Nagarjuna College of Engineering & Technology
Department of Computer Science & Engineering
Workshops Organised

1.
Title: Unmanned Vehicle on Moon
Resource Person: Experts from ISRO
Date: 27th August 2016 | 9.00AM to 5.00PM
Total Participants: 40

Goals: The purpose of this workshop was to robotic vehicles provided scientists and engineers with a greater understanding of interplanetary space and lunar geography and played an important role in preparing for a manned landing. Newell not only established the lunar science program and set the direction for space science at NASA, but he also spurred initiatives for communications, weather, and other scientific satellites.

Summary:
Workshop was organised by department of Computer Science & Engineering in association with ISRO. Ms. Nidhi began her presentation by explaining the importance of transmitted more than 17,000 television pictures of the lunar surface. These images revealed details unseen by telescopes on Earth. During the last mission, the pictures were broadcast live on network television, enabling millions of viewers to witness a descent to the Moon.

Nagarjuna College of Engineering & Technology
Department of Computer Science & Engineering
Workshops Organised

2.
Title: Youth Empowerment and Skills
Resource Person: Experts from different colleges
Date: 19th Sep 2016 to 24th Sep 2016 | 9.00AM to 5.00PM
Total Participants: 50

Goals: The purpose of this workshop was to Youth empowerment programs are aimed at creating healthier and higher qualities of life for underprivileged or at-risk youth. The five competencies of a healthy youth are: (1) positive sense of self, (2) self- control, (3) decision-making skills, (4) a moral system of belief, and (5) pro-social connectedness. Developmental interventions and programs have to be anchored on these competencies that define positive outcomes of healthy youth.

Summary:
Workshop was organised by department of Computer Science & Engineering. The presentation began by explaining that children and young people are encouraged to take charge of their lives. They do this by addressing their situation and then take action in order to improve their access to resources and transform their consciousness through their beliefs, values, and attitudes. Youth empowerment aims to improve quality of life. Youth empowerment is achieved through participation in youth empowerment programs. However scholars argue that children's rights implementation should go beyond learning about formal rights and procedures to give birth to a concrete experience of rights.There are numerous models that youth empowerment programs use that help youth achieve empowerment. A variety of youth empowerment initiatives are underway around the world. These programs can be through non-profit organizations, government organizations, schools or private organizations.

Nagarjuna College of Engineering & Technology
Department of Computer Science & Engineering
Workshops Organised

3.
Title: Machine Learning
Resource Person: Experts from different colleges
Date: 27th Sep 2016 | 9.00AM to 5.00PM
Total Participants: 100

Goals: The purpose of this workshop was to problem the simulating (or creating) intelligence has been broken down into sub-problems. These consist of particular traits or capabilities that researchers expect an intelligent system to display. The traits described below have received the most attention.

Summary:
Workshop was organised by department of Computer Science & Engineering. The presentation began by explaining that Artificial intelligence (AI) is intelligence demonstrated by machines, as opposed to natural intelligence displayed by animals including humans. Leading AI textbooks define the field as the study of "intelligent agents": any system that perceives its environment and takes actions that maximize its chance of achieving its goals. Some popular accounts use the term "artificial intelligence" to describe machines that mimic "cognitive" functions that humans associate with the human mind, such as "learning" and "problem solving", however, this definition is rejected by major AI researchers. AI applications include advanced web search engines (e.g., Google), recommendation systems (used by YouTube, Amazon and Netflix), understanding human speech (such as Siri and Alexa), self-driving cars (e.g., Tesla), automated decision-making and competing at the highest level in strategic game systems (such as chess and Go).[citation needed] As machines become increasingly capable, tasks considered to require "intelligence" are often removed from the definition of AI, a phenomenon known as the AI effect. For instance, optical character recognition is frequently excluded from things considered to be AI, having become a routine technology.

Nagarjuna College of Engineering & Technology
Department of Computer Science & Engineering
Workshops Organised

3.
Title: HPC, Cloud, Data mining, and Big Data
Resource Person: Experts from different colleges
Date: 21st April 2017 and 22nd April 2017 | 9.00AM to 5.00PM
Total Participants: 100

Goals: The purpose of this workshop was to introduce Big data as a field that treats ways to analyze, systematically extract information from, or otherwise deal with data sets that are too large or complex to be dealt with by traditional data-processing application software. Data with many fields (columns) offer greater statistical power, while data with higher complexity (more attributes or columns) may lead to a higher false discovery rate.

Summary:
Workshop was organised by department of Computer Science & Engineering. The presentation began by explaining that Current usage of the term big data tends to refer to the use of predictive analytics, user behaviours analytics, or certain other advanced data analytics methods that extract value from big data, and seldom to a particular size of data set. "There is little doubt that the quantities of data now available are indeed large, but that's not the most relevant characteristic of this new data ecosystem." Analysis of data sets can find new correlations to "spot business trends, prevent diseases, combat crime and so on". Scientists, business executives, medical practitioners, advertising and governments alike regularly meet difficulties with large data-sets in areas including Internet searches, fintech, healthcare analytics, geographic information systems, urban informatics, and business informatics. Scientists encounter limitations in e-Science work, including meteorology, genomics, connectomics, complex physics simulations, biology, and environmental research.

Nagarjuna College of Engineering & Technology
Department of Computer Science & Engineering
Workshops Organised

5.
Title: MicroProcessor
Resource Person: Experts from NCET and other colleges
Date: 24th and 25th July 2017 | 9.00AM to 5.00PM
Total Participants: 50

Goals: The purpose of this workshop was to create knowledge regarding computer processor where the data processing logic and control is included on a single integrated circuit, or a small number of integrated circuits. The microprocessor contains the arithmetic, logic, and control circuitry required to perform the functions of a computer's central processing unit. The integrated circuit is capable of interpreting and executing program instructions and performing arithmetic operations.

Summary:
Workshop was organised by department of Computer Science & Engineering. The presentation began by explaining that The microprocessor is a multipurpose, clock-driven, register-based, digital integrated circuit that accepts binary data as input, processes it according to instructions stored in its memory, and provides results (also in binary form) as output. Microprocessors contain both combinational logic and sequential digital logic, and operate on numbers and symbols represented in the binary number system. The integration of a whole CPU onto a single or a few integrated circuits using Very-Large-Scale Integration (VLSI) greatly reduced the cost of processing power. Integrated circuit processors are produced in large numbers by highly automated metal-oxide-semiconductor (MOS) fabrication processes, resulting in a relatively low unit price. Single-chip processors increase reliability because there are much fewer electrical connections that could fail. As microprocessor designs improve, the cost of manufacturing a chip (with smaller components built on a semiconductor chip the same size) generally stays the same according to Rock's law.

Nagarjuna College of Engineering & Technology
Department of Computer Science & Engineering
Workshops Organised

6.
Title: Industrial Interaction with the academy
Resource Person: Experts from Industry
Date: 13.05.2017 | 9.00AM to 5.00PM
Total Participants: 50

Goals: The purpose of this workshop was to create ICT Academy is an initiative of the Government of India in collaboration with the state governments and industries. ICT Academy is a not-for-profit society, and a joint venture under the public-private partnership (PPP) model. ICT Academy was started to meet the skill requirements of the industry and generate more employment especially in tier 2 and 3 towns, the rural parts of the country.

Summary:
Workshop was organised by department of Computer Science & Engineering. The presentation began by explaining that ICT Academy was started to meet the skill requirements of the industry and generate more employment especially in tier 2 and 3 towns, the rural parts of the country. The organization was formed with representations from the State Government of Tamil Nadu, leading companies in the ICT industry and National Association of Software Services Companies (NASSCOM) in India. ICT Academy is recently endorsed and recommended by NITI Aayog (National Institution for Transforming India Aayog), the National Planning body of Government of India as one of the unique organization for dissemination and replication, which is aligned to the Skill India Vision of the Government of India. With training of teachers and students as the primary objective, ICT Academy has been working through a seven pillar program in the areas of faculty development, student skill development, entrepreneurship development, youth empowerment, industry-institute interaction, digital empowerment and research & publications.

Nagarjuna College of Engineering & Technology
Department of Computer Science & Engineering
Workshops Organised

6.
Title: Website Design and Development
Resource Person: Experts from NCET and different colleges
Date: 31st March 2017 and 1st April 2017 | 9.00AM to 5.00PM
Total Participants: 50

Goals: The purpose of this workshop was to create Web design encompassing many different skills and disciplines in the production and maintenance of websites. The different areas of web design include web graphic design; user interface design (UI design); authoring, including standardised code and proprietary software; user experience design (UX design); and search engine optimization. Often many individuals will work in teams covering different aspects of the design process, although some designers will cover them all.

Summary:
Workshop was organised by department of Computer Science & Engineering. The presentation began by explaining that In 1989, whilst working at CERN Tim Berners-Lee proposed to create a global hypertext project, which later became known as the World Wide Web. During 1991 to 1993 the World Wide Web was born. Text-only pages could be viewed using a simple line-mode browser. In 1993 Marc Andreessen and Eric Bina, created the Mosaic browser. At the time there were multiple browsers, however the majority of them were Unix-based and naturally text heavy. There had been no integrated approach to graphic design elements such as images or sounds. The Mosaic browser broke this mould. This discouraged any one company from monopolizing a propriety browser and programming language, which could have altered the effect of the World Wide Web as a whole. The W3C continues to set standards, which can today be seen with JavaScript and other languages. In 1994 Andreessen formed Mosaic Communications Corp. that later became known as Netscape Communications, the Netscape 0.9 browser. Netscape created its own HTML tags without regard to the traditional standards process. For example, Netscape 1.1 included tags for changing background colours and formatting text with tables on web pages. Throughout 1996 to 1999 the browser wars began, as Microsoft and Netscape fought for ultimate browser dominance. During this time there were many new technologies in the field, notably Cascading Style Sheets, JavaScript, and Dynamic HTML. On the whole, the browser competition did lead to many positive creations and helped web design evolve at a rapid pace.

Nagarjuna College of Engineering and Technology

Department of Mechanical Engineering

Event: One day Workshop on Advances in Composite Material Science

Venue: Department of Mechanical Engineering, NCET, Bangalore

Date: 22/10/2016

Speaker:

Karodi Venkateswarlu

Principal Scientist at CSIR National Aerospace Laboratories

Bengaluru

Delivered Technical Talk on **Advances in Composite materials**

Advanced composites exhibit desirable physical and chemical properties that include light weight coupled with high stiffness (elasticity), and strength along the direction of the reinforcing fiber, dimensional stability, temperature and chemical resistance, flex performance, and relatively easy processing. Advanced composites are replacing metal components in many uses, particularly in the aerospace industry.

Speaker:

Mr. Ashok Kumar, Centre Head, CADD Centre, Yelahanka, Bengaluru.

Delivered Technical Talk on 3D Printing working and Applications

Brief Talk:3D printing or additive manufacturing is a process of making three dimensional solid objects from a digital file. The creation of a 3D printed object is achieved using additive processes. In an additive process an object is created by laying down successive layers of material until the object is created. Each of these layers can be seen as a thinly sliced horizontal cross-section of the eventual object.

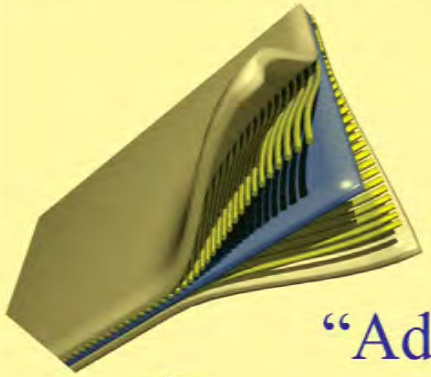
3D printing is the opposite of subtractive manufacturing which is cutting out / hollowing out a piece of metal or plastic with for instance a milling machine.3D printing enables you to produce complex (functional) shapes using less material than traditional manufacturing methods.

It all starts with the creation of a 3D model in your computer. This digital design is for instance a CAD (Computer Aided Design) file. A 3D model is either created from the ground up with 3D modeling software or based on data generated with a 3D scanner. With a 3D scanner you're able to create a digital copy of an object

Mapping POS&PSO's:

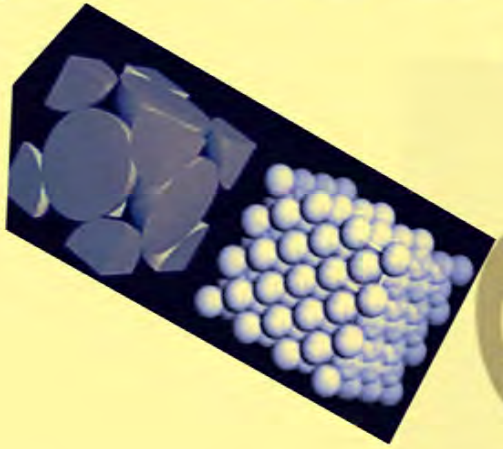
One day Work shop	**POs**												**PSO's**		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Advances in Composite Material Science	√	√	√	√	√		√						√	√	

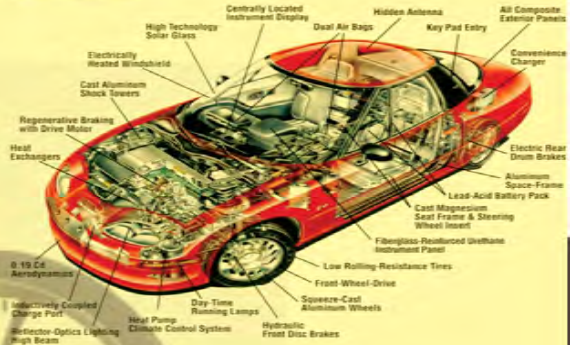
NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY



NAGARJUNA
COLLEGE OF ENGINEERING & TECHNOLOGY

One day workshop on
"Advances in Composite Materials"
22nd October 2016.





For Registration: Mr Anand Babu K, +91-9986798340, Mr Vinod Kumar R,+91-9108053555

Organised by

Department of Mechanical Engineering

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY, BENGALURU

Participation Certificate

This is to Certify that Mr/Ms **ARAVIND E** of **Seventh semester** has attended the one day workshop on "Advances in Composite Materials" organised by Department of Mechanical Engineering on 22nd October 2016.

Dr. N. Kapilan
Convener

Dr. S. G. Gopala Krishna
Principal

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY, BENGALURU

Participation Certificate

This is to Certify that Mr/Ms **CHETHAN RAMESH REDDY** of **Seventh semester** has attended the one day workshop on "Advances in Composite Materials" organised by Department of Mechanical Engineering on 22nd October 2016.

Dr. N. Kapilan
Convener

Dr. S. G. Gopala Krishna
Principal

	NAGARJUNA COLLEGE OF ENGG & TECHNOLOGY DEPARTMENT OF MECHANICAL ENGGINEERING	Format No.	ACD44
		Issue No.	03
		Issue Date	22.03.2012
		Rev. No.	00
Department	MECHANICAL ENGINEERING	Academic Year-2016-2017	

Date: 20/10/2016

CIRCULAR

This is to inform all the 5th sem students of Mechanical Engineering students that the Mechanical Engineering is organizing One day Workshop on Advances in Composite Material Science in association with CSIR National Aerospace Laboratories Bengaluru. So interested students can enroll their names with staff coordinator and attend the same.

Date: 22/10/2016

Time: - 9:30AM to 4:00PM

Venue: - MBA Seminar Hall.

20/10/16

HOD

Staff Coordinator

Mr. Anand Babu K, Asst. Professor, ME, NCET

Attendance Statement

Sl.No	USN	Name	Signature
1	1NC14ME020	ARAVIND E	
2	1NC14ME022	ARAVINDA.V	
3	1NC14ME023	ARUN M SHINDE	
4	1NC14ME024	ASHISH RANJAN	
5	1NC14ME026	B.SATHYA NARAYANA	
6	1NC14ME028	BASAWA RAJ . A	
7	1NC14ME032	BRUNDA J	
8	1NC14ME043	GASAKA UDAY KUMAR	
9	1NC14ME045	GAGAN KUMAR	
10	1NC14ME035	CHETHAN RAMESH REDDY	
11	1NC14ME039	DEVARA SUNEEL KUMAR	
12	1NC14ME042	ESHWARA PN	
13	1NC15ME042	DIWAKAR M	
14	1NC15ME045	GARIKIPATI ANANTHA GOPI	
15	1NC15ME049	HARSHITHA D	
16	1NC15ME055	KEERTHI RAJ M	
17	1NC15ME056	KESHAVA MURTHY	
18	1NC15ME060	LIKHITHA C S	
19	1NC15ME062	MADHUSHREE K	
20	1NC15ME020	BALAJI N	
21	1NC15ME022	BESTA PRADEEP KUMAR	
22	1NC15ME043	G CHARAN	
23	1NC15ME046	GOWTHAM C S	
24	1NC15ME047	GUNAPATI RAGHU	
25	1NC15ME050	HEMANTH KUMAR	
26	1NC15ME064	MAHESH BABU	
27	1NC15ME066	MALLESH	
28	1NC15ME067	MALLIKARJUN	
29	1NC15ME068	MANISH	
30	1NC15ME073	MANU V	
31	1NC15ME148	TEJAS V	
32	1NC15ME149	THILAK C	
33	1NC15ME150	VAIBHAV NASKE	
34	1NC15ME153	VASANTKUMAR PUJAR	
35	1NC15ME155	VIJAY A	

Nagarjuna College of Engineering and Technology

Department of Mechanical Engineering

Event: Hands on workshop in Fusion 360 by Auto Desk Inc.

Venue: Department of Mechanical Engineering, NCET, Bangalore

Date: 23/03/2017

Speaker:

1) **Mr. Anil Kumar , Auto Desk Inc.**
2) **Mr. Subramaniya, Trainee, Auto Desk Inc**
3) **Mr. Vivek K T, Asst. Professor, ME, NCET.**

Hands on training in Fusion 360 by Auto Desk Inc. was organized by the Mechanical Engineering Department to give an exposure of Fusion 360 to the mechanical engineering student. For this training nearly 20 students of mechanical engineering actively participated. This workshop includes hands-on training on Fusion 360 Software. Dr.N.Kapilan, Head of Mechanical Engineering Department has coordinated this programme.

Mapping POS&PSO's:

One-day Worshop	POs												PSO's		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Autodesk Fusion 360	√	√	√	√	√							√	√	√	√

	NAGARJUNA COLLEGE OF ENGG & TECHNOLOGY DEPARTMENT OF MECHANICAL ENGGINEERING	Format No.	ACD44
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		Issue Date	22.03.2012
		Rev. No.	00
Department	MECHANICAL ENGINEERING	Academic Year-2016-2017	

Date: 20/03/2017

CIRCULAR

This is to inform all the 8th sem students of Mechanical Engineering students that the Mechanical Engineering Department in association with AUTODESK is organizing a **Hands on workshop in Fusion 360 by Auto Desk Inc.** So interested students can enroll their names with staff coordinator and attend the same.

Note:- Laptop is compulsory for workshop.

Date: 23th-March-2017

Time: - 9:30AM to 4:00PM

Venue: - CAMA Lab, Mechanical Block.

HOD

Staff Coordinator

Mr. Vivek K T, Asst. Professor, ME, NCET

Attendance Statement

Sl.No	USN	Name	Signature
1	1NC13ME021	BISHAL GAIRE	
2	1NC13ME022	BISHAL GIRI	
3	1NC13ME023	BIVEK GAIRE	
4	1NC13ME024	CHEKURI PAVAN VARMA	
5	1NC13ME026	CHETHAN B S	
6	1NC13ME042	KAKARLAPUDI HIMAKAR VARMA	
7	1NC13ME044	KETHU BHARATHA SIMHA REDDY	
8	1NC13ME045	KISHORE S	
9	1NC13ME070	PRASHANTH SHARANAPPA BANIGOL	
10	1NC13ME071	PRAVEENKUMAR BIRADAR	
11	1NC13ME092	SHREYAS HEGDE	
12	1NC13ME093	SIDDESHWAR J C	
13	1NC13ME094	SREENIVAS D	
14	1NC13ME105	VIKAS KUMAR PANDEY	
15	1NC13ME106	VIKAS V	
16	1NC14ME411	NAGARAJ PARASAPPA MADAR	
17	1NC14ME412	NAGESH P	
18	1NC14ME414	NAVEEN KUMAR K M	
19	1NC13ME103	VENU C V	
20	1NC13ME100	TADIGOTLAVEERA PREMSAGAR REDDY	

A

Report on

Design Now event on

AUTODESK FUSION 360

24th October 2016

Department of Mechanical Engineering

Nagarjuna College of Engineering and Technology

Bengaluru – 562 164

Report on hands-on orientation for Design Now event on

Autodesk fusion 360- 24th October 2016

Dr. Ramesh Pudale has organized the one day orientation program on hands on experience by Autodesk for mechanical 3rd and 5th sem students. The main motto of the program was to give awareness about the use of Fusion 360 modelling software and to make participate in the national level competition of modelling using Fusion360.

He has briefed about the installing and licensing the software and given hands-on training about the commands of Fusion360.

Inauguration of the program and speech by Dr. Ramesh Pudale

About Speaker:

Dr. Ramesh Pudale

Autodesk India Pvt Ltd, MFG Account Manager, Education

Dr. Ramesh Pudale is a MFG Account Manager in Autodesk and has been involved in research for the past 15 years. He has authored publications in CAD/CAM /CAE & Robotics. His research focuses on sustainable product design, CAD/CAM. He is providing implementation, training and support services for Autodesk Fusion 360. He is an Autodesk Certified Evaluator (ACE).

Nagarjuna College of Engineering & Technology

An Autonomous College under VTU

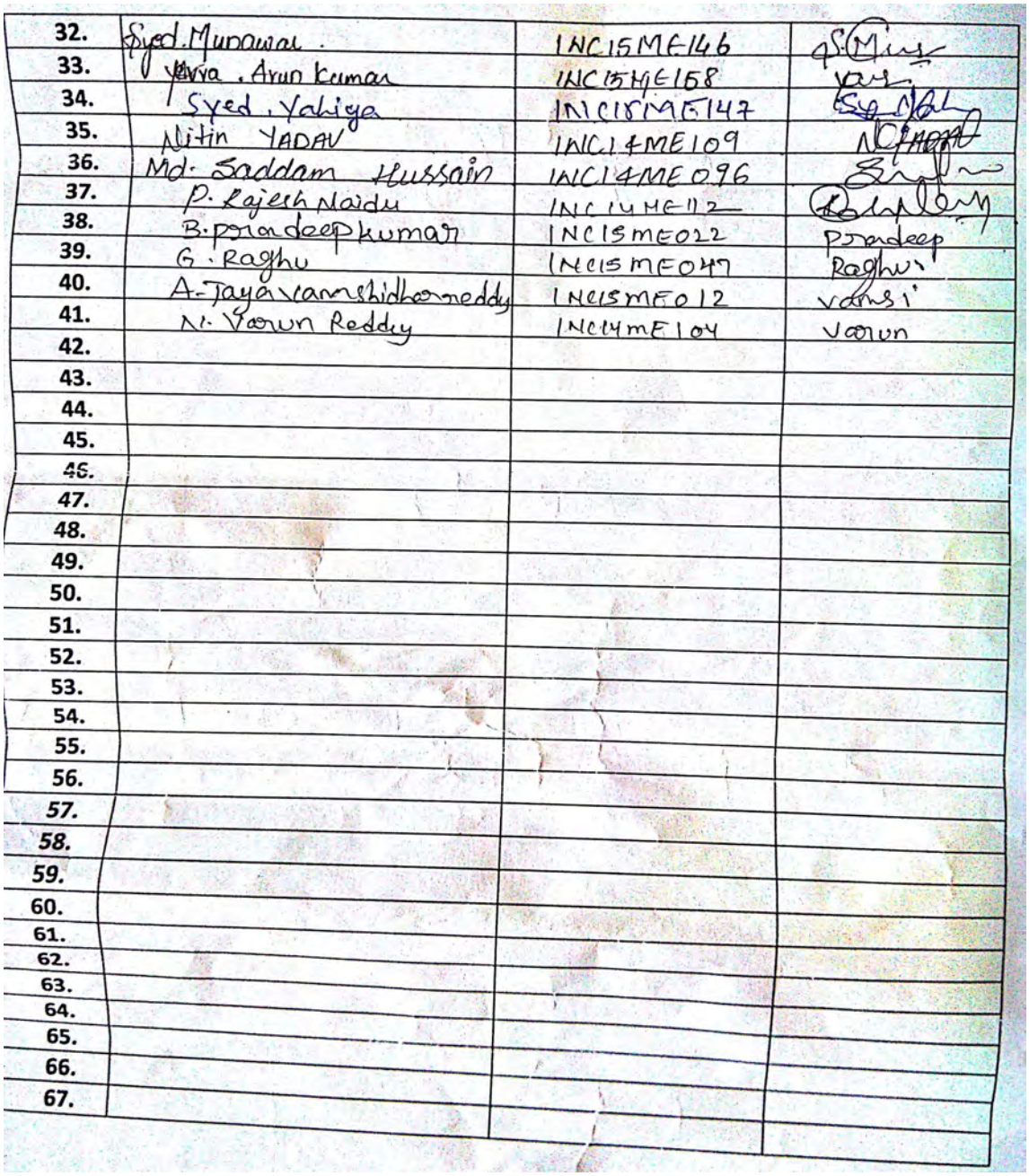
Mechanical Department

One Day Workshop on Fusion360 by AUTODESK

Date: 24/10/2016

The following students have attended the workshop

Sl no	Name	USN	Signature
1.	Rahid S hariff (IIIrd Sem)	INC15ME107	Rahil
2.	Pushpa. S (IIIrd Sem)	INC15ME105	[illegible]
3.	Madhushree. K (IIIrd Sem)	INC15ME067	[illegible]
4.	Manjunath. K P (IIIrd Sem)	1NC15ME116	[illegible]
5.	PRAJWAL B.U (III Sem)	INC15ME099	[illegible]
6.	Sai Sandeep III-sem	INC15ME139	[illegible]
7.	Saravanadevaraju (III Sem)	INC15ME127	[illegible]
8.	HEMANTH GOWDA.M (V Sem)	INC14ME055	Hemanth Gowda M
9.	KEDARNATH.R	INC14ME708	Kedarnath
10.	SHASHANK. D	INC14ME727	[illegible]
11.	G.V. Srinivas	INC14ME051	G.V.[illegible]
12.	K.S. Darshan	INC14ME061	K.S. Darshan
13.	A.R. Tejas Rao	INC14ME002	[illegible]
14.	B. Sathya Narayana	INC14ME026	B.Sathya
15.	P. Naga Sai Vinod	INC14ME116	[illegible]
16.	M. Raviteja	INC14ME083	M.Raviteja
17.	Sannakeppa pujari (5th sem)	INC15ME483	[illegible]
18.	Satyanarayana. AJ (5th sem 'C')	INC15ME424	Satya
19.	Abhishek B.A (5th sem A)	INC14ME006	[illegible]
20.	Manohar. V (5th sem)	INC14ME091	Man
21.	Sunil Kumar n.m	INC15ME432	[illegible]
22.	Manohar. J. Achar (V sem)	INC14ME092	[illegible]
23.	SIDDARTH. S. MENON (III sem)	INC15ME137	[illegible]
24.	SUJITH KUMAR SP (III)	INC15ME147	[illegible]
25.	Anil.A	INC14ME016	[illegible]
26.	Akash. T.M	INC14ME012	[illegible]
27.	Aman Kumar Gupta	INC14ME015	[illegible]
28.	Gaurav Kumar	INC14ME048	[illegible]
29.	Sharaj Rao R	INC15ME144	[illegible]
30.	Amit Adarsh (IInd sem)	INC15ME013	Amit Adarsh
31.	Ganesh. S [illegible]	INC14ME036	[illegible]
32	Aditya.S.mutalik Desai	INC14ME008	[illegible]



32.	Syed. Munawar.	1NC15ME146	
33.	Yerva. Arun kumar	1NC15ME168	
34.	Syed. Yahiya	1NC15ME147	
35.	Nitin YADAV	1NC14ME109	
36.	Md. Saddam Hussain	1NC14ME096	
37.	P. Rajesh Naidu	1NC14ME112	
38.	B. pradeepkumar	1NC15ME022	Pradeep
39.	G. Raghu	1NC15ME047	Raghu
40.	A. Jayavamshidhorreddy	1NC15ME012	Vamsi
41.	N. Varun Reddy	1NC14ME104	Varun
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Vivek K T

Coordinator

	NAGARJUNA COLLEGE OF ENGG & TECHNOLOGY	Format No.	ACD44
NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY	DEPARTMENT OF MECHANICAL ENGGINEERING	Issue No.	03
		Issue Date	22.03.2012
		Rev. No.	00
Department	MECHANICAL ENGINEERING	Academic Year-2016-2017	

Date: 21/10/2016

CIRCULAR

This is to inform all the 8th sem students of Mechanical Engineering students that the Mechanical Engineering Department in association with AUTODESK is organizing a **Design Now event on AUTODESK FUSION 360.** So interested students can enroll their names with staff coordinator and attend the same.

Note:- Laptop is compulsory for workshop.

Date: 24th-October-2016

Time: - 9:30AM to 4:00PM

Venue: - MBA Seminar Hall.

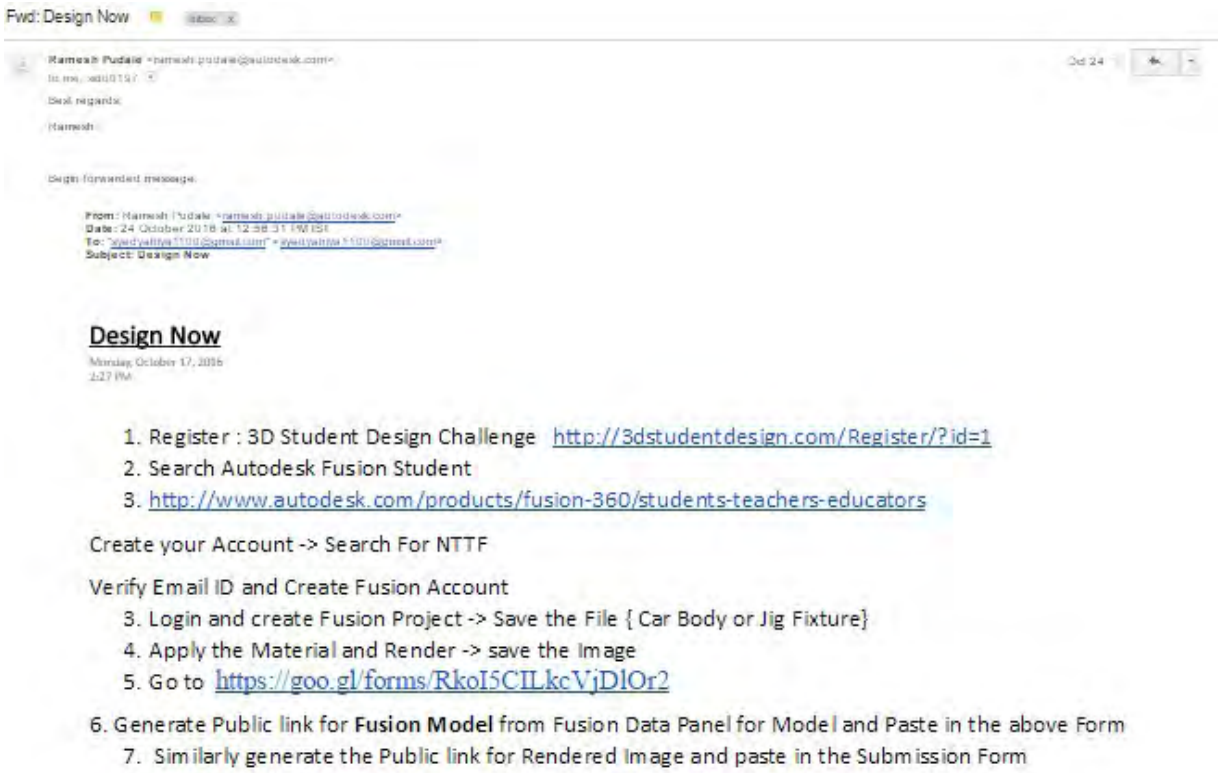
N.K 21/10/16

HOD

Staff Coordinator

Mr. Vivek K T, Asst. Professor, ME, NCET 21/10/2016

Intimation from Dr. Ramesh Pudale for design now event for October month



Fwd: Design Now

Ramesh Pudale

Oct 24

Best regards

Ramesh

Begin forwarded message:

From: Ramesh Pudale

Date: 24 October 2016 at 12:38:31 PM IST

To:

Subject: Design Now

Design Now

Monday, October 17, 2016

1:27 PM

1. Register : 3D Student Design Challenge http://3dstudentdesign.com/Register/?id=1
2. Search Autodesk Fusion Student
3. http://www.autodesk.com/products/fusion-360/students-teachers-educators

Create your Account -> Search For NTTF

Verify Email ID and Create Fusion Account

3. Login and create Fusion Project -> Save the File { Car Body or Jig Fixture}
4. Apply the Material and Render -> save the Image
5. Go to https://goo.gl/forms/RkoI5CILkcVjDlOr2

6. Generate Public link for **Fusion Model** from Fusion Data Panel for Model and Paste in the above Form
7. Similarly generate the Public link for Rendered Image and paste in the Submission Form

Hands-on training by Dr. Ramesh Pudale

Gathering of the participants in the event

Vote of thanks and Guest of Honor by Dr. Kapilan N

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF ELECTRONICS & COMMUNICATION

A three day workshop on "Hexapod workshop on Microchip PIC18 Microcontroller" is conducted on 15th - 17th and 29th March 2015. About 40 students were attended the workshop and successfully completed assigned task using HEXAPOD.

NAGARJUNA COLLEGE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF ELECTRONICS & COMMUNICATION

Technical Talk On "Embedded System And Image Processing Applications"

A technical talk on "Embedded System and Image Processing applications" was delivered by Dr.Rathna G.N, Prof IISC Bengaluru on 23rd September 2016.

NAGARJUNA COLLEGE OF ENGINNERING AND TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION

An awareness program on HAM (Amateur Radio) for the students and staff of ECE department organized by Electronics and Communication Engineering department on 9th March 2017. The programme was inaugurated by Dr.S.G.Gopalkrishna, Principal, NCET, with other dignitaries and with the Chief guest Mr.S.Sathyapal, Director, Indian Institute of HAM's.

Workshop on HAM (Amateur Radio) for the students and staff of ECE department organized by Electronics and Communication Engineering department on 4thApril 2017. The HAM club and workshop programme was inaugurated by Dr.S.G.Gopalkrishna, Principal, NCET, with other dignitaries and with the Chief guests Mr R.J.Marcus & Mr.S.Sathyapal, Director, Indian Institute of HAM's.

LIST OF REGISTERED STUDENTS FOR HAM CLUB AND WORKSHOP

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Report on Summer Internship 2016

Dr. Geetha Prakash, Dean, Industry Institute Interaction

26th Aug 2016

Dr. Geetha Prakash, Dean, Industry Institute Interaction initiated Summer Internship program on NCET campus for students of 6th semester belonging to all branches . The internship program was to promote self learning, execution of industry standard projects , enhance written and oral communication skills.
The conduction of the internship was supported by the following faculty

1. Mr. Sunil Kumar, Assistant Professor, Dept of CSE
2. Mrs.Nandini Sharma, Assistant Professor, Dept of ECE
3. Mrs. Rekha K, Assistant Professor, Dept of ECE
4. Mrs. Sunitha M, Assistant Professor, Dept of ECE
5. Mr. Ashoka C D, Assistant Professor, Dept of ECE
6. Mr. Rajath C. E, Assistant Professor, Dept of ECE
7. Mrs. Kavita Rani, Assistant Professor, Dept of ISE
8. Ms. Ramyashree, Assistant Professor, Dept of Civil
9. Ms. Vidyashree, Assistant Professor, Dept of Civil
10. Ms. Shweta, Assistant Professor, Dept of Civil
11. Mr. Mohan Kumar, Assistant Professor, Dept of Mech.
12. Mr. Siddheshwar Bandoli, Assistant Professor, Dept of Mech.

Mr. Sunil Kumar, Assistant Professor, Computer Science Dept. was instrumental in mentoring and supporting the IoT projects towards completion. Mr. Sunil Kumar was the faculty organizer of the Evaluation and the Valedictory of the Summer Internship 2016.
A screening test was conducted on March 29th 2016 to select students for the internship

program.

The screening test had two parts-one technical test similar to the GATE exam and the other an aptitude test consisting of Logical reasoning, Verbal reasoning, analytical reasoning and test of quantitative reasoning ability.

A list of top 15 students from every branch was announced and interested students from among the list were asked to enroll for the internship program. Apart from these, other students were provided internship as a part of the TI Innovation Lab.
The following Internships were offered and were supported by Industries in Bengaluru.

1. Lumerical-Tool related to Photonics from Vancouver, Canada.-Supported by Sridutt Technologies, Bengaluru
2. MEMS-Design of MicroElectroMechanical Systems on Intellisuite, a tool from USA-Supported by Sridutt Technologies, Bengaluru
3. Internet of Things-Texas Instruments based ARM microcontroller-TIVA boards-Supported by GroboMac, Bengaluru
4. Image Processing-applications for agricultural machinery on Open CV-Supported by GroboMac, Bengaluru
5. Developing Grippers for agricultural machinery-Supported by GroboMac, Bengaluru
6. Web designing for e-commerce company-Supported by Kraika Technologies , Bengaluru
7. Civil Engineering Applications on Lab VIEW, a tool from National Instruments.

The Summer Internship was organized from July 1st to 31st 2016 and had the following components:

1. Training on July 1st and 2nd
2. Description of Problem statements on July 4th
3. Block Diagram and design document submission on July 10th
4. Mid evaluation
5. Mid term Demonstration
6. Final evaluation on Aug 26th 2016.

Outcomes of the internship:
The internship has demonstrated the ability of NCET students in design and execution of engineering projects similar to those completed in industry. Most evaluators expressed their satisfaction at the results of the different projects and a few have suggested final year projects at their organization which would be certified and if executed appropriately, may result in placement of the eligible students at the same organizations.
List of Projects currently available for Final year students from various industries:

- **Device Driver development for WSN kits (Zolertia Z1 and RE-Mote). Related to different sensors-offered by Nihon Communications**
- **To build a 7 channel motor controller electronics HW and SW for the robotic arm This will involve design and developing of a pcb, Assembling of components and developing the SW. The SW will be more of a real time feedback control (PID) system. -Control Systems-offered by GroboMac**
- **UV Detector-Offered by IISc**
- **Optical components / nanophotonics-offered by Jampot photonics-Pune-related to Phoenix tool, but will be executed at Bengaluru, NCET campus.**
- **Continuing all IoT projects-offered by GroboMac**
- **Continuing all Open CV Projects- offered by GroboMac**
- **Developing AGC-Offered by Innohub-one module has to be demonstrated on or before Oct 18th 2016**
- **Identification of Colour sequence -offered by Innohub-one module has to be demonstrated on or before Oct 18th 2016**

List of projects with team members and brief description of the project

1. Detection of Brinjals
    - Sabha Noor-Ul-Ain M A - 1NC13EC067
    - Smitha R - 1NC13EC074
    - Shilpa shree - 1NC13EC072
    - Manasa M - 1NC13EC037

India is the the second largest producer of brinjal in the world. In terms of cultivated area, India is again the second largest in the world with close to 2 million acres under brinjal cultivation.. Estimates indicate that over 12 million tons of brinjal is cultivated annually. The yield per acre is typically 60 Tonnes per acre In US brinjal is called eggplant and in Europe, the name is aubergine
Picking of brinials is predominantly manual. Significant portion of the cost of production is in picking labour. As brinjal harvesting done periodally increases the peak need for labour at the time of harvesting, which leads to lack of labour availability. This means a loss for the farmer.
This situation mandates the need for low-cost, aujtomatic brinjal picker systems. The automated system for brinjal picker will have the following componentshc Machine vision based system to detect brinjals in the plant. Mechanical arm to pick the brinjals from the plant Collection unit to hold the brinjals Vechicle housing the unit to be driven through the field
In this project, the focus will be on detecting and 2D locating the brinjals. As a first step, an OpenCV based detection system to detect brinjals from still images must be developed. The detection can be based on color and shape. The system must detect all the brinjals in the given image and their 2D locations.

Figure 1: Image of brinjals for identification

2. Detection of Chillies

    - Meghana BJ - 1NC13EC043
    - Nayana N - 1NC13EC050
    - Rajappa Jayashree - 1NC13EC059
    - Muralidhara BV - 1NC14EC410

    India is the largest producer, consumer and exported of red chillies in the world. In terms of cultivated area in, India is again the largest in the world with over 2 million acres under chilly cultivation.. Estimates indicate that over a million tons of dry

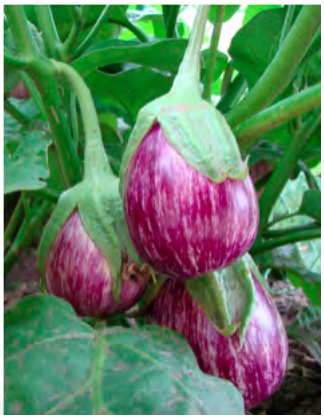

Figure 2: Image of brinjals for identification

chillies are produced in India The yield per acre is typically 600-1000 Kg of fresh rd chillies, which when drived yield about 200-400 per acre.

Picking of chillies in India is predominantly manual. Cost of fresh chilly picking is about Rs 5, with a labour being able to pick about 50 Kgs per day. Significant portion of the cost of production is in picking labour. As chilly harvesting done periodally increases the peak need for labour at the time of harvesting, which leads to lack of labour availability. This means a loss for the farmer. In addition, there are health problems associated with chilly picking

This situation mandates the need for low-cost, aujtomatic chilly picker systems. The automated system for chilly picker will have the following componentshc Machine vision based system to detect red chillies in the plant. Mechanical arm to pick the chillies from the plant Collection unit to hold the chillies Vechicle housing the unit to be driven through the field

In this project, the focus will be on detecting the red chillies. As a first step, an OpenCV based detection system to detect and locate red chillies from still images must be developed. The detection can be based on color and shape. The system must detect all the chillies in the given image and their 2D locations. There are alternate mechanisms using edge and shape detection (and not necessarily dependent on color) which can be researched and the implementation attempted.

3. Detection of tomato

   - Vinay K - 1NC13EC028

Figure 3: Image of chillis for identification

- Sanesh Regmi - 1NC13EC090
- Akshay R - 1NC13EC003

India is the the second largest producer of tomato in the world. In terms of cultivated area, India is again the second largest in the world with close to 2.5 million acres under tcmato ultivation.. Estimates indicate that over 16 million tons of tomato is cultivated annually. The yield per acre is typically 90 Tonnes per acre

Picking of tomatos is predominantly manual. Significant portion of the cost of production is in picking labour. As tomato harvesting done periodally increases the peak need for labour at the time of harvesting, which leads to lack of labour availability. This means a loss for the farmer. This situation mandates the need for low-cost, aujtomatic tomato picker systems. The automated system for tomato picker will have the following componentshc Machine vision based system to detect tomatoes in the plant. Mechanical arm to pick the tomatoes from the plant Collection unit to hold the tomatoes Vechicle housing the unit to be driven through the field

In this project, the focus will be on detecting and 2D locating the tomatoes . As a first step, an OpenCV based detection system to detect tomatoes from still images must be developed. The detection can be based on color and shape. The system must detect all the brinjtomatoes als in the given image and their 2D locations. There are alternate mechanisms using edge and shape detection (and not necessarily dependent on color) which can be researched and the implementation attempted.

4. Water Quality Monitoring System

   - Shruthi DR - 1NC13CS090
   - Jaysheel - 1NC13EC027
   - Swapna J - 1NC13EC080
   - Mangalagouri - 1NC13EC038
   - Keerti R - 1NC13EC404
   - Suhas MR - 1NC13EC076

   Clean drinking water is a critical resource, important for the health and well-being of all humans. Water is often contaminated with organic and inorganic impurities like high levels of arsenic, fluoride and micro organisms or pathogens. Drinking water, polluted with such impurities cause several diseases. Studies indicate that 80% infectious diseases are caused by water borne contaminants, hence drinking water testing is important. Without good water supplies people can succumb to all types of illnesses.

Figure 4: Image of tomatoes for identification

Extent of water contamination by chemical and biological contaminants can be measured using parameters such as Turbidity (TU),Oxidation Reduction Potential (ORP), Electrical Conductivity (EC) and pH.

Typically, water quality monitoring may be done by measuring physical, chemical, or biological characteristics of the water.. This may be done multiple times a year as water quality may change with season and with weather events. The standard practice may be done manually by taking the samples and sent to the lab for investigation. Though this may be done several times a year, the system is dynamic enough to detect sudden deviations in water quality. This could potentially result in contaminated water being supplied for domestic consumption. This will apply both to to the water supplied by a government body as well as t groundwater in individual establishments.

This situation mandates the need for low-cost, continuous and accurate systems for assessment of water quality. The system developed is intended to be used as a part of a network of such low cost water sensor network.The data collected can be provided to to end consumers, water supply boards/companies and authorities. The data provided by such network can be useful for multiple purposes:
(a)Detection of the location/source of impurities
(b)Raising awareness
(c)Better water-handling and management.

5. Temperature Controller System

   - Atiya Firdose - 1NC13CS020
   - Brunda CJ - 1NC13CS024
   - Rakesh DR - 1NC13EC061
   - Shivaleela - 1NC13EC073
   - U Harshavardhan Varma - 1NC13EC083
   - U Vigneshwara Rahul - 1NC13EC086

   Maintaining the temperature between specfic thresholds is a key requirement in several applications. Examples include application in industrial context, cold storage systems, domestic systems such as air-conditioners, chemical reaction systems etc

   Monitoring and conrolling the temperature is autom tically done in some of the applications. For example, a thermostat in an AC system turns on/off based on the temperature setting and the temperature sensed. There are also practices of monitoring the temperature periodically and taking actions manually if the temperature is outside the lower/upper bounds

There is a need for automatic sensing of temperature and keeping the temperature within desired lower and upper limits. For example, the temperature of a chemical reaction may have to be controlled between T1 and T2. Manual way is to measure the temperature probe and turning the heat on/off manually, based on the temperature reading. The manual process is cumbersome and prone to human errors..

In a given establishment, be it industrial, automotive, domestic, there may be several appliances/instruments/environments where the temperature may have to be controlled. The system should sense the temperature in various nodes in a continuous manner, using low cost and accurate sensors. The data collected can be provided to end customers, equipment supply companies and government organizations.

The purpose of the project is to develop a system for the following

- Measure the temperature in a given set up (equipment, environment $\cdots$)
- Communicate the measurements read
- Store the collected data in a database for further analysis
- Control the temperature by turing the heating/cooling on/off
- Provide ways to analyze the data for remedial actions

6. Storage monitoring

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- Subham Chatterjee - 1NC13CS096
- Suhas Shetty NS - 1NC13EC077
- Sandeep S - 1NC13EC069
- Raghavendra BN - 1NC13EC057
- Shashi Kumar D - 1NC13EC417
- Chandrika NV - 1NC14EC400
- Manohara N - 1NC13EC040

In a warehouse or a central storage, tracking the stock positions of commodities is a key requirement. Examples include tracking the number of items in a shelf in a grocery store?s backend storage, part availability in a manufacturing set up in an industrial context.

Monitoring and conrolling the availability of stocks is is mostly done manually. The manual way includes an employee walking around the storage area, jotting down the avalability of stocks on the shelves and taking action to fill back in case the stock is low.

There is a need for automatic sensing of stock availability and taking actions to ensure the stock level is appropriate. For example, the stock level of a particular item must be kept abve a particular quantity. If the stock falls below a particular level, actions must be taken to refill the stock.

The system should sense the stock level in various units (nodes) in a continuous manner, using low cost and accurate sensors. The data collected can be provided to store managers and supply companies.

The purpose of the project is to develop a system for the following

- Measure the stock in a given set up (equipment, environment) .This can be done using pressure sensors
- Communicate the measurements read
- Store the collected data in a database for further analysis
- Take actions to get the stock filled up if required.
- Provide ways to analyze the data

7. Demonstration of fabrication, design analysis and system modelling of a capacitive pressure sensor.

   The project deals with the demonstration of the fabrication process of a pressure using a systematic process flow, design analysis of the pressure sensor using static analysis and frequency analysis and system modeling of an integrated pressure sensor. These are done by an integrated design software known as Intellisuite. The software allows the design, process, packaging and system teams to collaborate on MEMS devices that can be prototyped and manufactured with fewer costly iterations.

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   - Sahana Y P 1NC13EC068
   - RaviKiran G 1NC13EC063
   - Chiranth U 1NC14EC401
   - Mohith J Acharya 1NC13EC045

8. Organic LEDs(OLEDs)

   - Arun Kumar B M - 1NC13EC008
   - Ashitha Jain PM - 1NC13EC010
   - Dhanushree M - 1NC13EC020
   - Jayashree S G - 1NC13EC026
   - Meghashree M S - 1NC13EC044

- Shalinee Singh - iNC13EC071
- Zaiba Kouser - 1NC13EC089

Similar to the conventional inorganic semiconductor devices, the p-n junction was realised in the OLED structure using highly conductive doped organic materials . The p-I-n- type OLED was made from sandwiched intrinsic layers between p-type HTL and n-type ETL. The I-layers normally consist of emission layer (EML), electron blocking layer (EBL), and hole blocking layer (HBL). These blocking layers ensure charge confinement in the EML and enhance carrier recombination. The advantage of this structure is the low operating voltage. The reduced injection barrier at the interface between metals and the doped layer enables excellent current injection, leading to low operating voltage and high power efficiency. For example, a luminance of 1000 cd/m2 can be achieved at the operating volt- age of less than 3.0v.
The OLED device that we have designed consists of a 50nm-thick silicon-di-oxide (sio2), 50-nm-thick N,N'diphenyl-N,N'-bis(1-naphthyl)-1-1'biphenyl-4,4"diamine (aNPD), 50-nm-thick Tris (8-hydroxyquinoline) aluminum (Alq3), 1-nm-thick lithium fluoride, and 50nm-thick aluminum deposited on a glass substrate with a 50-nm-thick indium-tin-oxide (ITO).
The N,N'diphenyl-N,N'-bis(1-naphthyl)-1-1'biphenyl-4,4"diamine (aNDP) is used as a hole transport layer. This showed high stability in the OLEDs due to its higher transition temperature Tg (95 C).
Alq3 is used as a electron transporting materials . This is due to its thermal and morphological stastability and easy synthesis. This material can be employed both as a green fluorescent emitter and host matrix for green and red emitters. This material inhibits exciplex formation with HTMs like NPD and TPD, so that single green emission of Alq3 can be obtained. A single layer of Alq3 was employed as an emitter (also as ETL).

9. Web Designing for Blog Writing

   Information Science

   - Lavanya J - 1NC13IS019
   - Varsha HP - 1NC13IS039
   - Bindu N - 1NC13IS008
   - Nandini V
   - Suman Rana - 1NC13IS035
   - Bimarsh Pakhrin - 1NC13IS007

   Computer Science

   - Supritha N - 1NC13CS100

- Vindya N - 1NC13CS110
- Vaishnavi N Y - 1NC13CS112
- Prathibha CS - 1NC13CS068

Design of a web page for Blog Writing involves creating a new page with provision to add a new page, edit the previous page, allow for read only pages if any, to be able to read previous blogs without modification.

10. Improvement of Solar Cell efficiency

    - Bindu B - 1NC13EC013
    - Harshitha B S - 1NC13EC025
    - Deekshitha K M - 1NC13EC018
    - Madhan N - 1NC13EC035
    - Arun Raju Wadeyar - 1NC13EC007
    - Sudharshan D - 1NC13EC075

    Optical simulation and Electrical simulation in Lumerical was used to study the solar cells. Optical simulation is done through FDTD tool. Electrical simulation is done through DEVICE tool. Design Of Solar Cell using FDTD with Anti-Reflection Layer Disabled and bottom of Solar cell is coated with Metal. with Anti-Reflection Layer Disabled and bottom of Solar cell is coated with Metal. Project was made successful in finding the efficiency of solar cell, using FDTD and DEVICE of Lumerical .The project may be further carried out to enhance the efficiency of solar cell by altering the design of solar cell, doping mesh region, simulation region, normalization length parameters, etc.

11. The project is based on fabrication, design analysis and system modelling of a capacitive pressure sensor by using various modules of the Intellisuite software. The first step is to design a pressure sensor. This is done by using the tools Blueprint, 3D builder and IntelliFAB. Using the Blueprint software module, we design the layout for the pressure sensor. The diaphragm for the sensor is circular in shape. The layout is then checked in the 3D builder which generates a 3D view of the layout. The layout is then used in the module IntelliFAB to create the pressure sensor using its process flow (flow chart illustrated below). IntelliFAB acts as a virtual clean room and generates a visual non-working prototype of the sensor. The module FabViewer is launched to visualize the process flow. In FabViewer, the user can change the resolution or other parameters to get better animations.

12. Grippers for Agricultural Robotic Machinery

    - Ashwini Kumar - 1NC13ME701

- Abhishek Kumar - 1NC13ME700
- Nikhil Ankola - 1NC13ME708
- Siddapa Yalawar - 1NC13ME719

Fruit picking robots, driverless tractor / sprayer, and sheep shearing robots are designed to replace human labor. In most cases, a lot of factors have to be considered (e.g., the size and color of the fruit to be picked) before the commencement of a task. Robots can be used for other horticultural tasks such as pruning, weeding, spraying and monitoring. Robots can also be used in livestock applications (livestock robotics) such as automatic milking, washing and castrating. Robots like these have many benefits for the agricultural industry, including a higher quality of fresh produce, lower production costs, and a smaller need for manual labor. They can also be used to automate manual tasks, such as weed or bracken spraying, where the use of tractors and other manned vehicles is too dangerous for the operators. The mechanical design consists of an end effector, manipulator, and gripper. Several factors must be considered in the design of the manipulator, including the task, economic efficiency, and required motions. The end effector influences the market value of the fruit and the gripper's design is based on the crop that is being harvested.

Figure 5: Gripper for Robotic machinery

13. REAL TIME WATER LEVEL MEASUREMENT IN A DAM

- Harathi D - 1NC13CV038
- Anusha GR - 1NC13CV705
- Anil Kumar M - 1NC14CV431
- Anirban Das - 1NC13CV703

The inflow and outflow of water in a dam will not be constant and it is necessary to maintain a reserved quantity of water in a dam. The outlet from the reservoir is

properly be regulated. During the flood season an emergency outlet is to be enabled to control the maximum water level in the dam. Measuring real time water level is an important tool to regulate the above. In this project a simple attempt is made to measure the water level using pressure gauge and with the lab view software tool. The stimulation study shows that the height of water level can be measured in real time. A burst mode operation can also be implemented for reserved water level and high flood level. The reserved quantity of water is displayed real time in the dam. The outlet from the reservoir is properly regulated during flood season burst mode.

14. STAY FORCE OF RAILWAY TRACK

    - Vivek Kumar - 1NC13CV038
    - Yogashree - 1NC13CV119
    - Anurag Kumar - 1NC13CV016
    - Shiv Kumar - 1NC14CV420

    To measure the fatigue load on the Railway track is essential to access its durability. The effective load can be measured using Triaxial accelerometer. While the train is moving, the vibration can be monitored and the load through wheel with respect to time can create vibration and that can be measured using NI myRIO and LabVIEW coding. To make coding development for automatic measurement a readily available. Measurement data is used to find the dynamic behaviour. Based on the vibration data, the fundamental frequency can be obtained by effective Analysis.

    A large number of trains passing at high speeds are simulated by signals, the passages of bogies on sleepers are studied. This experiment results show displacements, accelerations, pressures and settlements that allows us to better understand the dynamic behaviour of a portion of a railway track at reduced scale and to estimate the vertical deflection and vibration in it.

    It was found that mechanical properties such as the stiffness of the track have important variations during the experiment. The vertical deflection and vibration is found to be a function of the acceleration of sleepers. For the accelerations above a critical value, the increase of vertical deflection per cycle was very high.

    When the track is loaded by the weight of the train, the ballast and the layers below undergo an elastic displacement. During the unloading, the initial geometry is not exactly recovered and small displacements are obtained. After several cycles, the accumulation of these small vertical deflection lead to a modification of the geometry of the track.

15. Four Way Traffic Signal

- Lakshmi C Hiremath - 1NC13CV052
- Ranga Karthik - 1NC13CV084
- Sudeep - 1NC13CV102
- Shravan S - 1NC13CV099

Profiles of Evaluators

1. **Dr. Sudarshan Rao**

Indian Institute of Management, Bangalore
Management, Executive Business Management 2009 ? 2010
Rutgers, The State University of New Jersey-New Brunswick
Ph.D, Electrical and Computer Engg
New York University
M.S, Electrical & Computer Engg.
R. V. College of Engineering, Bangalore
Bachelor of Engineering (B.Eng.), Electronics & Communications
Current-Researcher/consultant-Bigsolv labs.
Vice President, R&D
6th Energy Technologies Pvt Ltd
October 2010 - November 2013 (3 years 2 months)
Remote monitoring solutions, Sensor Networks, Energy and Environments monitoring systems and data analytics for Green initiatives and networks.
International Wireless Standards R&D
Alcatel-Lucent Technologies
February 1998 - May 2009 (11 years 4 months)New Jersey
+ 2G, 3G and 4G Wireless & Mobile Network Architecture, Systems Engineering & Network Management

+ Radio-Frequency & End-to-End Network QoS Performance Testing and Analysis + 3G and 4G International Wireless Standards development + Machine-to-Machine (M2M) communications + Self Organizing Networks (SON) conceptualization and implementation
Research Associate
NEC Computer & Communications Research Labs
May 1996 - October 1997 (1 year 6 months)Princeton, New Jersey, USA
Mobility Management on Wireless ATM Testbed .
Research Intern
GTE, Wireless Systems Lab, Waltham, MA, USA
May 1993 - November 1993 (7 months)
Cellular Packet Data Analysis, Inter-System Operations (IS-41) for mobility management.

2. **Mr. Sripadaraja**

Mr. Sripadaraja.K completed his graduation and post graduation from Bangalore University, in Electronic Science and is currently working in the capacity as Product Manager at Bigsolv Labs Pvt Ltd, Bengaluru. Also pursuing his PhD at National Institute of technology, Surathkal, Karnataka in the area of Droplet Microfluidics.
He started his MEMS journey from Indian Institute of Science. He joined as a support engineer at Bigtec Pvt Ltd. Currently he is involved in complete product from sales to support. He is been associated with IntelliSense Corporation and its associated business in the last 8 years. He was also a visiting faculty at Jain University, Bangalore. His current research involves in improving the throughput of the microfluidics device which provides access to the contents of the droplets trapped in a assay. This idea can be linked to variety of application depending on the matter of interest. He has hosted many training programs and also provided several invited talks. He has published International conference and Journals papers

3. **Mr. Manohar Sambandam**

Indian Institute of Science
Integrated Masters in engineering, ECE
1983 - 1989
Madras Christian College
Bachelor's degree in Science, PHYSICS
1980 -1983
Current : Founding Partner, Green Robot Machinery Private Limited
Senior Director
Broadcom India Research Private Limited
April 2012 - August 2013 (1 year 5 months)Bangalore
Head of engineering for the Bangalore WLAN business Unit
Some of the key milestones during his tenure at Broadcom India
1. Delivered the first integrated 802.11g Wifi Modem chip BCM5354 to the market in 2003 which went on capture 80% of the Wifi Router market share with chip shipping in 4 of the 5 Wifi Router companies product of companies like Linksys, Netgear, Belkin,...
2. Delivered the first 802.11n+BTCombo chip BCM4329 which went on to capture the market in both tablet and mobiles and was designed into IPAD,Iphone3, Samsung S3, HTC ... It was the largest selling chip from Broadcom in volume in the year 2011 and shipped more than a billion units.
3. Delivered 4313 (lowest cost chip in 802.11n primarily for the laptop space) and 4319 (802.11n for the gaming, printers, camera ...) The above 4 chips brought in more than 60% of the Wifi Business for Broadcom in the year 2012
4. In 2012 delivered the first low power 802.11n 2x2 Mimo chip for the tablet which went into solutions like Amazon Kindle and many other tablets because of its very high throughput and extremely low power.
5. In 2013 delivered the industry first 802.11ac chip (BCM4335) to the market which set the trend for 300Mbps Wifi throughput for the mobile phone. Products like HTCone,

Samsung S4 ..
Director
Broadcom
April 2010 - June 2012 (2 years 3 months)Bangalore
Senior Manager
Broadcom
October 2005 - March 2010 (4 years 6 months)
Director
Athena Semiconductors
2002 - 2005 (3 years)Bengaluru Area, India
Athena Semiconductor is a Wifi startup, one of the companies which had a CMOS RF, a key prerequisite for this market to meet the power , performance and FOB cost requirements. Headed the operations in Bangalore. The company went to market with the 802.11a/b/g solution in the year 2004 two years after operation.
Broadcom acquired Athena in 2005 for their long term growth in 802.11n.
Was responsible for the engineering team and the operations at Bangalore. Recruited the team of 32 people from companies like Texas Instruments, Wipro, Sasken and Emuzed
Manager
Texas Instruments
1987 - 2002 (15 years)
4. Mr. Deepak Gowda
Alumnus NCET, MTech Manipal University, Engineer, Bigsolv Labs, Bengaluru
5. **Mr. Manoj Bohra**
Engineering Manager
Intel Corporation
January 2013 - Present (3 years 8 months)Bengaluru Area, India
Systems Lead
Texas Instruments
Feb 2006 - January 2013 (7 years)Bengaluru Area, India
Project Manager
Wipro Technologies
2004 - February 2006 (2 years)Bengaluru Area, India
Project Lead
Wipro Technologies
2001 - 2004 (3 years)
6. **Mr. Ravi Subramanian**
currently, Director, Embedded Systems and Internet Of Things at GRoboMac

Twenty plus years of experience in software product development. Experience in embedded software product development, enterprise software development, Innovation Management and Intellectual Property Development.

Specialties: Embedded Software Development, Intellectual Property, Enterprise software development, Organization development, Development across internal and outsourced teams.
Ravi Subramanian was Director at Bally Technologies from 2010 to 2014 and Headed the software development at Bally India for the Game Monitoring Unit which is an embedded system and was involved in research and development of new gaming technologies, based on emerging technology trends. Founded in 1932, Bally Technologies provides the global gaming industry with innovative games, table game products, systems, mobile, and iGaming solutions that drive revenue and provide operating efficiencies for gaming operators.
From 1989 to 2009 Ravi Subramanian worked in Texas Instruments in different capacities from Engineering Manager to General Manager.
Brief description of his roles:
Headed the activity to drive a strategic approach to software outsourcing and partnership management for TI?s Application Specific Products (ASP) activities in India. Drove key initiatives for improving the efficiency of software outsourcing. Worked on enabling partners in influencing their road map to provide value-added software and services on top of TI?s solutions.
Started, built and led the Platform Support Packages organization which did the Led the development of board support packages for TI?s SoC platforms focused on broadband, consumer and automotive customers.
Expanded the role to include head the software development at TI India for TI?s solutions in the portable digital audio space and digital camera solutions. The solution comprised of multimedia Codecs (MP3, AAC, WMA, MPEG4), RTOS, device drivers and framework software..Supported TI Business Units and customers across geographies.
Headed the software development at TI India for the development of software for digital audio group. This group developed software for TI?s solutions on portable audio players based on C54x and C55x generation of TI DSPs. Started with a core team and grown to a larger team developing critical software components and supporting TI customers to enable them to get to market faster
Headed the software for development of device drivers for TI?s printer reference solution built on TI?s TMS320C6x processor and included several device drivers and middleware.The activity included internal development as well as acquiring software developed externally. Program managed the execution of reference system deliveries to specific TI customers.
Patents:
Selective screening for printing files in a page description language: Screening is a compute intensive process in processing images for printing. This patent is about arriving at an optimized method for screening to ensure that the images can be processed and printed in realtime.
Segmented multilevel screening for printing files in a page description language This invention is related to optimizing the screening process, a critical process in printing. The optimization is done using segmentation and lookup tables.

Figure 6: Mr. Ravi Subramanian during a session of the Summer Internship 2016

Figure 7: Final Evaluation and valedictory of the Summer Internship 2016

Figure 8: Evaluators at the Valedictory., Left to right-Dr. K Kumar-NCET, Mr. Ravi Subramanian-Former General Manager, Texas Instruments, Mr. Sripadaraja-Intellisense, Sridutt Technologies, Mr. Manohar Sambandam-Grobomac, Mr. Manoj Bohra-Grobomac, Dr. Kumar-NCET

Figure 9: Dr. Geetha Prakash, Dean, Industry Institute Interaction addressing the students

Figure 10: Students during the question and answer session of the evaluation process.

Figure 11: Students during the question and answer session of the evaluation process.

Figure 12: Dr. Sudarshan being appreciated with a memento by Dr. SG Gopala Krishna, Principal, NCET.

Figure 13: Mr. Manohar Sambandam being appreciated with a memento by Mrs. Sharada T, Professor of Physics , Dept of Science and Humanities NCET.

Figure 14: Students during the question and answer session of the evaluation process of the Image Processing project

Figure 15: Mr. Sunil Kumar B, Assistant Professor, dept of CSE being appreciated by Dr. Srikanta Murthy, Vice Principal, NCET

Figure 16: Mr. Deepak, Alumnus, NCET and evaluator being appreciated by Dr. SG Gopala Krishna, Principal, NCET

Figure 17: Students presenting their work during the evaluation process.

Figure 18: Mechanical students presenting their project

Figure 19: Mechanical students being questioned by evaluators

Figure 20: Students who worked on the IoT Project with faculty members who conducted the training program on TIVA launch pads from Texas Instruments which was donated to NCET as a part of the MoU

Figure 21: Civil students presenting their project

Figure 22: Dr. Sudarshan addressing the students

NAGARJUNA
COLLEGE OF ENGINEERING
AND TECHNOLOGY

NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY

Report on Industrial Visit at

LabVIEW Academy

NI Systems (India) Private Limited81/1 & 82/1, Salarpuria Softzone
Wing B, 5th Floor, Block A Bellandur, Varthur Hobli Bangalore 560 103, Karnataka

ACKNOWLEDGEMENT

We extend our heartiest thanks to ASHIV SHAH (HEAD CORE) for making a day to cherish for some of the lucky students who are honored with your humble gesture to get an opportunity to visit such an esteemed organization.

We also want to thank our **HOD Mr. N Kapilan** and **Principal Mr S G Gopalakrishna** for coordinating the Industrial visit.

CONTENTS

Chapter Name

OBJECTIVES

To equip engineers' and scientists with systems that accelerates productivity, innovation and discovery.

To provide powerful, flexible technology solutions that accelerates productivity and drive rapid innovation.

To help engineers and scientists overcome complexity to exceed even their own expectations.

To Promote NI in such a way that everyone use NI's integrated hardware and software platform to improve our world.

OUTCOMES

equiped engineers and scientists with systems that accelerates productivity, innovation and discovery.

provided powerful, flexible technology solutions that accelerates productivity and drive rapid innovation.

helped engineers and scientists overcome complexity to exceed even their own expectations.

Promoted NI in such a way that everyone use NI's integrated hardware and software platform to improve our world.

NATIONAL INSTRUMENTS
Alliance Member

CERTIFICATE

LabVIEW
Certified Developer

This is top certify that

Ms. Brunda J

(Nagarjuana College of Engineering and Technology, Bengaluru)

for successful participation in

Short Term Training Program

on

"LabVIEW"

During 03rd April, 2017 to 07th April, 2017 conducted by

LabVIEW ACADEMY at NCET, Bengaluru

(Ashiv Shah)
Head Core

NATIONAL INSTRUMENTS
Alliance Member

CERTIFICATE

LabVIEW
Certified Developer

This is top certify that

Mr. Arun M Shinde

(Nagarjuana College of Engineering and Technology, Bengaluru)

for successful participation in

Short Term Training Program

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(Ashiv Shah)
Head Core

NATIONAL INSTRUMENTS
Alliance Member

CERTIFICATE

NATIONAL INSTRUMENTS LabVIEW
Certified Developer

This is top certify that

Mr. Abhishek B A

(Nagarjuana College of Engineering and Technology, Bengaluru)

for successful participation in

Short Term Training Program

on

"LabVIEW"

During 03rd April, 2017 to 07th April, 2017 conducted by

LabVIEW ACADEMY at NCET, Bengaluru

(Ashiv Shah)
Head Core

NATIONAL INSTRUMENTS
Alliance Member

CERTIFICATE

NATIONAL INSTRUMENTS LabVIEW
Certified Developer

This is top certify that

Ms. Namratha S K

(Nagarjuana College of Engineering and Technology, Bengaluru)

for successful participation in

Short Term Training Program

on

"LabVIEW"

During 03rd April, 2017 to 07th April, 2017 conducted by

LabVIEW ACADEMY at NCET, Bengaluru

(Ashiv Shah)
Head Core

DETAILS OF TRAINING RECEIVED

LabVIEW – Training Schedule

Name of The Participant	Signature of the participant				
	03-04-17	04-04-17	05-04-17	06-04-17	07-04-17
Brunda	Brunda	Brunda	Brunda	Brunda	Brunda
Abhishek	Abhi	Abhi	Abhi	Abhi	Abhi
Ashis Shinde	AS	AS	AS	AS	AS
Namratha	Namratha	Namratha	Namratha	Namratha	Namratha

	NAGARJUNA COLLEGE OF ENGG & TECHNOLOGY DEPARTMENT OF MECHANICAL ENGGINEERING	Format No.	ACD44
		Issue No.	03
		Issue Date	22.03.2012
		Rev. No.	00
Department	MECHANICAL ENGINEERING	Academic Year-2016-2017	

Date: 01/04/2017

CIRCULAR

This is to inform all the 6th sem students of Mechanical Engineering students that the Mechanical Engineering Department in association with LabVIEW National Instruments is organizing Five Days Training On LabVIEW. So interested students can enroll their names with staff coordinator and attend the same.

Date: 3/04/2017 to 7/04/2017

Time: - 9:30AM to 4:00PM

Venue: - OS Lab, CS Block NCET.

N. K 01/04/17

HOD

Staff Coordinator

Vivek 01/04/2017

Mr. Vivek K T, Asst. Professor, ME, NCET

The students and staff of Mechanical Engineering Department of NCET have participated in the two-days workshop on **"VIRTUAL LABS"** organised by the Department of Mechanical Engineering on 12th and 13th August -2016. The summary of the workshop is as follows.

List of Students:-

1. Dileep (1NC15ME407)
2. Ajay kKumar (1NC15ME400)
3. Diganth K (1NC15ME406)
4. Raghaveera V(1NC15ME419)
5. Kedarnath (1NC14ME708)
6. Darshann K S(1NC14ME061)
7. D Suneel Kumar (1NC14ME039)
8. Satyanarayana (1NC15ME424)

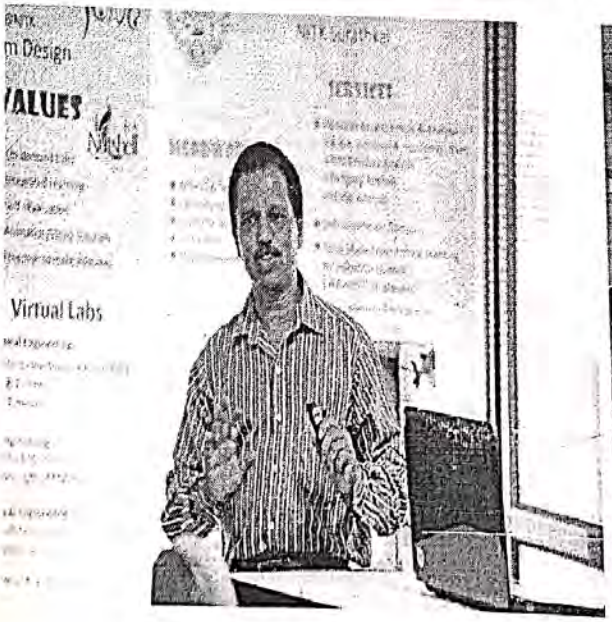
List of Faculty Members:-

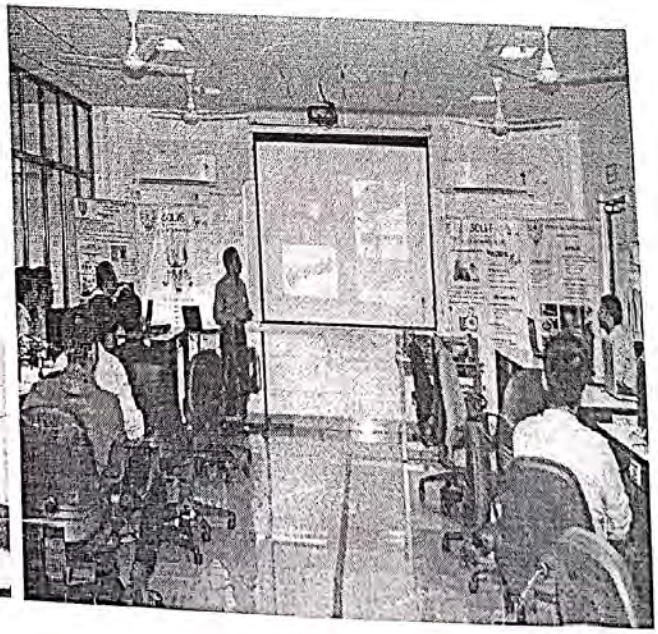
1. Mr. Amaresh Gunge
2. Mr. Prabhakar C G

The following topics covered by different speakers related to virtual labs.

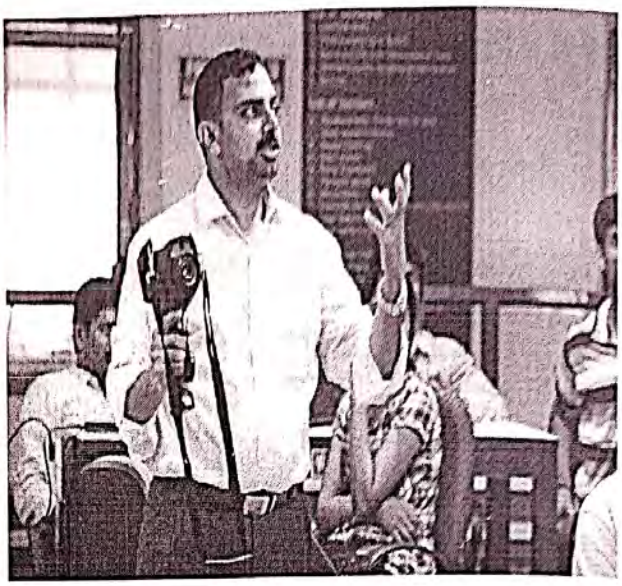
First Day (12-08-2016):-

1. Introduction to **VIRTUAL LAB and its applications** by Dr. K.V. Gangadharan, Virtual lab Institute Coordinator, NITK, Surrthkal

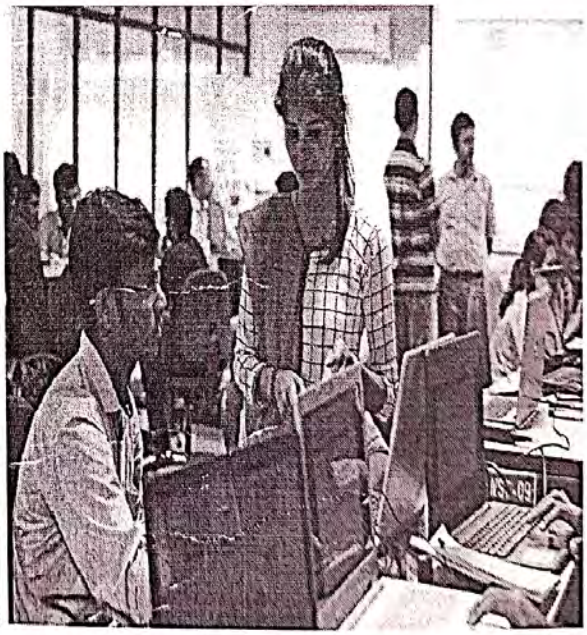




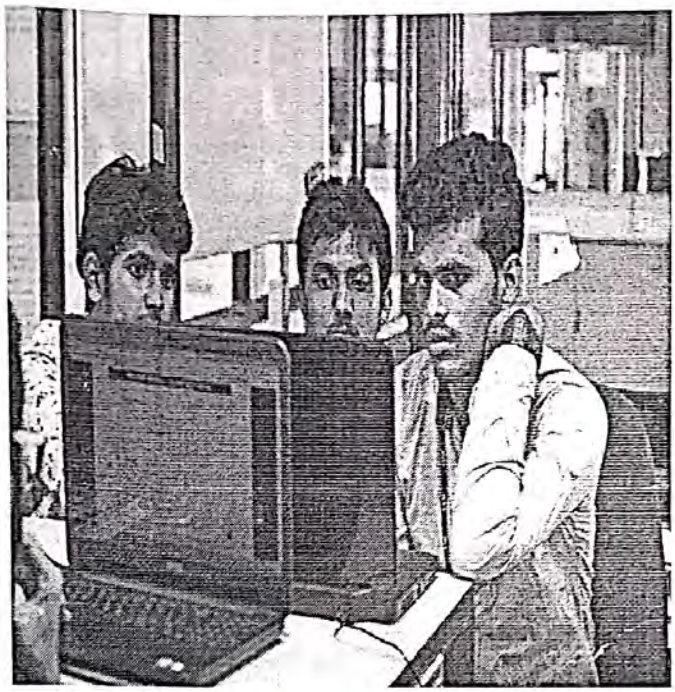
2. Introduction to **CAMERA TRAP** and **3D CAMERA** by Dr. Pruthviraj U. Coordinator for SOM and FM lab, NITK, Surrthkal.



3. Introduction to **REMOTE TRIGGER EXPERIMENTS** by M-Tech. research scholars of NITK, Surrthkal.



4. Practical session (Hands on session).

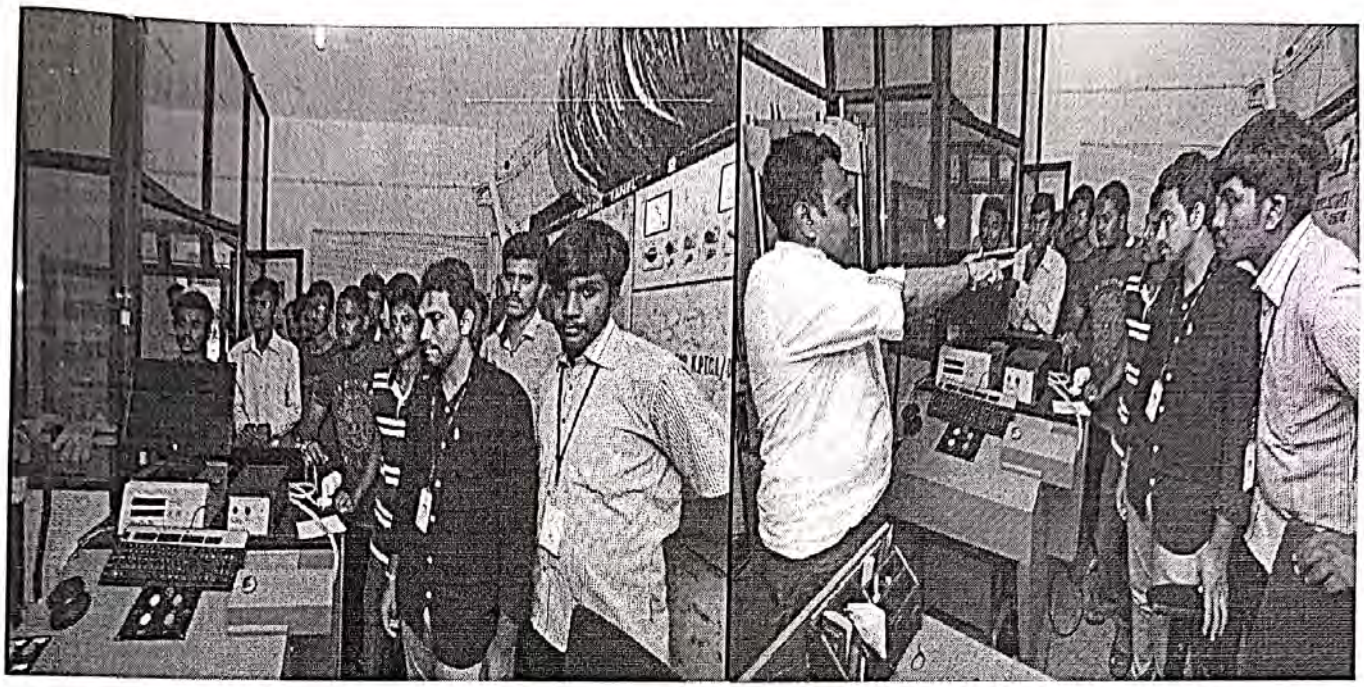


5. Sub-Topics covered (Related to virtual labs) by research scholars of NITK, Surrthkal (Ph.D and M-Tech.)

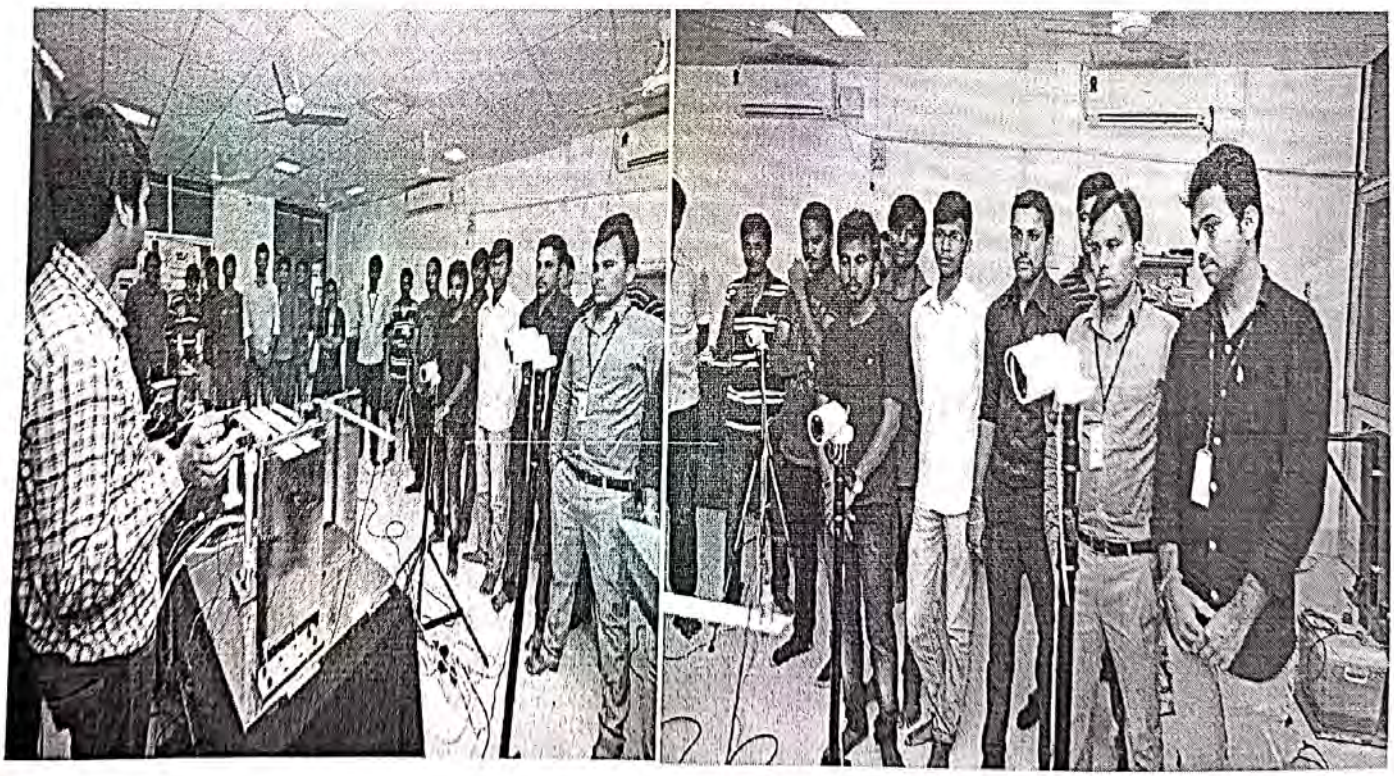
Second Day (13-08-2016):-

1. Practical session (Hands on session)

2. Demo on Izod and charpy (Modified Set up) by M-Tech. research scholars of NITK, Surrthkal.



3. Demo on Simply supported beam, cantilever beam, etc. (Modified set up). by M-Tech. research scholars of NITK, Surrthkal.



4. College wise quiz computation was conducted, out of 8 students two got 1st and 2nd prize.

5. Programme ends with group photo.

	NAGARJUNA COLLEGE OF ENGG & TECHNOLOGY DEPARTMENT OF MECHANICAL ENGGINEERING	Format No.	ACD44
		Issue No.	03
		Issue Date	22.03.2012
		Rev. No.	00
Department	MECHANICAL ENGINEERING	Academic Year-2018-2019	

Date: 10/08/2016

CIRCULAR

This is to inform all the 5th semester staffs of Mechanical Engineering that the following students of Mechanical Engineering are attending the Two days Workshop on "VIRTUAL LABS" on 12th and 13th August 2016. So all the staffs of corresponding semester are requested to permit them to attend the workshop.

Sl no	Name of students
1.	DILEEP (1NC15ME407)
2.	AJAY KUMAR(1NC15ME400)
3.	DIGANTH K(1NC15ME406)
4.	RAGHUVEERA V(1NC15ME419)
5.	KEDARNATH(1NC14ME708)
6.	DARSHAN K S(1NC14ME061)
7.	D SUNEEL KUMAR(1NC14ME039)
8.	SATHYANARAYANA(1NC15ME424)

HOD 10/08/2016

Staff Coordinator

1. **Mr. Amaresh Gunge**
2. **Mr. Prabhakar C G**

Attendance Sheet

Sl no	Name of students	12/08/2016	13/08/2016
1.	DILEEP (1NC15ME407)	Dileep	Dileep
2.	AJAY KUMAR(1NC15ME400)	Ajaykumar	Ajaykumar.
3.	DIGANTH K(1NC15ME406)	Diganth.K.	Diganth.K.
4.	RAGHUVEERA V(1NC15ME419)	Raghuveera.	Raghuveera.
5.	KEDARNATH(1NC14ME708)	Kedarnath.	Kedarnath.
6.	DARSHAN K S(1NC14ME061)	Darshan.K.S.	Darshan K.S
7.	D SUNEEL KUMAR(1NC14ME039)	Suneel Kumar.D	Suneel Kumar.D
8.	SATHYANARAYANA(1NC15ME424)	Sathyanarayana	Sathyanarayana

N.K pls
13/08/2016
Circulate for attendance