



NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC
Accredited by NAAC with 'A' Grade, Accredited by NBA

CURRENTS

Biannual EEE News Letter

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MESSAGE FROM HEAD OF THE DEPARTMENT

It is my pleasure to pen my views for release of this semesters issue of " News Letter-Currents". I am extremely delighted to acknowledge that the editorial team has done a stupendous job of subsuming all the key events which have taken place over the course of last few months. To Top it off, this News letter includes major events witnessed by our department as well as Engineering Advances in the Electrical Field.



The essential objective of the Newsletter is to inform, engage, inspire and entertain a diverse readership – including students, faculty, parents and alumni- with a timely and honest portrait of our department activities. This issue has made an earnest attempt in this direction and all the credit for its success falls upon faculty and students who have worked with dedication and enthusiasm to bring the second issue forward. I convey my regards to all the readers.

Dr.R.Elumalai

ABOUT THE DEPARTMENT

Electrical and Electronics Engineering is a continuously evolving subject. As technology has advanced, so have the challenge facing the modern engineer. EEE is a subject that naturally partners with other disciplines with whole new engineering avenues. From the very inception of the college in 2001, the Department of EEE offers four year full-time B.E program under three variants Global, Professional and Executive, affiliated to VTU with the intake of 60 students, now boast of 120 students per year. The Department is equipped with all the required laboratories, infrastructure and class rooms.

The B.E Degree program is designed to achieve a balance between depth of knowledge acquired through specialization and breadth of knowledge gained through exploration. The undergraduate degree courses offered by department provide a comprehensive foundation in the core topics of EEE coupled with an area of specialization relevant to emerging engineering challenges. The curriculum has been designed to create professional electrical and electronics engineers, who can serve the fields of core Electrical Engineering, information and communication systems, and other related fields.

VISION

To evolve into centre of excellence in Electrical and Electronics Engineering for bringing out contemporary engineers, innovators, researchers and Entrepreneurs for serving nation and society.

MISSION

- To provide suitable forums to enhance the teaching – learning, research, development activities.
- Framing and continuously updating the curriculum to bridge the gap between industry and academia in the contemporary world and serve society.
- To inculcate awareness and responsibility towards the environment and ethical values.

Program Outcomes

Electrical and Electronics Engineering Graduates will be able to:

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change

Program Specific Outcomes

PSO 1: Graduates will be able to solve real life problems of power system and power Electronics using MiPower, PSPICE and MATLAB software tools and hardware.

PSO 2: Graduates will be able to develop and support systems based on Renewable and sustainable Energy sources.

PATENTS FILING BY STUDENTS

USN	Name of the Student	Title of Patent	Application No. and Date
1NH14EE711	INDRANIL DAS	A POWER BANK APPARATUS	E-2/225/2017-KOL AND APPLICATION NO. 201731033885 DT.25.09.2017
1NH14EE711	INDRANIL DAS	SENSORIZED TWO USB PORT SOLAR CHARGING SYSTEM	E-2/224/2017-KOL AND APPLICATION NO. 201731033884 DT.25.09.2017

PATENTS FILING BY FACULTY

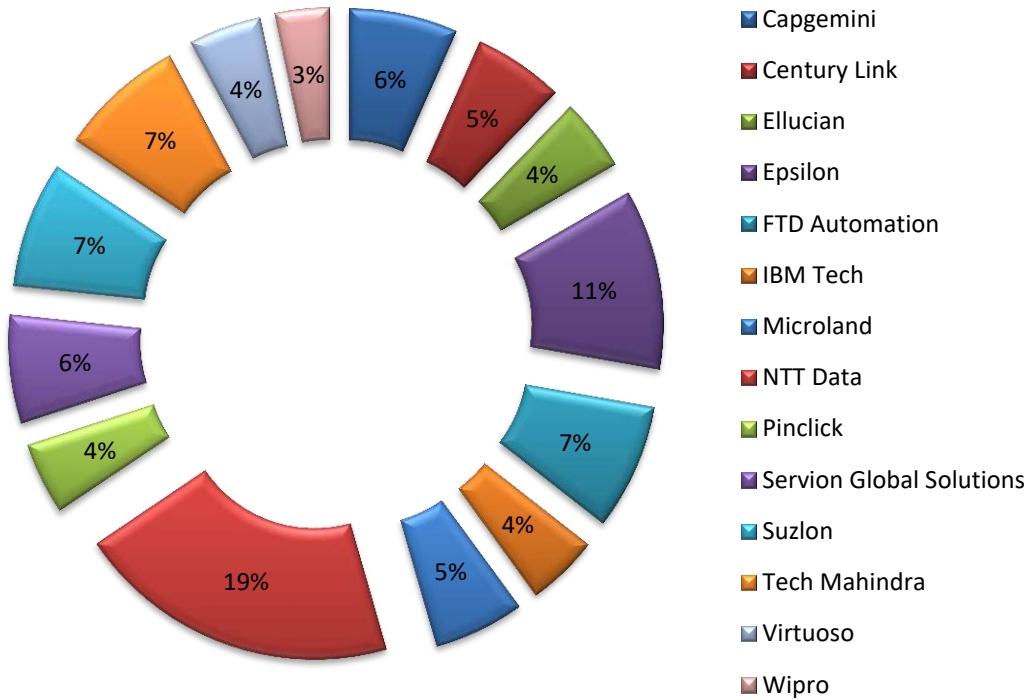
Topic	Author Name	CBR Number / Patent Number	CBR Date
Novel System and Method for Power Saving Using Pulse Width Modulation Technology (PMT)	Dr. R. Elumalai, Dr. S. Sujitha Ms. A. Anitha, Prof. Satish Kumar	E-2/3504/2017-CHE and 201741041152	17.11.2017
Novel System and Method for Smart Optimization of Demand Side Management (DSM) for Productivity	Dr. R. Elumalai, Dr. S. Sujitha	E-2/3512/2017-CHE and 201741041160	17.11.2017
Novel System and Method of Remote Power Charging with Mechanization Efficiently by Super capacitor	Dr. R. Elumalai, Dr. S. Sujitha Prof. Satish Kumar, Ms. A. Anitha	E-2/3498/2017-CHE and 201741041146	17.11.2017
Novel System and Method of Autonomous Controls for the Smart Operation of a Metro Train	Dr. R. Elumalai, Dr. S. Sujitha	E-2/3500/2017-CHE and 201741041148	17.11.2017
Novel System and Method of Photovoltaic Assortment Based Power Generation System Using Nine Level Inverter	Dr. R. Elumalai, Dr. S. Sujitha Mr.T Muni Prakash, Mr. Mohan B. S	E-2/3502/2017-CHE and 201741041150	17.11.2017
Novel System and Method of Capricious Electronic Speed Governor	Dr. R. Elumalai, Dr. S. Sujitha Priyanka S. Kole, T Muni Prakash	E-2/3513/2017-CHE and 201741041161	17.11.2017
Novel System and Method for Smart Detection of Electricity Theft in Modern Distribution Network	Dr. R. Elumalai, Dr. S. Sujitha Prof. Mohan B. S, Ms. Kavitha Chennareddy	E-2/3508/2017-CHE and 201741041156	17.11.2017
Novel System and Method for Grid Unified Solar Based Irrigation System	Dr. R. Elumalai, Dr. S. Sujitha Prof. Sunil. S K, Mr. Vinod Kumar	E-2/3510/2017-CHE and 201741041158	17.11.2017
Novel System and Method for Solar Based Voltage Source Inverter (VSI) Control Brushless DC (BLDC) Motor for Pump Applications	Dr. R. Elumalai, Dr. S. Sujitha Prof. J. Joshua Daniel Raj Mr. Vinod Kumar	E-2/3506/2017-CHE and 201741041154	17.11.2017
Novel System and Method for Alleviation of Power Quality Snags Using Integrated Power Quality Conditioner	Dr. R. Elumalai, Dr. S. Sujitha Prof. J. Joshua Daniel Raj Ms. Karthika. M	E-2/3511/2017-CHE and 201741041159	17.11.2017
Novel system and the method of powering bulb using piezo sensor and power management system	Dr.Nisha	201741041985	23.11.2017
Novel system and method for IOT based herb detection system	Dr.Nisha	201741041986	23.11.2017
Novel Method and System of Graphene UCAP Powered Insulin Pump	Dr.Nisha	201741034932	03.10.2017

INTERNATIONAL JOURNAL/CONFERENCE PUBLICATIONS

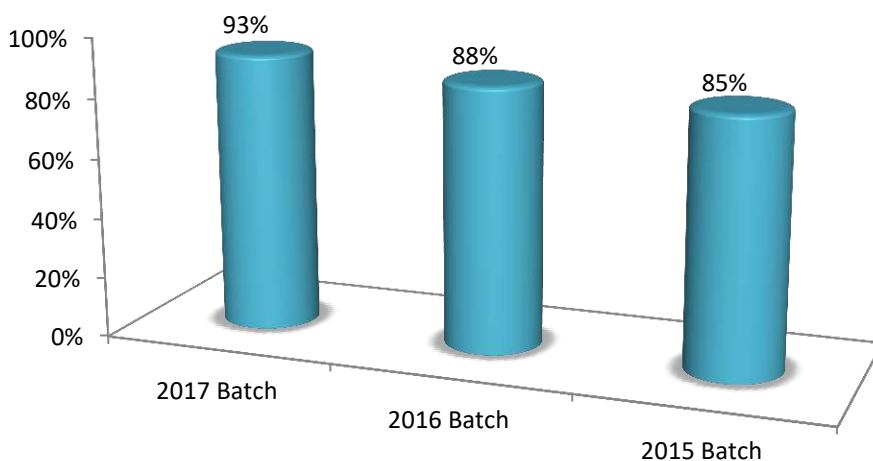
S.No	Name of the Faculty	Title	Journal	ISSN/Volume/ Issue	Impact Factor
1	Mr.J.Lithesh, Dr.Mahesh. K	Design and Development of Drop weight Generator for Harnessing Green Energy	International Journal of Engineering Science and Mathematics	ISSN 2231-3273 Volume 7, Issue 2, 2017	6.77
2	Mr.T Muni Prakash	Proposed Control Strategies for Mitigating Low Voltage Ride through to Improve Grid Synchronization of Wind Energy Conversion Systems with DFIG Machine	International Journal of Electronics, Electrical and Computational System	ISSN 2348-117X Volume 6, Issue 9 September 2017	4.59
3	Mrs. Anitha. A, Mrs.Nisha.KCR	UCAP based dynamic voltage restorer using impedance source inverter	International journal of Advanced research in electrical, electronics and computational system	ISSN:2348-117X, volume 6,Issue 8, August 2017	5.62
4	Dr.Elumalai R	ACF Algorithm for ECG Signal implementation	International Journal of Electrical, Electronics and Data communication	ISSN: 2320-2084,Volume 5, Issue 8	3.46
5	Ms.Ch. Kavitha, Dr.S.Sujitha	Voltage Distribution across string insulators by sphere gap method	International journal of Advance Research in science and Engineering	ISSN:2319-8354,volume 6,Issue 8, August 2017	4.59
6	Mr.J.Joshua Daniel Raj	Data centric security in FPGA Based data center using Attribute based Encryption	International journal of Advance Research in science and Engineering	ISSN:2319-8354,volume 6,Issue 8, August 2017	4.59
7	Mr.S.Vinod kumar, Dr.S. Sujitha	High frequency switching of Multi segment PSEUDO resonant boost converter for electric drives	International journal of Advance Research in science and Engineering	ISSN:2319-8354,volume 6,Issue 8, August 2017	4.59
8	Mr.Arun Kumar	Selective Harmonic Elimination for multilevel inverter in STATCOM	International journal of Research in applied science and Engineering Technology	ISSN:2321-9653,volume 5,Issue 8, August 2017	6.89

PLACEMENT STATS

2013-2017 BATCH: PLACEMENT STATS



Placement Last three Years



Workshop on E Digital Marketing 15.09.2017 and 16.09.2017



The objective of the workshop is to provide an opportunity for student to get aware of **DIGITAL MARKETING**, there by developing a stepping Stone towards the booming concept in the 21st century. The venue was at Simulation laboratory of Electrical and Electronics Engineering Department, NHCE.

Experts:-Shri SekarArun Founder and Head of Dream 360 and his team.

Organised by:-Dr. S. Sujitha, Coordinator of E-Soft Club and Coordinated by Prof. Muniprakash, Asst Prof/EEE, Mr. S. Muniraj, Lab Instructor, Mr.D.N.Pratheep, Secretary of Esoft club, Mr.Avishek Sinha Treasurer of E soft Slub, Mr.Vikas, - the Student member of E-Soft Club and participants were benefited in this workshop.

Summary Report:-The two days' workshop was for four sessions held over a period of three hours each. First day the session was started at 10.00 A.M. by an encouraging the importance of **DIGITAL MARKETING** by Dr.R. Elumalai, HOD EEE Department and introduction of resource persons by Dr.S.Sujitha, ESoft Club Coordinator. After the introduction, the session was taken over by the Dream 360 team. The first session students had acquired the very basic knowledge of **DIGITAL MARKETING** and application in E-mail **MARKETING**. The second session started by 2.00 P.M. comprising of Hands on E-mail **MARKETING**.

On the Second Day, the third session was started at 09.00 A.M. which was all about **WEBSITE MARKETING** and **SOCIAL MEDIA MARKETING**. In this session the student has gathered the knowledge on posting advertisement on website and how to link to social media. The fourth and final session on how to increase popularity of website and hands on **SOCIAL MEDIA MARKETING**. After the workshop the utility of the workshop was presented by one of the participant and student of 5th Semester of EEE Department Kaustuv Majumder.

At the end of the second day certificates were distributed by Dr. R. Elumalai, HOD EEE Department, NHCE, Dr. S. Sujitha, Prof of EEE Department and Head of E-Soft Club, and SekarArun Founder and Head of Dream 360. The response of the participants was tremendous and their enthusing last still the end of the session. This is the first Workshop in this series and few more workshops will be followed to make the students to understand the subject better.



KaustuvMajumder
(INHISEED27)
Student of 5th Semester,

Workshop on Mobile App Development on Automation on 06.10.2017 and 07.10.2017



A Hand's on Workshop on Mobile App Development on Automation on 06.10.2017 and 07.10.2017 Organised by the Electrical and Electronics Department of New Horizon College of Engineering..

The session was started at 09.00 am on first day by the trainee Mrs.Priyadarshini, an Android Developer. The Workshop was organized by Dr.S.Sujitha, E Soft- Club President Ms.MadihaAyub, 4th Year EEE, Vice President Mr.Sharath.A.N ,4th Year EEE, Secretary Mr. D.N Pratheep, III Year EEE and Committee Members Mr.SanathKumar.N, 4th Year EEE, Mr.SwaroopKulkarni 2nd Year, Mr.Viswajeet Gupta 2nd Year, and also Supported by Lab Instructor Mr.Rajesh.

This session was interactive and using touch inputs that correspond to real world actions in Electrical Engineering which helped the participants to grasp the concepts of android mobile application development. This session was followed by 1hour test at the end for recollecting and putting their creativity into action by developing there own android app running on mobile which would upgrade to next upcoming levels. We would look forward for more such workshops in future to know more about the development of android applications.

Workshop on Android for Electrical Engineers on 13.10.2017 and 14.10.2017



A Hands on National Workshop on "Android for Electrical Engineers" In Association with Dream 360 was hosted by the Electrical and Electronics Department of New Horizon College of Engineering under the "E-Soft Club" banner.

Two days comprehensive workshop was scheduled on 13th & 14th October, 2017. The session was started at 09.00 am on 13th October by the trainee Mrs. Priyadarshini, an Android Developer. The Workshop was organized by Dr. S. Sujitha, Coordinated by Prof. Sunil & E Soft- Club President Ms. Madiha Ayub, 4th Year EEE, Vice President Mr. Sharath. A. N, 4th Year EEE, Secretary Mr. D. N. Pratheep, 3rd Year EEE and Committee Members Mr. Sanath Kumar. N, 4th Year EEE, Mr. Swaroop Kulkarni 2nd Year, Mr. Viswajeet Gupta 2nd Year, and also Supported by Lab Instructor Mr. Rajesh.

This session was interactive and using touch inputs that correspond to real world actions in Electrical Engineering which helped the participants to grasp the concepts of android mobile application development. This session was followed by 1 hour test at the end for recollecting and putting their creativity into action by developing their own android app running on mobile which would upgrade to next upcoming levels. We would look forward for more such workshops in future to know more about the development of android applications.



SANATH KUMAR. N
4TH YEAR EEE

WORKSHOPS

WORKSHOP ON ELECTRICAL AUTOCAD ON 06.11.2017



INDUSTRIAL VISITS



Industrial visit for III semester to "MAHATMA GANDHI INSTITUTE OF RURAL ENERGY AND DEVELOPMENT (MGIRED)" at Srirampura Cross, Jakkur, Bengaluru - 560 064. on 30th and 31st October 2017.

(MGIRED)" at Srirampura Cross, Jakkur, Bengaluru - 560 064 on 30th and 31st October 2017.
Industrial visit for III semester to "MAHATMA GANDHI INSTITUTE OF RURAL ENERGY AND DEVELOPMENT

EVENTS IN LINE



Hands on Training in
PLC and SCADA



Energy Conservation
Awareness Programme
2018



Greenovate – Idea
Presentation on Energy
Conservation -



Workshop on Create
your own design using
Adobe Tools on



Workshop on Revit
Mep on



International Conference on
New Horizons in Science
Engineering and Technology



Tech Horizon-2018

GUEST LECTURES

Mr. Shivaraj Gudagunti,
Asst. Engineer, TUV, Bangalore

- Parallel Operation of Synchronous Generator
- (V A and B)
- 11/11/2017

Mr. Neelamekakanna,
SMTC, Global Foundaries,
Bangalore

- Operational Amplifier Applications and Integrated Circuit (IC) Fabrication
- (III A and B)
- 11/11/2017

Ms. K. Shanthi,
Asst. Training Engineer,
LiveWire, Chennai

- State Machine
- (III A and B)
- 10/11/2017

Mr. T.R. Sathyanarayana Rao,
Trainer, KPTCL Bangalore .

- Substation Layout, Bus Arrangements and Substation Equipment
- (V A and B)
- 03/11/2017

Mr. Guruprasad,
Team Lead, Manhattan
Associates; Bangalore

- Templates and Exceptions
- (V A and B)
- 02/11/2017

Ms. Aishwarya
Lft. Officer, IAF

- Woman Empowerment- Opportunities in Electrical Engineering
- (III,V,VII A and B)
- 30/10/2017

Dr. H. Naganagowda
Director, National Training
Center for Solar Technology,
Bangalore

- Awareness of Smart Energy Consumption with Renewable Energy
- (III,V,VII A and B)
- 26/10/2017

GLIMPSES @ GLANCE



13th BE Graduation Day was held on 1st June 2017



Teacher's day Celebration at NHCE



Ethnic Day Celebration



Women empowerment Committee of our College conducted an interactive workshop on 28-01-17



13th BE Graduation Day was held on 1st June 2017



71st Independence day celebration in NHCE.



REVELATIONS' 17



Sponsored by

**E-Soft Club
Green Energy Club**

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New Horizon College of Engineering
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Bangalore – 560102**

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