NEW HORIZON
COLLEGE OF ENGINEERING

Autonomous College Permanently affiliated to VTU Approved by AICTE
Accredited by NAAC with 'A' Grade

CURRENTS

NEWSLETTER

Department of Electrical and Electronics Engineering

Vol 6, Issue I, Dec '16

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MESSAGE FROM HEAD OF THE DEPARTMENT

I am extremely delighted to write a piece of message for the first issue of "Currents- News Letter" and 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 Technical 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

EDITORIAL TEAM

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ABOUT 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 Programme 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 programme 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 AND MISSION

VISION

To produce competent Engineers to excel in the field of Electrical and Electronics Engineering by providing necessary knowledge and skills through measurable and continuous improvement methods.

MISSION

To provide an environment in which both faculty and students can think critically and assimilate knowledge

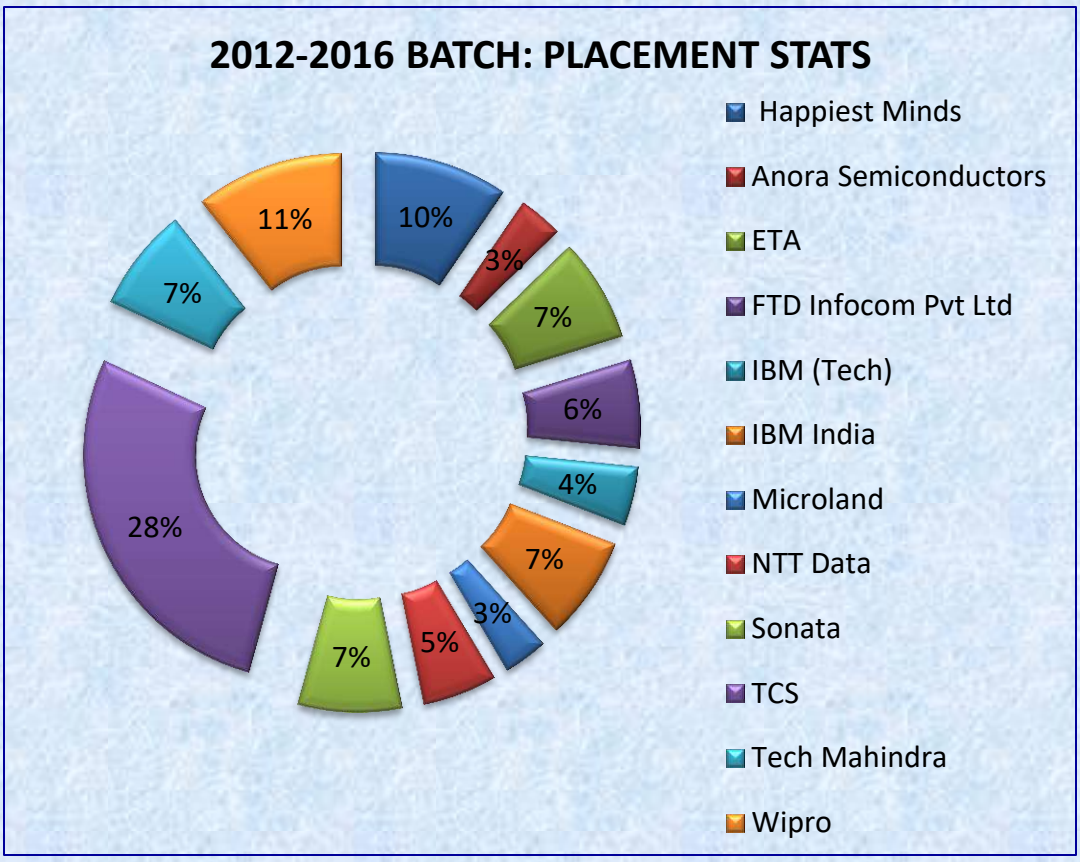
- By imparting quality technical education for students to develop into globally competent technology professionals.
- By collaborating with industry, research organizations and academia to encourage creativity and innovation.
- By preparing graduates with positive attitude and ethical values.

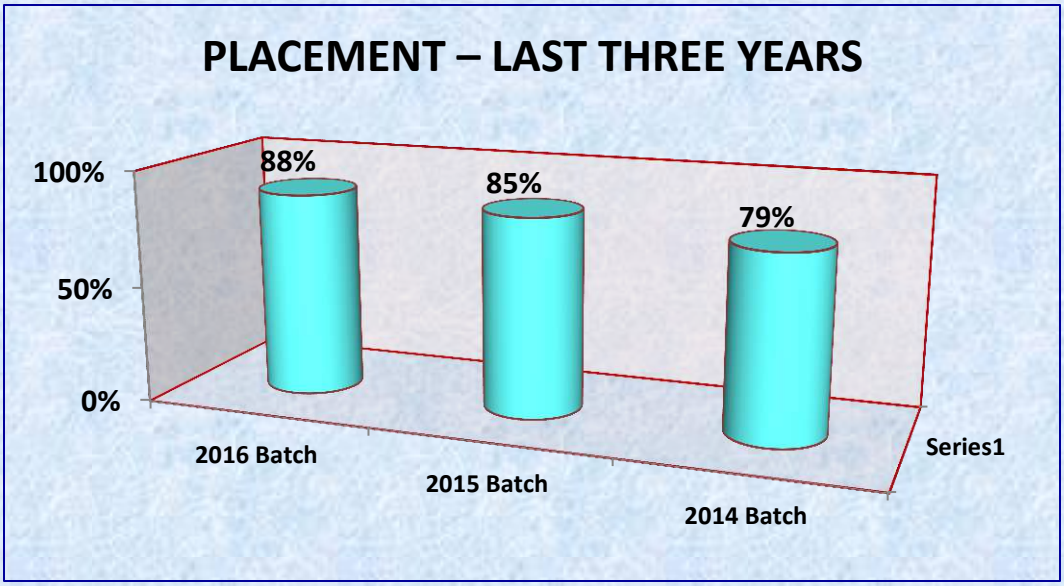
INTERNATIONAL JOURNAL / CONFERENCE PUBLICATIONS

Name	Title	Journal	ISSN/Volume /Issue/Year	Impact Factor
Mr.Karthika M	PV FED interleaved boost converter for the speed control of separately excited DC Motor using FLC	International journal of Advanced research	ISSN:2320-5406,volume 6, No 4 , August 2016	4.588
Mr.Duney Sam	Design and Development of High Voltage /Current Supply with Constant Current System for HHO Cell A Green Energy System	International Journal of Current Engineering and Technology	ISSN:2277-4106,volume 6, No 4 , August 2016	3.21
Mr.Santosh S	Design and Development of High Voltage /Current Supply with Constant Current System for HHO Cell A Green Energy System	International Journal of Current Engineering and Technology	ISSN:2277-4106,volume 6, No 4 , August 2016	3.21
Ms.A.Anitha	Quasi–Z-source Invert Based Dynamic Voltage Restorer	International Journal of Latest Trends in engineering and Technology (IJLTET)	ISSN No.2278-621X	4.49
Dr.Nisha KCR	FPGA based power quality monitoring using FFT method for single phase power monitoring	IEEE International Conference on circuit power and computing technologies- ICCPCT 2016	Presented	-

LIST OF JOURNAL PUBLICATIONS UNDER REVIEW

Name of the Faculty	Title	Submitted to the Journal Under Review
Dr.Sujitha .S	Exploration of Hybrid Switched Reluctance motor drives Using H Bridge Converter	Middle East Journal of Scientific Research
Dr.Sujitha .S	Investigation of Standalone PV Fed Switched Reluctance Motor Drivers Using C Dump Converter	Global Journal of pure and Applied Mathematics
Dr.Nisha KCR	FPGA based power quality monitoring using FFT method for single phase power monitoring	IEEE Journal


2012-2016 BATCH: PLACEMENT STATS
10%
3%
7%
6%
4%
7%
3%
5%
7%
28%
7%
11%
Happiest Minds
Anora Semiconductors
ETA
FTD Infocom Pvt Ltd
IBM (Tech)
IBM India
Microland
NTT Data
Sonata
TCS
Tech Mahindra
Wipro


PLACEMENT – LAST THREE YEARS
100%
50%
0%
88%
85%
79%
2016 Batch
2015 Batch
2014 Batch
Series1

PROGRAM OUTCOMES (POs)

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 (PSOs)

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.

WORKSHOPS
ARDUINO

The objective of the workshop is to provide an opportunity for student to get aware of ARDUINO and introduce them to the field of Embedded systems. The venue was at Electric Circuit Theory lab of Department Electrical and Electronics Engineering.

In the work shop students were able to acquire in depth knowledge of ARDUINO and its various applications in different domains of present technological era. The introductory session was given by Dr. R. Elumalai, Professor and Head, Department of Electrical and Electronics Engineering, NHCE. He gave introduction to Embeded systems and different architectures used in Embeded systems.

The workshop had hands on training on different aspects of ARDUINO and provided an opportunity for students to learn the intricacies of ARDUINO development environment. The hands on session had working of various peripherals like driving an LED, switches, configuring serial port, interfacing LDR sensor, speakers, 7-segment display and many more. The hands on training were conducted by Mr. Duney. D. Sam Assistant Professor, Department of EEE. The event was coordinator by Mr. Muniraj lab instructor and Mr. Shivam Tiwari student coordinator and his team.

The entire workshop is coordinated by Dr. R. Elumalai Prof & Head EEE Department, Prof Duney. D. Sam, Mr. S. Muniraj Lab Instructor, Mr. Shivam Tiwari 7th semester and his team. A total of 50 students participated in the workshop.

INDUSTRIAL VISIT

An Industrial visit to Bharath Heavy Electricals Limited (BHEL) – Electro Porcelain Division (EPD), Bangalore organized by Prof. S.Sujitha and Coordinated by Prof. B.S Mohan from EEE Department on 15th October 2016. The objective of industrial visit is to give practical exposure to the students of EEE in order to enhance their practical knowledge and to have an overview on the performance related to "Materials in Electrical Engineering" and "Ceramic Insulators". The second year students and faculty members of Department of EEE, NHCE had a chance to have a look at the manufacturing process of the porcelain disc insulators at BHEL-Electro Porcelain Division. Mr. Raju, AGM, BHEL guided us to entire manufacturing process, starting from the raw materials needed for the process till the finished product obtained.

Firstly the raw materials are weighed then crushed in ball mills to prepare the slip. Then it is pumped to another ball mill where dewatering is done. It is then passed through pressure pads to make cakes and remove excess water. Then the cakes are passed through plunge mills where continuous cylindrical moulds are released which is then cut into desired length manually or automatically with the help of Jiggering machine. They are then checked and adequate mass is removed by placing it into a rotating wheel. It is then placed into chambers where it is dried at high temperatures. The testing and quality checking is done by applying high voltage. If the disc is perfect with out any defects it withstands the voltage or it breaks into two pieces, which was a stunning experience. The entire process requires hard work and a time span of about 20-25 days. Overall the students and faculty members had a great experience at the BHEL-EPD.

Guest Lecture on " Materials for Special Applications & Modern Techniques for Material Science in Electrical Engineering"

An Expert Guest Lecture on "Materials for Special Applications & Modern Techniques for Material Science in Electrical Engineering" by Dr.K.Santhy, Head, Material Science Engineering, CARE Group of Institutions, Trichy on 21.10.2016 and 22.10.2016. Organised and Coordinated by Prof. S. Sujitha, EEE Department for the III Semester Students to gain knowledge in the modern technologies, Materials used and testing methods used in Electrical Equipments and evaluate appropriate materials according to desired specifications.

Guest Lecture on “Life Skills and Opportunities in defence for Electrical Engineers”

An Expert Guest Lecture on “ Life Skills and Opportunities in defence for Electrical Engineers" by Mr. Pawan, DYSP, Defence Ministry of India on 15/10/2016 for the VII Semester Students to gain knowledge in the modern technologies. Working within teams to implement solutions in leading edge technology (including field programmable gate arrays (FPGAs), system on a chip (SoC) devices, microcontrollers, high bandwidth memories, and high speed communication interfaces). Participating in internal technical meetings and peer design reviews

Name of the Invited Speaker	Title of the Lecture delivered	Date of the Lecture
Dr. K Santhy, Head Material Science Engg, Care group of institutions, Trichy	Materials for special applications and Modern Techniques for Material Science in Electrical Engineering	21/10/2016 22/10/2016
Mr. Pawan, DYSP, Defence Ministry India	Life Skills and Opportunities in defence for Electrical Engineers	15/10/2016
Smudranil Chatterjee	The Opportunities in Higher Studies Abroad	27/09/2016
Mr. Sree Ram Gopal, Founder/Architect, Stack Solutions, Bangalore	Industrial Networks on IP Internet Protocol(Cisco Networking)	08/09/2016
Dr. K. Vinodh Kumar Sr. Scientist, ABB Ltd	Introduction to non-linear system analysis	14/09/2016
Prof Satish Dept. of EEE, NHCE	Applications of signals and systems	08/08/2016

SARGAM 2016 - A STATE LEVEL INTER COLLEGIATE CULTURAL FEST

The cultural extravaganza, SARGAM 2016, the annual state level inter-collegiate fest was organized by New Horizon Educational Institution on 10th and 11th of September 2016. Day 1 of SARGAM turned out to be a huge success. The participants, students, faculty and management who were part of the events at SARGAM 2016 enjoyed the fest alike and cheered on for all the events held at different venues in the New Horizon College of Engineering campus (NHCE) at Marathalli. More than 15,000 students from over 150 colleges across the state were present at SARGAM-2016 and around 2500 of them took part in various events this year. Major Student Cordinators are from EEE department.

First Year Induction Programme

New Horizon College of Engineering conducted induction program for 1st year BE courses on 1st August 2016. Chief Guest for the morning session was Dr. Nandan Nilekani , Ex- Chairman, UIDAI. The program was presided over by Dr. Mohan Manghnani, Chairman, NHEI.

Republic day celebration

Deepavali celebrations at campus

Kannada RajyotsavaDay celebrations

Birthday Celebration of Dr. APJ Abdul Kalam

70TH INDEPENDENCE DAY CELEBRATION

The 70th Independance Day was celebrated with great fervor and enthusiasm in the New Horizon College of Engineering. On this occasion Dr.R. Bodhisatvan , Principal, NHC hoisted the National Flag . Dr.Manjunatha , Principal , NHCE delivered the 70th Independance Day Address to the gathering.

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