.
13.	Dr. Maheshappa , Vice Chancellor ,VTU Belgaum.
14.	Dr. C K Subraya, Chairman, ISTE.
15.	Prof. H S Bhatia, IETE, Bangalore.
16.	Dr. M H Kori, IETE, Bangalore.
17.	Shri. Vincent W D' Souza, J V Global, Bangalore.
18.	Shri. C.Kalaivanan, Group Director (Rtd), Ministry of Defence.
19.	Shri. K G Shrinidhi, Head, ISRO. Bangalore.
20.	Shri. Bhaskar Reddy A V, Member-Education & Research, Infosys.
21.	Shri. Hemendra Bhanushali, Consultant, Siemens.
22.	Shri. P S Lakshman, Director, Global Programs, SAP.
23.	Shri. Ramesh Arvind, Actor.

24.	Shri. Koti. Music Director, Telugu Film Industry.
25.	Shri. M Shreekantha Swamy, AEE, PWD, Karnataka.
26.	Shri. Kannan Sumdararajan, Delivery Manager, Siemens.
27.	Shri. Thippanna, Joint Diretor, BIAAPA, Devanahalli.
28.	Shri. Shyamaraj K S. Group Manager, Robo soft Technologies Pvt Ltd. Udupi.
29.	Shri. Srikanth N, Deputy Manager, Bosch, Bangalore.
30.	Shri. C R Manjunath, Environmental Officer, Pollution Control Board, Chikkaballapura.
31.	Prof. Udupi Shrinivasa, Dept of Mech Engg IISc. Bangalore.
32.	Shri Shrikanth K G. Asst Director, MSME development Institute, Bangalore.
33.	Shri. Mohan Kumar, Practice Head, Wipro, Bangalore.
34.	Shri. Shivananda K R, Deputy Chief Engineer, BMRCL, Bangalore.
35.	Shri. S Umashankar, Dy.General Manager, BEL, Bangalore.
36.	Shri. Maruti Samrani, Joint Commissioner for Transport, Bangalore.
37.	Shri. H N Gorakshanath, Dy. Manager, Ultra tech Cement Ltd.
38.	Shri. Abhijith Sreenivas, Senior Program Manager, EMC <sup>2</sup> , Bangalore.
39.	Shri. B Rajarama, Dy. General manager, NTPC Ltd, Visakhapatnam.
40.	Shri. Arjun Devaiah, Founder Abhimanyu Academy.
41.	Shri. M N Madhusudhan, ISRO, Bangalore.
42.	Shri. Ibrahim Goonadka, Deputy Director, Women & Child Development, Bangalore.

25. Seminars/ Conferences/Workshops organized & the source of funding - **Nil**

a) National

b) International

26. Student profile programme/course wise:

**NA**

\*M = Male \*F = Female

27. Diversity of Students-**NA**

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?- **NA**

29. Student progression: **NA**
30. Details of Infrastructural facilities
- a) Department Library books: total number of books -044**
- Digital library: Springer, knimbus, Taylor and Francis.**
- b) Internet facilities for Staff & Students- Wi-fi enabled campus.**
- c) Class rooms with good ventilation and light.**
- d) Laboratories:**
- Physics lab-1=200sqmts, Ground floor main block .NCET**
- Physics lab-2=150sqmts, Ground floor CS block. NCET**
- e) Seminar hall:**
- The central facility can be accessed based on the need of the department.**
31. Number of students receiving financial assistance from college, university, Government or other agencies- **Nil.**
32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts
- Talk by Dr. Gururaj Karajagi. Chairman, Academy for Creative Teaching.
  - Inspirational talk by Dr. Ramesh Babu, World record holder, Scientist.
  - Seminar on Swami Vivekananda's vision on national regeneration was organized with the support from Ramakrishna Mutt-Usoor, RT Nagar, CB Pur.
  - Talk on "Peaceful Life" By Shri Shri Paripoornananda Swamy.
  - Life skill and communication Skill by Global harmonix.
33. Teaching methods adopted to improve student learning.
- Virtual Lab
  - Video
  - E-learning through digital library.
  - Presentation through LCD Projectors.
  - Written quiz
  - Remedial classes.
  - Student seminars.
  - Assignments.
  - Guest lecturers.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- Blood donation camps
- World Environment day. Etc...

35. SWOC analysis of the department and Future plans

**1. Strengths**

- Team of dedicated teachers to mould I year students of BE program.
- Highly qualified and experienced teachers.
- Conducive environment to teach in the class room.
- Spacious Laboratory to enrich the practical knowledge of students.
- Regular monitoring of students performance through counselors.
- Parents teacher meetings which involve parents in the overall development of the students.
- VTU recognized research centre.
- Department library with rare books.
- Through External agency life skill and Communication courses are offered to I year students.
- Well equipped laboratory.

**2. Weakness**

- I year student are being taught by large number of faculty across the college.
- Less number of high CET rank students.
- Students are from rural background.

**3. Opportunities**

- Exploration of young minds for various technological outcomes.
- Using the creativity of students to proceed towards excellence.
- To seek external funded projects.

**4. Challenges**

- Many students are less comfortable with English communication.
- Geographically diversified student community leads to difficulty in team work.

**Future Plans of the department:**

1. To work towards excellence by continuously improving teaching methodology.
2. To create environment for the students to bring out their hidden talents through various activities.
3. To coordinate well with parents, students and faculty from other department to build good cordial relationship with each other.
4. To have a student forum to develop insight in key verticals.
5. To develop as a center of Excellence.

\*\*\*\*

## Department of Chemistry

1. Name of the department:  
**Chemistry**
2. Year of Establishment:  
**2001-2002**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)-
  - a) **UG (BE - I & II Semesters for all branches)**
  - b) **Ph.D - Chemistry**
4. Names of Interdisciplinary courses and the departments/units involved - **NA**
5. Annual/semester/choice based credit system (programme wise)
  - **Choice Based Credit System from the academic year 2015-2016**
  - **Semester scheme for previous academic years**
6. Participation of the department in the courses offered by other departments -**NA**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.- **Nil**
8. Details of courses/programmes discontinued (if any) with reasons -**NA**
9. Number of Teaching posts

	<b>Sanctioned</b>	<b>Filled</b>
Professors	1	1
Associate Professors	1	1
Asst. Professors	4	5

## Self Study Report - 2015

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)

Sl. No	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1	Dr. Manjunatha K	M.Sc. Ph.D	Prof. & Head	Chemistry	10	02
2	Prof. Mamatha M	M.Sc. M. Phil	Asst. Prof.	Chemistry	18	-
3	Mrs. Shruthi K S	M.Sc.	Asst. Prof.	Chemistry	8	-
4	Mrs. Shwetha M	M.Sc.	Asst. Prof.	Chemistry	4	-
5	Mr. Bharath K Devendra	M.Sc.	Asst. Prof.	Chemistry	3	-
6	Mrs. Maheshwari B	M.Sc.	Asst. Prof.	Chemistry	5	-
7	Mrs. Kavitha S	M.Sc.	Asst. Prof.	Chemistry	5	-

## Self Study Report - 2015

11. List of senior visiting faculty - **Nil**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty - **Nil**
13. Student -Teacher Ratio (programme wise) – **NA**
14. Number of academic support staff (technical) and administrative staff;

Sl. No.	Type of Staff	Sanctioned	Filled
01	Academic support staff (technical)	2	2
02	Academic support staff (non technical)	1	1

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ M.Phil / PG.  
**Ph.D. – 01**  
**M.Phil - 01**  
**P.G - 05**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received - **Nil**
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received - **Nil**
18. Research Centre /facility recognized by the University:

Name of the Research Center	Department of Chemistry
University	Visvesvaraya Technological University
Recognition No.	VTU/Aca-Res-Cen/2015-16/6726(w)

19. Publications:

Sl. No.	Faculty Name	No. of Paper Published				Total
		National Journal	International Journal	National Conference	International Conference	
1	Dr. Manjunatha K	-	14	3	2	19
2	Prof. Mamatha M	-	1	-	-	01
Total		-	15	3	2	20

- ☐ Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) - **15**
- ☐ Monographs: **Engineering Chemistry Lab Manual**

- ☐ Chapter in Books
- ☐ Books Edited
- ☐ Books with ISBN/ISSN numbers with details of publishers
- ☐ Citation Index – **138**
- ☐ SNIP – **Nil**
- ☐ SJR – **Nil**
- ☐ Impact factor – **18**
- ☐ h-index - **3**

20. Areas of consultancy and income generated - **Nil**

21. Faculty as members in - **Nil**

a) National committees    b) International Committees    c) Editorial Boards....

22. Student projects

a).Percentage of students who have done in-house projects including inter departmental/programme - **NA**

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies - **NA**

23. Awards/Recognitions received by faculty and students - **Nil**

24. List of eminent academicians and scientists/visitors to the department

- 1    Dr. Sunil Kumar Sharma, Scientist, Ministry of New & Renewable Energy, Government of India.
- 2    Shri. Anil Dev, CEO, Climaveneta Climate Technologies (P)Ltd.
- 3    Dr. S Kasturirangan, Prof. CTC, IISc. Bangalore.
- 4    Dr. Maheshappa , Vice Chancellor ,VTU Belgaum.
- 5    Shri. C R Manjunath, Environmental Officer, Pollution Control Board, Chikkaballapura.
- 6    Shri. Arjun Devaiah,Founder Abhimanyu Academy.
- 7    Shri. M N Madhusudhan, ISRO, Bangalore.
- 8    Shri. Ibrahim Goonadka, Deputy Director, Women & Child Development, Bangalore.

25. Seminars/Conferences/Workshops organized & the source of funding -

**Nil**

a) National    b) International

26. Student profile programme/course wise: **NA**

27. Diversity of Students – NA
28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? -NA
29. Student progression - NA
30. Details of Infrastructural facilities
- a) Department Library books
    - Department library: total number of books - **030**
    - Digital library: Springer, Knimbus, Taylor and Francis.
  - b) Internet facilities for Staff & Students- Wi-fi enabled campus.
  - c) Class rooms with good ventilation and light.
  - d) Laboratories:
    - Chemistry lab-1 = 200 sqmts, Ground floor main block
    - Chemistry lab-2 = 150 sqmts, Ground floor CS block.
  - e) Seminar hall:
    - The central facility can be accessed based on the need of the department.
31. Number of students receiving financial assistance from college, university, government or other agencies - NA
32. Details on student enrichment programmes (special lectures/workshops/seminar) with external experts –
- Talk by Dr. Gururaj Karajagi. Chairman, Academy for Creative Teaching.
  - Expert talk by Dr. Ramesh Babu, World record holder, Scientist.
  - Seminar on Swami Vivekananda's vision on national regeneration was organized with the support from Ramakrishna Mutt - Ulsoor, RT Nagar, Chickballapura.
  - Talk on "Peaceful Life" By Shri Shri Paripoornananda Swamy.
  - Life skill and communication Skill by Global harmonix.
33. Teaching methods adopted to improve student learning
- Virtual Lab
  - E-learning through digital library.
  - Presentation through LCD Projectors.
  - Written quiz
  - Remedial classes

- Student seminars
  - Assignments
34. Participation in Institutional Social Responsibility (ISR) and Extension activities
- The rally was organized to spread awareness about the pollution caused during Diwali festival.
  - Blood donation camps
  - World Environment day
  - Planting trees in and around the college
35. SWOC analysis of the department and Future plans
- 1. Strengths**
- Team of dedicated teachers to mould I year students.
  - Highly qualified and experienced teachers.
  - Spacious & well equipped laboratory to enrich the practical knowledge of students.
  - Regular monitoring of students performance through counselors.
  - VTU recognized research centre.
- 2. Weakness**
- Long distance from the city, hence students spend more time in commuting
  - The socio-economic background of many of the students admitted in the College is responsible for poor language competence. This leads to an unsatisfactory level of comprehension and communication, particularly in the first two semesters.
  - Many students coming from the urban background belong to nuclear family. Some of them find it difficult to cope with the demands of a community life based on caring and sharing. Sometimes this leads to psychological imbalance.
- 3. Opportunities**
- The new learning of the age requires greater proficiency in soft skills among students. The College has the necessary technical and infrastructural resources to take this to a higher level.
  - Exploration of young minds for various technological outcomes.
  - Using the creativity of students to proceed towards excellence.
  - To seek external funded projects.
- 4. Challenges**
- Geographically diversified student community leads to difficulty in team work.
  - New Engineering colleges and universities are coming up in Bangalore which poses a challenge to admission and placement.
  - Training students beyond curriculum.
  - Fluctuating demand in industry.

**Future Plans of the department:**

- To provide creative environment for the students to bring out their hidden talents through various activities.
- Use of software for teaching, learning and evaluation.
- To work towards excellence by continuously improving teaching methodology.

## Self Study Report - 2015

- To conduct workshop on recent challenges in the field of chemical sciences
- To have a student forum to develop insight in key verticals.
- To develop as a center of excellence.

\*\*\*\*

## **ANNEXURES**

## ANNEXURE – I



*All India Council for Technical Education*  
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001  
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 [www.aicte-india.org](http://www.aicte-india.org)

F.No. South-West/1-2451218516/2015/EOA

Date: 07-Apr-2015

To,  
The Principal Secretary (Hr. & Tech Education)  
Govt. of Karnataka, K. G.S., 6th Floor,  
M.S. Building, R. N. 645, Dr. B. R. Ambedkar Road,  
Bangalore-560001

**Sub: Extension of approval for the academic year 2015-16**

Ref: Application of the Institution for Extension of approval for the academic year 2015-16

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F.No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	South-West	Application Id	1-2451218516
		Permanent id	1-2513971
Name of the institute	NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY	Institute Address	MUDUGURKI VENKATAGIRI KOTE DEVANAHALLI, BENGALURU, BANGALORE RURAL, Karnataka, 562110
Name of the Society/Trust	NAGARJUNA EDUCATION SOCIETY	Society/Trust Address	38/1 RAMASONDANA HALLI, YELAHANKA HOOLI, BANGALORE, BANGALORE URBAN, Karnataka, 560064
Institute Type	Unaided - Private		

Opted for change from Women to Co-ed	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2015-16

Application Number: 1-2451218516

Page 1 of 4

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# Self Study Report - 2015



All India Council for Technical Education  
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7th Floor, Chandralok Building, Janpath, New Delhi- 110 001  
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 [www.aicte-india.org](http://www.aicte-india.org)

Application Id: 1-2451218516			Course	Full/Part Time	Affiliating Body	Intake 2014-15	Intake Approved for 15-16	NET Approval status	PIO Approval status	Foreign Collaboration Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER SCIENCE & ENGINEERING	FULL TIME	Vesveswariah Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	CONSTRUCTION TECHNOLOGY	FULL TIME	Vesveswariah Technological University, Belgaum	15	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	MACHINE DESIGN	FULL TIME	Vesveswariah Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	STRUCTURAL ENGINEERING	FULL TIME	Vesveswariah Technological University, Belgaum	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	VLSI DESIGN AND EMBEDDED SYSTEMS	FULL TIME	Vesveswariah Technological University, Belgaum	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	Vesveswariah Technological University, Belgaum	180	180	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Vesveswariah Technological University, Belgaum	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENG	FULL TIME	Vesveswariah Technological University, Belgaum	120	120	NA	NA	NA

Application Number: 1-2451218516

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PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 [www.aicte-india.org](http://www.aicte-india.org)

Application Id: 1-2451218516			Course	Full/Part Time	Affiliating Body	Intake 2014-15	Intake Approved for 15-16	NET Approval status	PGO Approval status	Foreign Collaboration Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION SCIENCE AND ENGINEERING	FULL TIME	Vesveerwarash Technological University, Belgaum	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Vesveerwarash Technological University, Belgaum	180	180	NA	NA	NA
MANAGEMENT	1st Shift	POST GRADUATE	MASTERS IN BUSINESS ADMINISTRATION	FULL TIME	Vesveerwarash Technological University, Belgaum	80	80	NA	NA	NA

Note: Validity of the course details may be verified at [www.aicte-india.org/departments/approvals](http://www.aicte-india.org/departments/approvals)

The above mentioned approval is subject to the condition that NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

**Dr. Avinash S Pant**  
Actg Chairman, AICTE

Copy to:

Application Number: 1-2451218516

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7th Floor, Chandralok Building, Janpath, New Delhi- 110 001  
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 [www.aicte-india.org](http://www.aicte-india.org)

1. **The Regional Officer,**  
All India Council for Technical Education  
Health Centre Building  
Bangalore University Campus  
Bangalore - 560 009, Karnataka
2. **The Director Of Technical Education,**  
Karnataka
3. **The Registrar,**  
Visvesvaraya Technological University, Belgaum
4. **The Principal / Director,**  
NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY  
MUDUGURKI  
VENKATAGIRI KOTE  
DEVANAHALLI,  
BENGALURU, BANGALORE RURAL,  
Karnataka, 562110
5. **The Secretary / Chairman,**  
NAGARJUNA EDUCATION SOCIETY  
38/1 RAMAGONDANA HALLI, YELAHANKA HOBLI,  
BANGALORE, BANGALORE URBAN,  
Karnataka, 560064
6. **Guard File(AICTE)**

Application Number: 1-2451218516


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## ANNEXURE – II


**Visvesvaraya Technological University**  
 "Jnana Sangama", Belagavi – 590 018, Karnataka State

Dr K.E. Prakash  
 Registrar

Phone: (0831) 2405468  
 Fax : (0831) 2405467

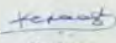
Ref: VTU/Aca/2014-15/A-11/1674


Date **4 JUN 2015**

**TO WHOM IT MAY CONCERN**

This is to certify that **Nagarjuna College of Engineering and Technology, Bengaluru** is affiliated to the **Visvesvaraya Technological University, Belagavi** since 2001 and recognized by the All India Council for Technical Education, New Delhi and the following Courses are taught in the said college.

Sl No	Name of the Course(s)	Affiliation		Period of Validity for the year(s)
		Permanent	Temporary	
1	B.E in Electronics and Communication Engineering	Permanent		2008-09 to 2012-13 and 2014-15 to 2019-20
2	B.E in Computer Science and Engineering	Permanent		2013-14 to 2017-18
3	B.E in Information Science and Engineering	Permanent		2013-14 to 2017-18
4	B.E in Mechanical Engineering	Permanent		2013-14 to 2017-18
5	B.E in Civil Engineering	Permanent		2010-11 to 2014-15 and Applied for Permanent Affiliation during 2015-16
6	M.Tech in Structural Engineering	Temporary	(Started during 2011-12)	2014-15
7	M.Tech in Machine Design	Temporary	(Started during 2014-15)	2014-15
8	M.Tech in VLSI and Embedded Systems	Temporary	(Started during 2014-15)	2014-15
9	M.Tech in Construction Technology	Temporary	(Started during 2014-15)	2014-15
10	M.Tech in Computer Science and Engineering	Temporary	(Started during 2014-15)	2014-15
11	Master of Business Administration	Permanent		2014-15 to 2019-20

  
 Registrar  
 REGISTRAR  
 Visvesvaraya Technological University  
 BELGAUM



## ANNEXURE – III

## Personality Development Programme

Course Code	: 15PDP18/28	L:T:P:S	Credits	: 2
Exam Marks	: CIE: 50 SEE: 50	2:0:0:0	Exam Duration	: 2 hours

**Course Objectives:**

1. To catalyze all-round development focused on all dimensions of personality: physical, emotional, intellectual and spiritual
2. To empower and help to successfully resist temptations and distractions present in the surroundings
3. To help comprehend the importance of being independently thoughtful

**Syllabus:****Module - I****Setting the Scene****4 hours**

Urban landscape: An analysis; The Myth of more; Spirit over matter; A universal frame of reference

**Module - II****Selective Entertainment****6 hours**

Meaning of entertainment; Need for entertainment; Need for selective entertainment; Ill-effects of indiscriminate entertainment; Techniques to escape the web of mundane entertainment

**Module - III****Handling Peer Pressure****6 hours**

Meaning of peer pressure; External and internal factors that cause peer pressure; Productive and counter-productive friendship; Factors that nurture friendship; Techniques to handle peer pressure effectively

**Module - IV****Relationship Management****6 hours**

Meaning of relationship; Inevitability of relationships; Need for relationship management, Factors that promote healthy relationships, Techniques to manage relationships effectively

**Module - V****Healthy Living****6 hours**

Meaning of healthy living; Dimensions of life (Physical, Mental/Emotional, Intellectual, Spiritual); Factors that impede healthy living; Techniques to practice holistic healthy living through lifestyle modification

**Course Outcomes:**

By the end of the course, the student will:

- Predict the ill-effects of indiscriminate entertainment and select the right modes of entertainment
- Comprehend the importance of choosing one's association carefully by distinguishing between the external and internal factors that cause peer pressure
- Learn various techniques to manage, nurture and develop relationships
- Learn techniques to maintain equilibrium between the physical, emotional, intellectual and spiritual dimensions of personality

**Reference Books:**

1. *Coming Back* by HDG A.C. Bhaktivedanta Swami Prabhupada (BBT)
2. *Engineering, Ethics, and the Environment* by Vesilind & Gunn (Cambridge UP)
3. *On Myself, And Other, Less Important Subjects* by Caspar Hare (Princeton UP)
4. *Philosophy and Education* by Mrinal Miri (Oxford UP)
5. *Professional Ethics and Etiquette (Second Edition)* by Ferguson (Facts on File Inc)

**E-Resources:**

1. Bhaktivedanta Vedabase: <http://www.vedabase.com/>
2. Online Ethics Center (For Engineering and Science): <http://www.onlineethics.org/>

\*\*\*

## Communication Skill Development

Course Code	: 15CSD18/28	L:T:P:S	Credits	: 2
Exam Marks	: CIE: 50 SEE: 50	2:0:0:0	Exam Duration	: 2 hours

**Course Objectives:**

4. To empower with essentials of English grammar necessary for fluent and effective communication
5. To introduce basics of communication and equip with introductory presentation skills
6. To enable effective understanding of Engineering subjects

**Syllabus:****Module I****Essentials of the Communication Process and its Types****5 hours**

Introduction to communication; Benefits of good communication skills; The communication process; Ethical communication; Characteristics of a good communicator; Types of communication

**Module II****Basics of the English Language and its Grammar****6 hours**

History of English; English grammar: Words (Parts of speech, Spelling rules, Determiners, Paragraphs, Punctuation marks, Structure of a sentence, Basic sentence types); Classification of inflection; Forms of inflection; Inflection of nouns (Number, Gender); Inflection of verbs (Tense, Person, Voice); Inflection of adjectives (Degree)

**Module III****Introduction to Etymology and Development of Vocabulary****5 hours**

Test Your Present Vocabulary (Word Power Made Easy); Etymology in English language; Start building your vocabulary (Word Power Made Easy); Personality Types (Word Power Made Easy)

**Module IV****Common Errors in English Language****6 hours**

Categories of errors; Grammar error; Word choice error; Pronunciation error; Punctuation error; Spelling error; Test Your Grammar (Word Power Made Easy)

**Module V****Presentation Skills****6 hours**

Introduction; Talking vs Presenting; The deadly sins; Overcoming nervousness; Attention and interest (Visual aids, Humor, Eye contact, Voice, Movement, Analogies, Human interest, Conviction and enthusiasm, Body language); Presentation steps

**Course Outcomes:**

By the end of the course, the student will:

- Understand the dynamics of communication and display the ability to participate in simple group discussions
- Discover the practical aspects of the basics of English language grammar and identify the common errors in English language
- Illustrate an understanding of the science of etymology and adapt to developing the vocabulary through this method

**Text Books:**

- 1 *Basic English Grammar (Third Edition)* by Betty Schramper Azar (Pearson Longman, 2005)
- 2 *Presentations Plus* by David A Peoples (John Wiley & Sons, 1992)
- 3 *Word Power Made Easy (Revised and Expanded Indian Edition)* by Norman Lewis (Goyal Publishers, 2012)


**Reference Books:**

- 1 *English Grammar in Use* by Raymond Murphy (Cambridge)
- 2 *High School English Grammar & Composition* by Wren & Martin (Chand & Co)
- 3 *slideology* by Nancy Duarte (O'Reilly Media)

**E-Resources:**

- 1 Public Speaking 101: <http://www.mastersincommunication.com/public-speaking/>
- 2 Toastmasters International: <https://www.toastmasters.org/>
- 3 TED – Ideas worth spreading: <https://www.ted.com/>

## ANNEXURE - IV

 <b>NAGARJUNA COLLEGE OF ENGINEERING &amp; TECHNOLOGY, BANGALORE</b> <b>CALENDAR OF EVENTS –III,V&amp; VII Semester Aug-Nov 2015(Odd Semester)-BE</b>										
Date	Day	W/H	NTD	Events		Date	Day	W/H	NTD	Events
01-08-15	SAT			Registration for III,V and VII sem		29-09-15	TUE		41	
03-08-15	MON		1	Commencement of Classes for III, V and VII Sem		30-09-15	WED		42	
04-08-15	TUE		2			01-10-15	THU		43	
05-08-15	WED		3			02-10-15	FRI	H		Mahatma Gandhi Jayanthi
06-08-15	THU		4			03-10-15	SAT	H		First Saturday
07-08-15	FRI		5			05-10-15	MON		44	
08-08-15	SAT		6	Monday Time Table		06-10-15	TUE		45	
10-08-15	MON		7			07-10-15	WED		46	
11-08-15	TUE		8			08-10-15	THU		47	
12-08-15	WED		9			09-10-15	FRI		48	
13-08-15	THU		10			10-10-15	SAT		49	Tuesday Time Table
14-08-15	FRI		11			12-10-15	MON	H		Mahalaya Amavasye
15-08-15	SAT	H		Independence day		13-10-15	TUE		50	
17-08-15	MON		12			14-10-15	WED		51	
18-08-15	TUE		13			15-10-15	THU			Second Internal Test ( 25 TD)
19-08-15	WED		14			16-10-15	FRI			
20-08-15	THU		15			17-10-15	SAT			
21-08-15	FRI		16			19-10-15	MON		52	
22-08-15	SAT		17	Friday Time Table		20-10-15	TUE		53	
24-08-15	MON		18			21-10-15	WED		54	
25-08-15	TUE		19			22-10-15	THU	H		Aayudha Pooja/ Mahanavami
26-08-15	WED		20			23-10-15	FRI	H		Vijaya Dashami

## Self Study Report - 2015

27-08-15	THU		21		24-10-15	SAT	H		Moharam
28-08-15	FRI	H		Varamahalakshmi Vrata	26-10-15	MON		55	
29-08-15	SAT	H		Fifth Saturday	27-10-15	TUE	H		Valmiki Jayanthi
31-08-15	MON		22		28-10-15	WED		56	Student Feedback-2(28th -30th)
01-09-15	TUE		23		29-10-15	THU		57	
02-09-15	WED		24		30-10-15	FRI		58	
03-09-15	THU		25		31-10-15	SAT		59	Wednesday Time Table / PTM - 2
04-09-15	FRI		26		02-11-15	MON		60	
05-09-15	SAT		27	Founders' Day & Teachers' Day, Tuesday Time Table	03-11-15	TUE		61	
07-09-15	MON			First Internal Test( 27TD)	04-11-15	WED		62	
08-09-15	TUE				05-11-15	THU		63	
09-09-15	WED				06-11-15	FRI		64	
10-09-15	THU		28		07-11-15	SAT		65	Thursday Time Table
11-09-15	FRI		29		09-11-15	MON		66	
12-09-15	SAT		30	Wednesday Time Table	10-11-15	TUE	H		Naraka Chaturdashi
14-09-15	MON		31	Student Feedback - 1 (14th - 18th)	11-11-15	WED	H		Link Holiday
15-09-15	TUE		32		12-11-15	THU	H		Balipadyami-Deepavali
16-09-15	WED	H		Swarnagouri Vrata	13-11-15	FRI		67	
17-09-15	THU	H		Sri Varasiddi Vinayaka Vrata	14-11-15	SAT		68	Thursday Time Table
18-09-15	FRI		33		16-11-15	MON			Third Internal Test( 17TD)
19-09-15	SAT		34	PTM - 1 , Thursday Time Table	17-11-15	TUE			
21-09-15	MON		35		18-11-15	WED			
22-09-15	TUE		36		19-11-15	THU		69	
23-09-15	WED		37		20-11-15	FRI		70	Last working Day

## Self Study Report - 2015

24-09-15	THU	H		Bakrid		23-11-15	MON			Commencement of Lab Examination
25-09-15	FRI		38			07-12-15	MON			Commencement of Theory Examination
26-09-15	SAT		39	Friday Time Table						
28-09-15	MON		40							

## ANNEXURE – V

## Proceedings of Governing Body Meeting

**GOVERNING COUNCIL MEMBERS**

Sl. No	Name of the member with Address	Contact No.	Profession	Designation
1.	Sri J.V.Ranga Raju	080-65372605	Secretary , NES, Bangalore	Chairman
2.	Sri. K. V. Sekhar Raju	080-65372605	President , NES, Bangalore.	Member
3.	Sri. J. V. Gopala Krishnam Raju	080-65372605	Joint Secretary, NES, Bangalore	Member
4.	Sri J. Chaitanya Varma	080-65372605	CEO, NES, Bangalore	Member
5.	Dr. K. S. Deshikachar	080-65372605	Director, NES, Bangalore	Member
6.	AICTE (Ex- Officio)	080- 22205979	SWRO, AICTE, Bangalore	Member
7.	Dr. V D Mytri	9845020846	Principal, Appa Institute of Engg & Tech	Member
8.	Director, DTE	080-22204928	Govt. of Karnataka (Ex-officio), Bangalore	Member
9.	Dr. V. S. Raju	09849551600	Former Director, IIT, New Delhi. (Educationist)	Member
10.	Sri. C. Prem Chandra Reddy	080- 22253309	Executive Vice President, NCCL, Bangalore (Industrialist)	Member
11.	Dr. N. G. S. Udupa,	91- 9448969937	Vice Principal, NCET, Bangalore	Member
12.	Dr. P. Harisha	91- 9845248463	Dean , NCET, Bangalore.	Member
13.	Dr. S. G. Gopala Krishna	91- 94481 20241	Principal, NCET, Bangalore	Member Secretary

**Proceedings of the Governing Council meeting held on 03.02.2014 at  
college premises.**

**MEMBERS PRESENT:**

1. Sri J.V.Ranga Raju	Chairman
2. Sri. K. V. Sekhar Raju	Member
3. Sri J. Chaitanya Varma	Member
4. Dr. K. S. Deshikachar	Member
5. Dr. V. S. Raju	Member
6. Sri. C. Prem Chandra Reddy	Member
7. Dr. N. G. S. Udupa	Member
8. Dr. P. Harisha	Member
9. Dr. S. G. Gopala Krishna	Member Secretary

**MEMBERS ABSENT:**

1. Sri. J. V. Gopala Krishnam Raju	Member
2. AICTE (Ex- Officio)	Member
3. Govt. of Karnataka (Ex-officio),	Member
4. Dr. V D Mytri	Member

AGENDA

- 1 Review of proceedings of previous meeting
- 2 Review of Results
- 3 Technical talk on MEMS devices & applications
- 4 Quiz competition in CSE department
- 5 Meeting with Mr. Veerappaji, Manager, Wipro
- 6 Organizing 16<sup>th</sup> Inter collegiate VTU football tournament
- 7 Inauguration of Photography Club
- 8 Organizing Latex workshop in ISE department
- 9 VTU Inter-zonal Football matches
- 10 UG & PG Competition
- 11 Organizing IKYA-2014
- 12 Blood donation camp
- 13 Final year Project exhibition.
- 14 Any other matter with permission of the chair.

The Principal Dr. S. G. Gopala Krishna welcomed the members of the Governing council and read out a brief report of the college.

The topics listed under Agenda were discussed in detail and the following resolutions were passed:

**Agenda -1 - The proceedings of the previous meeting were reviewed and ratified.**

**Agenda -2 - Improvement of Results.**

1. The Chairman suggested that the university examination results of the students needs to be improved.
2. Teachers were suggested to take extra classes for difficult subjects.

**Agenda -3 - Technical talk on MEMS devices & applications.**

1. It was resolved to conduct the Technical talk on MEMS devices & applications in the department of E&CE

**Agenda -4 - Quiz competition in CSE department.**

1. It was resolved to conduct Quiz competition in the department of CSE for the benefit of students

**Agenda -5 - Discussions with Mr. Veerappaj, Manager – Wipro manager.**

1. Resolved to permit the Director, Principal & HOD – CSE to have a discussion with Mr. Veerappaj, Manager – Wipro manager at NES for MTL.

**Agenda -6 - 16<sup>th</sup> Inter collegiate VTU football matches.**

1. Department of Physical education has submitted a proposal to conduct 16<sup>th</sup> Inter collegiate VTU football matches at college premises.
2. The proposal was considered favourably and it was resolved to permit Physical Education Director to conduct the 16<sup>th</sup> Inter collegiate VTU football matches.

**Agenda -7 – Formation of Photography club**

1. The Principal had submitted a proposal to Management to establish a Photographers club at college to encourage the hidden talents of students in Photography field.
2. The proposal was considered favourably & permitted to establish Photographers club.

**Agenda -8 - Latex workshop in ISE department**

1. HOD-ISE had submitted a proposal to conduct a one day workshop on Latex for the benefit of students.
2. The proposal was considered favourably and it was resolved to permit HOD - ISE to conduct the LATEX workshop in ISE department.

**Agenda -9 - VTU Inter-zonal Football matches**

1. Department of Physical education has submitted a proposal to conduct VTU Interzonal football matches at college premises.
2. The proposal was considered favourably and it was resolved to permit Physical Education Director to conduct VTU Interzonal football matches.

### **Agenda -10 – Bizzmanthon Management Fest.**

1. HOD-MBA had submitted a proposal to conduct Competition (Bizzmanthon) for the benefit of U.G & P.G students.
2. The proposal was considered favourably and it was resolved to permit HOD MBA to conduct the Competition (Bizzmanthon) for UG & P.G students.

### **Agenda -11 – Organizing IKYA-2014.**

1. The Principal had submitted a proposal to Management to conduct IKYA-2014 to encourage hidden talents of students in various cultural aspects.
2. The proposal was considered favourably and it was resolved to permit Principal to conduct the IKYA-2014.

### **Agenda -12 –Blood donation Camp.**

1. The Principal had submitted a proposal to Management to conduct Blood donation Camp at college premises as a Social activity.
2. The proposal was considered favourably and it was resolved to permit Principal to conduct the Blood camp.

### **Agenda -13 –Final year Project exhibition.**

1. The Principal & HODs have submitted a proposal to conduct Project exhibition of Final year students at college premises to encourage students talent.
2. The proposal was considered favourably and it was resolved to permit Principal & HODs to conduct the Final year Project exhibition at college premises.

### **Agenda – 14 – Purchase of books**

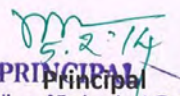
1. Books purchased upto January 2014 have been approved & ratified.

### **Agenda – 16 – Purchase of Computers**

The purchase of Computers made upto January 2014 have been approved & ratified.

### **Agenda -17 - Any other matter with permission of the chair**

The meeting concluded with a Vote of Thanks by the Principal.

  
**Principal**  
Nagarjuna College of Engineering & Technology  
Devanahalli (Tq) Bangalore (Dt), -Pin: 562110

Proceedings on the Governing council meeting held on 22.05.2014 at College Premises.

**MEMBERS PRESENT:**

1.	Sri J.V.Ranga Raju	Chairman
2.	Sri. K. V. Sekhar Raju	Member
3.	Sri J. Chaitanya Varma	Member
4.	Dr. K. S. Deshikachar	Member
5.	Dr. V. S. Raju	Member
6.	Sri. C. Prem Chandra Reddy	Member
7.	Dr. N. G. S. Udupa	Member
8.	Dr. P. Harisha	Member
9.	Dr. S. G. Gopala Krishna	Member Secretary

**MEMBERS ABSENT:**

1.	Sri. J. V. Gopala Krishnam Raju	Member
2.	AICTE (Ex- Officio)	Member
3.	Govt. of Karnataka (Ex-officio),	Member
4.	Sri. C. Prem Chandra Reddy	Member
5.	Dr. V D Mytri	Member

**AGENDA**

- 1 Review of proceedings of previous meeting.
- 2 General lokasabha elections at college
- 3 10<sup>th</sup> Graduation day
- 4 International conference in Mechanical Engineering department
- 5 Mission 10000 Empower for VTU-Civil graduates
- 6 Any other matter with permission of the chair.

The Principal Dr. S. G. Gopala Krishna welcomed the members of the Governing council and read out a brief report of the college.

The topics listed under Agenda were discussed in detail and the following resolutions were passed:

**Agenda -1 - The proceedings of the previous meeting were reviewed and ratified.**

1. The Chairman had suggested that the university examination results of the students needs to be improved.
2. As per Chairman's direction Extra classes were conducted for difficult subjects

**Agenda -2 – General lokasabha elections counting at college.**

1. The Government of Karnataka had submitted a proposal to Management for conduction of Loksabha elections counting at college.
2. The proposal was considered favourably and it was resolved to permit General Lokasabha elections counting at college.

**Agenda -3 –10<sup>th</sup> Graduation day.**

1. The Principal & HODs had submitted a proposal to Management for conduction of 10<sup>th</sup> Graduation day at college.
2. The proposal was considered favourably and it was resolved to permit Principal & HODs to conduct 10<sup>th</sup> Graduation day at college.

**Agenda -4 – International conference in Mechanical Engineering department.**

1. The Principal & HOD – Mechanical Engineering had submitted a proposal to Management for conduction of International conference.
2. The proposal was considered favourably and it was resolved to permit Principal & HOD – Mechanical to conduct International Conference at college.

**Agenda -5 –Mission 10000 Empower for VTU-Civil graduates.**

1. The Principal & HOD – Civil Engineering had submitted a proposal to Management for conduction of Mission 10000 Empower for VTU-Civil Engineering graduates for the benefit of students. This programme is being funded by VTU.
2. The proposal was considered favourably and it was resolved to permit Principal & HOD – Civil Engineering to conduct International Conference at college.

**Agenda – 6 – Purchase of books**

2. Books purchased during the period January to April 2014 have been approved & ratified.

**Agenda -7 - Any other matter with permission of the chair**

The meeting concluded with a Vote of Thanks by the Principal.

  
**PRINCIPAL**  
Principal  
Nagarjuna College of Engineering & Technology  
Devanahalli (Tq) Bangalore (Dt), Pin: 562110

**Proceedings of the Governing Council meeting held on 04/07/2014**

**MEMBERS PRESENT:**

1. Sri J.V.Ranga Raju	Chairman
2. Sri. K. V. Sekhar Raju	Member
3. Sri J. Chaitanya Varma	Member
4. Dr. K. S. Deshikachar	Member
5. AICTE (Ex- Officio)	Member
6. Sri. C. Prem Chandra Reddy	Member
7. Dr. N. G. S. Udupa	Member
8. Dr. P. Harisha	Member
9. Dr. S. G. Gopala Krishna	Member Secretary

**MEMBERS ABSENT:**

1. Sri. J. V. Gopala Krishnam Raju	Member
2. Dr. V. S. Raju	Member
3. DTE (Ex-officio),	Member
4. Dr. V D Mytri	Member

### Agenda:

1. Review of proceedings of previous meeting.
2. Harmonix Global Foundation FDP
3. 02 week training program under VTU mission Empowerment 10000 on Design of Composite structures in Mechanical department.
4. One day Workshop in Civil Engineering on Research avenues in M.Tech Structures & Construction Technology.
5. ISHRAE student chapter.
6. Founders day
7. Celebration of Engineers day
8. Installation ceremony of ISHRAE students chapter
9. Interactive meeting with Shri. Jyoti Prakash Mirji
10. MBA Business competition
11. One day workshop in Innovative construction Techniques in Civil Engineering department
12. Purchase of Books.
13. Any other matter with permission of the chair.

### Proceedings

**Agenda -1 - The proceedings of the previous meeting were reviewed and ratified.**

**Agenda -2 - Harmonix Global Foundation FDP.**

1. The Director & Principal had submitted a proposal for signing MOU with Harmonix Global Foundation & to conduct FDP for the benefit of faculties to improve their life skills.
2. The proposal was considered favourably and it was resolved to permit the Director & principal to sign MOU with Harmonix Global Foundation & to conduct FDP for the benefit of faculties to improve their life skills.

**Agenda -3 - 02 week training program under VTU mission Empowerment 10000 on Design of Composite structures in Mechanical department.**

1. Principal & HOD Mechanical had submitted a proposal to Management to conduct 02 week training program under VTU mission Empowerment 10000 on Design of Composite structures in Mechanical department.
2. The proposal was considered favourably and it was resolved to conduct 02 week training program under VTU mission Empowerment 10000 on Design of Composite structures in Mechanical department.

**Agenda -4 - One day Workshop in Civil Engineering on Research avenues in M.Tech Structures & Construction Technology.**

1. HOD Civil Engineering had submitted a proposal to conduct One day Workshop in Civil Engineering on Research avenues in M.Tech Structures & Construction Technology.
2. The proposal was considered favourably and it was resolved to permit HOD Civil Engineering to conduct One day Workshop in Civil Engineering on Research avenues in M.Tech Structures & Construction Technology.

**Agenda -5 -ISHRAE student chapter**

1. HOD Mechanical Engineering had submitted a proposal to conduct ISHRAE student chapter.
2. The proposal was considered favourably and it was resolved to permit HOD Mechanical Engineering to conduct ISHRAE student chapter.

**Agenda -6 - Founders day**

1. Principal had submitted a proposal to conduct Founders day on 05.09.2014
2. The proposal was considered favourably and it was resolved to permit Principal to conduct the Founders day.

**Agenda -7 – Celebration of Engineers day**

1. The Principal had submitted a proposal to conduct Engineers day in college premises.
2. The proposal was considered favourably and it was resolved to Conduct Engineers day in the College.

**Agenda -8 – Installation ceremony of ISHRAE students chapter**

1. The HOD Mechanical Engineering had submitted a proposal to install ISHRAE chapter in college premises.
2. The proposal was considered favourably and it was resolved to install ISHRAE chapter in college premissis.

**Agenda -9 – Interactive meeting with Shri. Jyoti Prakash Mirji**

It is proposed to conduct an interactive meeting with Sri Jyoti Prakash Mirji, Retd Police Commissioner for the benefit of all senior staff members. The proposal is accepted.

**Agenda -10 –MBA Business competition**

1. The HOD MBA has submitted a proposal to conduct a MBA Business competition for the benefit of the students.
2. The proposal was considered favourably and it was resolved to conduct MBA Business competition for the benefit of students.

**Agenda -11 –One day workshop in Innovative construction Techniques in Civil Engineering.**


1. The HOD Civil Engineering has submitted a proposal to conduct a One day workshop in Innovative Techniques in Civil Engineering.
2. The proposal was considered favourably and it was resolved to conduct One day workshop in Innovative Techniques in Civil Engineering for the benefit of students.

**Agenda – 12 – Purchase of books**

1. Books purchased upto June 2014 have been approved & ratified.

**Agenda -13 - Any other matter with permission of the chair**

The meeting concluded with a Vote of Thanks by the Principal

  
**PRINCIPAL**  
Principal  
Nagarjuna College of Engineering & Technology  
Devanahalli (Tq) Bangalore (Dt).-Pin: 562110

## ANNEXURE – VI

## Audit Reports

2014


2	CONTINUATION SHEET
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**P. MOHAN RAJU & CO.**  
CHARTERED ACCOUNTANTS

**ANNEXURE**  
**STATEMENT OF PARTICULARS**

1. Application of income for charitable or religious purposes.

<p>1. Amount of income of the previous year applied to charitable or religious purposes in India during that year.</p> <p>2. Whether the trust/institution has exercised the option under clause (2) of the Explanation to section 11 (1)? If so, the details of the amount of income deemed to have been applied to charitable or religious purposes in India during the previous year</p> <p>3. Amount of income accumulated or set apart /finally set apart for application to charitable or religious purposes, to the extent it does not exceed 25 per cent of the income derived from property held under trust wholly /in part only for such purposes.</p> <p>4. Amount of income eligible for exemption under section 11(1)(c) [Give details]</p> <p>5. Amount of income, in addition to the amount referred to in item 3 above, accumulated or set apart for specified purposes under section 11(2)</p> <p>6. Whether the amount of income mentioned in item 5 above has been invested or deposited in the manner laid down in section 11(2)(b)? If so, the details thereof.</p> <p>7. Whether any part of the income in respect of which an option was exercised under clause (2) of the Explanation to section 11(1) in any earlier year is deemed to be income of the previous year under section 11(1B)? If so, the details thereof</p> <p>8. Whether, during the previous year, any part of income accumulated or set apart for specified purposes under section 11(2) in any earlier year: -</p>	<p>Revenue Exp – 31,98,56,960-00 Capital Exp – 6,97,24,687-00</p> <p>NO</p> <p>NIL</p> <p>NIL</p> <p>NIL</p> <p>Not Applicable</p> <p>NIL</p>
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**P. MOHAN RAJU & CO.****CHARTERED ACCOUNTANTS**

4

CONTINUATION SHEET

5. Whether any share, security, or other property was purchased by or on behalf of the trust/institution during the previous year from any such person? If so, give details thereof together with the consideration paid
6. Whether any share, security, or other property was sold by or on behalf of the trust/institution during the previous year to any such person? If so, give details thereof together with the consideration received.
7. Whether any income or property of the trust/institution was diverted during the previous year in favour of any such person? If so, give details thereof together with the amount of income or value of property so diverted.
8. Whether the income or property of the trust/institution was used or applied during the previous year for the benefit of any such person in any other manner? If so, give details.
9. Whether the Trust/Institution has exercised the option under clause (2) of the Explanation to Sec11(1)? If so the details of the amount of Income deemed to have been applied to the charitable or Religious purpose in India during the previous year,

NIL

NIL

NIL

NIL

NO



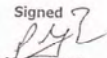
**P. MOHAN RAJU & CO.**

CHARTERED ACCOUNTANTS

III. Investment held at any time during the previous year(s) in concerns in which persons referred to in section 13(3) have a substantial interest.

Sl. No	Name and address of the concern	Where the concern is a company No and class of shares held	Nominal value of the investment	Income from the investment	Whether the amount in Col. 4 exceeded 5% of the capital of the concern during the previous year-say. Yes/No
1	2	3	4	5	6
		---NIL---			
Total			0	0	



Signed  
  
P. Mohan Raju  
Chartered Accountant  
Mem.No. 202947

2013

**P. MOHAN RAJU & CO.**  
CHARTERED ACCOUNTANTS



# 27, 2nd Main Road, G.D. Park Ext,  
(Opp. Rd. of Chowdaiah Memorial Hall)  
Vyalikaval, Bangalore-3  
(O) 23313577 Fax : 080-23561037,  
E-mail : mohanrajuco@yahoo.com

**FORM NO. 10B**  
[See Rule 17B]

**Audit Report under section 12A (b) of the Income-tax Act, 1961 in the case of  
Charitable or religious trusts or institutions**

I/We have examined the balance sheet of **M/S NAGARJUNA EDUCATION SOCIETY** [Name of the trust or institution] as at **31<sup>st</sup> March 2013** and the **Income & Expenditure Account** for the year ended on those dates which are in agreement with the books of account maintained by the said Trust or institution.

I/We have obtained all the information and explanations, which to the best of my/our knowledge and belief were necessary for the purposes of the audit. In my/our opinion, proper books of account have been kept by the above-named trust / institution so far as appears from my/our examination of the Boos.

In my/our opinion and to the best of my/our information, and according to information given to me/us the said accounts give a true and fair view: -

(i) In the case of the **Balance Sheet, of the state of affairs** of the above named trust/institution as at **31<sup>st</sup> March 2013** and

(ii) In the case of the **Income & Expenditure Account, of Excess of Expenditure over Income** for the year ending on **31.03.2013**

The prescribed particulars are annexed hereto

Place **Bangalore**

Date **26-Sep-2013**



For **P. MOHAN RAJU & CO.,**  
CHARTERED ACCOUNTANTS



(P. Mohan Raju)  
Proprietor  
Mem.No. 202947

# 396/24, 'OOLIGA COMPLEX' Near 8th Cross, Sampige Road, Malleswaram, Bangalore-03

P. Mohan Raju &amp; Co.

CHARTERED ACCOUNTANTS

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CONTINUATION SHEET

(b) has ceased to remain invested in any security referred to in section 11(2)(b)(i) or deposited in any account referred to in section 11(2)(b)(ii) or section 11(2)(b)(iii) or

NIL

(c) has not been utilized for purposes for which It was accumulated or set apart during the period for which it was to be accumulated or set apart, or in the year immediately following the expiry thereof? If so, the details thereof.

NIL

II. Application or use of income or property for the benefit of persons referred to in section 13 [3].

1. Whether any part of the income or property of the trust/institution was lent, or continues to be lent in the previous year to any person referred to in section 13(3) [hereinafter referred to in this Annexure as such person]? If so, give details of the amount, rate of interest charged and the nature of security, if any

NIL

2. Whether any land, building or other property of the trust/institution was made, or continued to be made, available for the use of any such person during the previous year? If so, give details of the property and the amount of rent or compensation charged, if any.

NIL

3. Whether any payment was made to any such person during the previous year by way of salary allowance or otherwise? If so, give details.

As per Annexure

4. Whether the services of the trust/institution were made available to any such person during the previous year? If so, give details thereof together with remuneration or compensation received, if any.

NIL



**P. Mohan Raju & Co.**

CHARTERED ACCOUNTANTS

4

CONTINUATION SHEET

5. Whether any share, security, or other property was purchased by or on behalf of the trust/institution during the previous year from any such person? If so, give details thereof together with the consideration paid
6. Whether any share, security, or other property was sold by or on behalf of the trust/institution during the previous year to any such person? If so, give details thereof together with the consideration received.
7. Whether any income or property of the trust/institution was diverted during the previous year in favour of any such person? If so, give details thereof together with the amount of income or value of property so diverted.
8. Whether the income or property of the trust/institution was used or applied during the previous year for the benefit of any such person in any other manner? If so, give details.
9. Whether the Trust/Institution has exercised the option under clause (2) of the Explanation to Sec11(1)? If so the details of the amount of Income deemed to have been applied to the charitable or Religious purpose in India during the previous year,

NIL

NIL

NIL

NIL

NO



P. Mohan Raju & Co.  
CHARTERED ACCOUNTANTS

5

CONTINUATION SHEET

**III. Investment held at any time during the previous year(s) in concerns in which persons referred to in section 13(3) have a substantial interest.**

Sl. No	Name and address of the concern	Where the concern is a company No and class of shares held	Nominal value of the investment	Income from the investment	Whether the amount in Col. 4 exceeded 5% of the capital of the concern during the previous year- say, Yes/No
1	2	3	4	5	6
		---NIL---			
Total			0	0	

For P. MOHAN RAJU & CO.  
Chartered Accountants



(P. MOHAN RAJU)  
Proprietor  
Signed

P. Mohan Raju  
Chartered Accountant  
Mem.No. 202947

## ANNEXURE


Details of payment made to persons specified U/s 13(3) of the Income Tax act - Read with iter  
No.3 of Part II of Form 10B

Sl.No	Name of the Party	Nature of Interest	Nature of Payment	Amt. Paid/credited
1	Sri. J.V.Ranga Raju	Secretary	Lease Rent on Land given to Nagarjuna College of Engg & Technology, Devanahalli	1,350,465.00
2	M/s.Jampana Constructions Pvt.Ltd	Specified persons are share holder/Director in the Company	Building Lease Rent given to Nagarjuna Vidyanikethan, Yelahanka	7,200,000.00



2012

P. MOHAN RAJU & CO.  
CHARTERED ACCOUNTANTS



# 27, 2nd Main Road, G.D. Park Ext.  
(Opp. Rd. of Chowdalah Memorial Hall)  
Vyalikaval, Bangalore-3  
(O) 23313577 Fax : 080-23561037,  
E-mail : mohanrajuco@yahoo.com

**FORM NO. 10 B.**  
(See Rule 17B)

**Audit Report Under Section 12A(b) of the Income-Tax Act, 1961, in the case of Charitable or Religious Trusts or Institutions.**

I/We have examined the Balance Sheet of NAGARJUNA EDUCATION SOCIETY as at 31.3.2012 and the **Income and Expenditure Account** for the year ended on that date which are in agreement with the books of account maintained by the said Society.

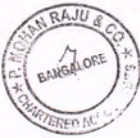
I/We have obtained all the information and explanations which to the best of my knowledge and belief were necessary for the purposes of the audit. In my/our opinion, proper books of account have been kept by the above named trust/institution so far as appears from my/our examination of the books.

In my/our opinion and to the best of my/our information, and according to information given to me/is the said accounts give a true and fair view –


- (i) in the case of the **Balance Sheet of the state of affairs** of the above named Society as at 31.3.2012 and
- (ii) in the case of the **Income & Expenditure Account**, of the **Excess of over Income over Expenditure** for the year ending on that date.

The prescribed particulars are annexed hereto.

Place:Bangalore  
Date: 27-09-2012



For P MOHAN RAJU & CO.  
CHARTERED ACCOUNTANTS

  
(P. Mohan Raju)  
Mem.No.202347  
Proprietor.

# 395/24 'OOLIGA COMPLEX' Near 8th Cross, Sampige Road, Malleswaram, Bangalore-03

P. MOHAN RAJU & CO.  
CHARTERED ACCOUNTANTS

CONTINUATION SHEET

Application or use of income or property for the benefit  
Of persons referred to in section 13(3).

Sl.No	Particulars	Remarks
1.	Whether any part of the income or property of the "trust/institution" was lent, or continues to be lent, in the previous year to any person referred to in section 13(3) (hereinafter referred to in the Annex. as such person)? If so, give details of the amount, rate of interest charged and the nature of security, if any.	NIL
2.	Whether the trust/institution has exercised the option under clause (2) of the Explanation to Sec. 11(1)? If so the details of the amount of income deemed to have been applied to charitable or religious purposes in India during the previous year.	No.
3.	Whether any land, building or other property of the "trust/institution" was made, or continued to be made, available for the use of any such person during the previous year? If so, give details of the property and the amount of rent or compensation charged, if any.	NIL
4.	Whether any payment was made to any such Person during the previous year by way of salary, allowance or otherwise? If so, give details.	As per Annexure Enclosed
5.	Whether the services of the trust/institution were made to any such person during the previous year? If so, give details thereof together with remuneration or compensation received, if any.	NIL
6.	Whether any share, security or other property was purchased by or behalf of the "trust/institution" during the previous year from any such person? If so give details thereof together with the consideration paid thereof.	Nil
7.	Whether any share, security or other property was sold by or on behalf of the "trust/institution" during the previous year to any such person? If so, give details thereof together with the consideration received.	NIL
8.	Whether any income or property of the "trust/institution" was diverted during the previous year in favour of any such person? If so, give details thereof together with the amount of income or value of property so diverted.	NIL
9.	Whether the income or property of the "trust/institution" was used or applied during the previous year for the benefit of any such person in any other manner? If so, give details.	No

\* Strike out whichever is not applicable.



P. MOHAN RAJU & CO.  
CHARTERED ACCOUNTANTS

CONTINUATION SHEET

III. Investments held at any time during the previous year(s) in concerns in which persons referred to in section 13(3) have a substantial interest.

Sl. No.	Name and Address of the Concern	Where the concern is a company the number and class of shares held	Nominal Value of Investment	Income from Investment	Whether the amount in column 4 exceeded 5% of the capital of the concern during the prev. year - Say Yes / No.
		-----Nil-----			



*[Signature]*  
Signed.  
Accountant  
P. Mohan Raju.  
Mem.No.202847.

P. MOHAN RAJU & CO.  
CHARTERED ACCOUNTANTS

CONTINUATION SHEET

### NAGARJUNA EDUCATION SOCIETY

#### ANNEXURE TO FORM 10B :


Details of ayment made to persons specified U/s 13(2) of the Income Tax act - Read with item No.4 of Part II of Form 10B

Sl.No	Name of the Party	Nature of Interest	Nature of Payment	Amt. Paid/credited
1	Sri. J.V.Ranga Raju	Secretary	Lease Rent on Land Vehicle Maintenance@15000/- from April 11 to March 12	1227695
2	J. Chaitanya Varma	Member in the Society	School Building Lease advance paid to the company	180000
3	Jampana Copnstruction Pvt. Ltd.	Members are shareholders in the company		7500000



2011

**P. MOHAN RAJU & CO.**  
CHARTERED ACCOUNTANTS



# 27, 2nd Main Road, G.D. Park Ext.  
(Opp. Rd. of Chowdiah Memorial Hall)  
Vyalikaval, Bangalore-3  
(O) 23313577 Fax : 080-23581037,  
E-mail : mohanrajuco@yahoo.com

**FORM NO. 10 B.**  
(See Rule 17B)

**Audit Report Under Section 12A(b) of the Income-Tax Act, 1961, in the case of Charitable or Religious Trusts or Institutions.**

I have examined the Balance Sheet of **NAGARJUNA EDUCATION SOCIETY** as at 31.3.2011 and the **Income and Expenditure Account** for the year ended on that date which is in agreement with the books of account maintained by the said Society.


I have obtained all the information and explanations which to the best of my knowledge and belief were necessary for the purposes of the audit. In my opinion, proper books of account have been kept by the above named trust/institution so far as appears from my/our examination of the books.

In my opinion and to the best of my information, and according to information given to me is the said accounts give a true and fair view –

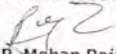
- (i) In the case of the **Balance Sheet of the state of affairs** of the above named Society as at 31.3.2011 and
- (ii) In the case of the **Income & Expenditure Account**, of the **Excess of over Income over Expenditure** for the year ending on that date.

The prescribed particulars are annexed hereto.

Place: Bangalore  
Date: 22-09-2011



For P MOHAN RAJU & CO.  
CHARTERED ACCOUNTANTS

  
(P. Mohan Raju)  
Mem.No.202947  
Proprietor.

# 396/24, 'OOLIGA COMPLEX' Near Rth Cross, Sampige Road, Malleshwara, Bangalore-44

P. MOHAN RAJU & CO.  
CHARTERED ACCOUNTANTS

CONTINUATION SHEET

**ANNEXURE**  
**STATEMENT OF PARTICULARS**

**I. Application of Income for Charitable or Religious Purposes.**

Sl.No	Particulars	Remarks
1.	Amount of income of the previous year applied to Charitable or religious purposes in India during that year.	Revenue Exp : 17,69,01,957.00 Capital ExpRs.:10,03,92,396.00 Repayment of Principal RS. : 2,00,00,000.00
2.	Whether the trust/institution has exercised the option under Clause (2) of the Explanation to Sec.11 (1)? If so the details of the amount of income deemed to have been applied to charitable or religious purposes in India during the previous year.	No.
3.	Amount of income accumulated or set apart/ finally set apart for application to the extent it does not exceed 25 percent of the Income derived from property held under trust wholly/in part only for such purposes.	NIL.
4.	Amount of income eligible for exemption under Section 11(1)(c) (Give details).	NIL.
5.	Amount of income, in addition to the amount referred to in item 3 above, accumulated or set apart for specified purposes under section 11(2).	NIL.
6.	Whether the amount of income mentioned in item 5 above has been invested or deposited in the manner laid down in section 11(2)(b)? If so, the details thereof.	NIL.
7.	Whether any part of the income in respect of Which an option was exercised under clause (2) of the Explanation to section 11(1) in any earlier year is deemed to be income of the previous year under section 11(1B)? If so, the details thereof.	Not Applicable
8.	Whether, during the previous year, any part of income accumulated or set apart for specified purposes under section 11(2) in any earlier year -	
a.	has been applied for purposes other than charitable or religious purposes or has ceased to be accumulated or set apart for application thereto, or	NIL.
b.	has ceased to remain invested in any security referred to in section 11(2)(b)(i) or deposited in any account referred to in section 11(2)(b)(ii) or section 11(2)(b)(iii), or	NIL.
c.	has not been utilized for purposes for which it was accumulated or set apart during the period for which it was to be accumulated or set apart, or in the year immediately following the expiry thereof ? If so, details thereof	NIL.



P. MOHAN RAJU & CO.  
CHARTERED ACCOUNTANTS

CONTINUATION SHEET

Application or use of income or property for the benefit  
Of persons referred to in section 13(3).

Sl.No	Particulars	Remarks
1.	Whether any part of the income or property of the *trust/institution was lent, or continues to be lent, in the previous year to any person referred to in section 13(3) (hereinafter referred to in this Annex. as such person) ? If so, give details of the amount, rate of interest charged and the nature of security, if any.	NIL.
2.	Whether the trust/institution has exercised the option under Clause(2) of the Explanation to Sec.11(1)? If so the details of the amount of income deemed to have been applied to charitable or religious purposes in India during the previous year.	No.
3.	Whether any land, building or other property of the *trust/institution was made, or continued to be made, available for the use of any such person during the previous year ? If so, give details of the property and the amount of rent or compensation charged, if any.	NIL.
4.	Whether any payment was made to any such Person during the previous year by way of salary, allowance or otherwise ? If so, give details.	As per Annexure Enclosed
5.	Whether the services of the trust/institution were made to any such person during the previous year? If so, give details thereof together with remuneration or compensation received, if any	NIL.
6.	Whether any share, security or other property was purchased by or behalf of the *trust/institution during the previous year from any such person? If so, give details thereof together with the consideration paid thereof.	Nil.
7.	Whether any share, security or other property was sold by or on behalf of the *trust/institution during the previous year to any such person? If so, give details thereof together with the consideration received.	NIL.
8.	Whether any income or property of the *trust/ institution was diverted during the previous year in favour of any such person ? If so, give details thereof together with the amount of income or value of property so diverted.	NIL.
9.	Whether the income or property of the *trust/ Institution was used or applied during the Previous year for the benefit of any such person in any other manner ? If so, give details.	No

• Strike out whichever is not applicable.



P. MOHAN RAJU & CO.  
CHARTERED ACCOUNTANTS

CONTINUATION SHEET

III. Investments held at any time during the previous year(s) in concerns in which persons referred to in section 13(3) have a substantial interest.

Sl. No.	Name and Address of the Concern	Where the concern is a company the number and class of shares held	Nominal Value of Investment	Income from Investment	Whether the amount in column 4 exceeded 5% of the capital of the concern during the prev. year - Say Yes / No.
		-----Nil-----			



For P. MOHAN RAJU & CO.  
Chartered Accountants

(P. MOHAN RAJU)  
Proprietor

Signed.  
Accountant.  
P. Mohan Raju.  
Mem.No.202947.

## Annexure – VII

### Certificate Course in Electronics & Communication Engineering

1. **Certificate course in SPICE:** (Simulation Program with Integrated Circuit Emphasis) simulations. It is a general purpose open source analog electronics simulator [EX:ORCAD/pSPICE].
2. **Certificate course in HDL:** (Hardware description language) it is an electronic design automation to describe digital & mixed signal system
3. **Certificate course in PIC MC:** (Peripheral interface controller) it is a modified Harvard architecture (MC small computer on signal IC) it contains processor core memory, I/P & O/P (programmable) RAM etc.
4. **Certificate course an ARM processor (cortex series):** (Advanced RISC Machine). It is a 32/64 bit processor enabling for next generation of mobiles, networking and server products.
5. **Certificate course in Verilog:** It is a hardware description language to model electronics system it is used at RTL level of Abstraction
6. **Certificate course in analog VLSI design:** (Design from the scratch). The students will know the concept of analog VLSI design by using VLSI back end tools. Ex: design of analog to digital converter, amplifiers etc.
7. **Certificate course on ASIC:** (Application specific integrated CKT) design. ASIC's are built for particular use rather than intended for general purpose use  
Ex: Digital voice recorder, 7400 icetc
8. **Certificate course on SOC(System on Chip),it is an advanced MC(ARM):** It is also an integrated circuit that integrates all the component of a computer in to a single chip. It may contain analog, digital, mixed signal and radio frequency functions on s single IC.
9. **IMAGE Processing with Matlab:** This course deals with using MATLAB® Image Processing toolbox for image processing, analysis, visualization, and algorithm development. The training covers various topics such as importing and exporting images, pre- and post-processing of images, analysis and visualization of images, and spatial transformations and image registration

- 10. Mat lab fundamentals and Programming Techniques:** This course mainly deals with MATLAB(R) programming techniques. MATLAB(R) is a programming environment for algorithm development, data analysis, visualization, and numerical computation. Using MATLAB(R),
- 11. Advanced Digital Signal Processing with Mat lab:** This course mainly deals with using MATLAB(R) Signal Processing toolbox for Digital signal processing, analysis, visualization, and algorithm development. The training covers various topics such as filter design, windowing techniques, transforms, multi-rate signal processing, statistical signal processing, parametric modeling etc.
- 12. Digital ICs:** Gain a solid understanding of digital operation principles, and then examine more complex entities such as multiplexers and flash memory. Study essential concepts; SPICE verification; and design skills from CMOS ECL and BiCMOS logic to memory design. During the course, students work on a research project that addresses subjects such as embedded SRAM (eSRAM), non-volatile memory and high-speed embedded DRAM.
- 13. DIGITAL LOGIC AND COMPUTER DESIGN:** Number systems, Boolean algebra, K-map two, four variables, logic gates, combinational logic, combinational logic with MSI and LSI. Sequential logic – flip flops, triggering of flip flops, Registers – shift registers, Counters – ripple counter, synchronous counter, Memory – RAM, ROM. etc, Processor logic design – design of arithmetic logic unit, design shift register Advanced Digital Designs – pipe line processing
- 14. Robotics:** Robotics course is designed to understand the trends in Advanced Robotics and to design intelligent robots. The course provides the basics of 8051 Microcontroller, Embedded C Language basics, pin configuration, different types sensors, interfacing techniques, mechanical parts used in robotics and geared DC motors. The course is designed with hands – on experience model
- 15. Certificate course in NANO:** tube it is a nanometer scale tube (Nano Hub)
- 16. CCNA Routing and Switching:** Cisco Certificate Network Associate (CCNA) Routing and Switching is a certification program for entry-level network engineers that helps maximize your investment in foundational networking knowledge and increase the value of your employer's network.
- 17. Cadence:** The goal of the Cadence University Software programs is to grant easy access to leading electronic design automation (EDA) tools for educational

institutions around the world. Our customers rely on skilled engineers entering the work force. As the leader in electronic design automation, we are committed to helping our customers by giving future engineers access to our world-class tools.

**18. Mobile Communications:** This course aims to provide the participants with a comprehensive knowledge on telecom concepts, 2G, and 3G technologies

### Certificate Course in Computer Science and Engineering and Information Science and Engineering

Domain: [Web](#)

Certification course:

1. **Web Designer:** HTML, XHTML, CSS, Adobe Photoshop, Dreamweaver, Flash, XML.
2. **Web Developer:** CGI programming, Perl, PHP, JavaScript, JSP, ASP

Job opportunity: IBM, GOOGLE, Infosys, CTS, Accenture, Banking.

Domain: [Java](#)

Certification course:

1. **Oracle Certification:** Java SE 7, Oracle
2. **Sun Certificate Java Developer :**

Job opportunity: HP, Wipro, Siemens, IBM, GOOGLE, Infosys, CTS, Accenture.

Domain: [Animation and Multimedia](#)

Certification course:

1. **Diploma in Animation:** Maya 3D, Flash, Photoshop
2. **Diploma in Multimedia:** Flash, Photoshop

Job opportunity: Advertising companies, Film studios, News channels, game developing companies.

Domain: [Networking, cyber security, Ethical Hacking](#)

Certification course:

1. **Microsoft Certificate System Engineer(MCSE):**
2. **Cisco Certificate Network Engineer(CCNE):**
3. **Diploma in Cyber security and Ethical Hacking:**

Job opportunity: CICS, IBM, Yahoo, Microsoft, HP, Military, Banking.

Certification course:

- Cloud Computing
- Big Data Analysis

### Certificate Course in Mechanical Engineering

Sl.No	Course Details
1	Computer Aided Engineering softwares CATIA/PRO-E, Ansys, Solid Works, CFD etc
2	Robotics and Automation
3	HVAC
4	Fire and Safety
5	Marine Engineering
6	Petroleum Engineering
7	Aerospace Engineering
8	Automobile Engineering
9	Nano Technology
10	CNC programming
11	MATLAB
12	Vibration and Control
13	Materials Management
14	Power Plant Engineering
15	Solar Energy Technology
16	Cryogenics
17	Piping Engineering
18	Renewable Energy Technologies
19	Fuel Cell
20	Advanced Materials

### Certificate Course in Civil Engineering

Sl.No	Course Details
1	Concrete management
2	Market Survey management
3	Fire Safety in Construction
4	Labour management
5	Safety in construction
6	Bylaws and legal procedures in construction
7	Acoustics
8	Noise pollution and control
9	Foundation management
10	Tender management in construction
11	Material management
12	Store management
13	Pre-fabricated structures
14	Quality control
15	Scaffolding and formworks
16	Green buildings
17	Solid waste management
18	Low cost building technology
19	Earth quake resistant structures
20	Interior design

## ANNEXURE – VIII

## SCHEDULE OF REFRESHER / ORIENTATION PROGRAMME

Orientation Programme for I Year BE Students – 3 <sup>rd</sup> August 2015				
(Venue-Auditorium)				
Group I – CSE & ME Students				
SL.No.	Date	Time	Speaker Name	Topic
1	03-08-2015	10.30 am-11.30 am	Mr. Avinash N - PO	Placement activities
2		11.30 am-12.30 pm	Dr. S. G. Gopalakrishna Principal	Autonomous
		12.30 pm-01.30 pm	LUNCH	
3		01.30 pm-02.30 pm	Dr. G. S. Jayadeva Head ECE	Time Management
4		02.30 pm-03.30 pm	Dr. N. G. S. Udupa, Vice-Principal & Head Mech. Engg. Dept. (PG)	Discipline
Venue - Auditorium				
Faculty co-ordinator Group I: Prof. Sharada T, Head, Dept. of Physics.				
<div style="display: flex; justify-content: space-between;"> <div> <p><i>S. H. S. S. S.</i> Co-ordinator</p> </div> <div> <p><i>M. T. S. S.</i> Principal</p> </div> </div>				
Copy To VP/Dean HODs of EC/CV/CS/IS/ME/PHY/CHE/MAT/P&T/Sports				

# Orientation Programme for I Year BE Students – 1<sup>st</sup> and 2<sup>nd</sup> August 2014

## Group I – CSE & ISE Students

SL.No.	Date	Time	Speaker Name	Topic
1	01-08-2014	12.00 to 1.30 pm (Venue-Auditorium)	Dr. NGS Udupa, Vice-Principal & Head Mech. Engg. Dept. (PG).	Problems faced by fresh students in a professional institute & solutions/suggestions to overcome these problems.
2	02-08-2014	10.00 to 10.30 am	Mr. Avinash N -PO	Placement activities in NCET
3		10.30 to 11.15 am	Prof. Nagendra. N. – HOD,CV(2 <sup>nd</sup> )	Discipline
4		11.15 to 12.15 pm	Mr. Satyanarayana Raju	Smart Study Skills
5		12.15 to 1.00 pm	Prof. Gururaj M -IS	Examination & Office
6		1.00 to 2.00 pm	Lunch Break	
7		2.00 to 2.45 pm	Mr. Basavaraj G.M - EC	Time Management
7		2.45 to 4.00 pm	Mr. Ramesh Gowda V.B -Maths	Time table & Section details

## Venue - CV Block Seminar Hall

Faculty co-ordinator for Group – I: Mr. Ramesh Gowda V.B, Dept. of Mathematics

*P. Harish*  
Co-Ordinator  
(I Year BE Orientation Programme)

*M. T. S. 14*  
Principal

Copy To  
VP/Dean  
HODs of EC/CV/PHY/CHE/MAT/P&T/Sports

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