

Bhilai Institute of Technology, Durg

Communique-EEE

Department of
Electrical and Electronics

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From the Editors

All of us do not have equal talent. But, all of us have an equal opportunity to develop our talents.”

- A.P.J Abdul Kalam

“A journey of thousand miles starts with a single step”

It is a proud moment for all of us to unveil the first issue of our departmental Newsletter *Communique-EEE*. The main objective is to share glimpses of our department, the hidden talents of the students and motivate them to achieve an all-round personality to face challenges and cut-throat competitions in future.

It is anticipated that students and faculty avail this opportunity to display their creative ideas. We hope this newsletter will be instrumental in enhancing communication and innovativeness amongst our students and faculty. We look forward to its being a continual source to inspire and aspire to excel.

Laurels

INSIDE THIS ISSUE

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Standup India

- Mr. Abhishek Verma (faculty) was awarded Ph.D., by C. V. Raman university and was guided by Dr. Anup Mishra.
- Himanshu Gupta, secured first position in the event Trekk On, Wissenaire 16, IIT Bhubaneswar.
- Himanshu Gupta, 6thsem, secured third position in the event KICK OFF, Wissenaire 16, IIT Bhubaneswar.
- Sonal Jha, 7thsem, has been selected for summer Research Internship at IISC Bangalore, 2016
- Punit Srivas, 7thsem, secured first position in solo singing competition in the youth fest conducted by CSVTU, Bhilai.
- Sonal Jha and Aman Gupta, 7thsem were selected in India's leading IT firm TCS during campus recruitment.

Snippets

Did You Know?

"A **memristor** is a semiconductor component that limits or regulates the flow of electrical current in a circuit and remembers the amount of charge that has previously flowed through it."

- i. Wireless light switch firm EnOcean has introduced a Bluetooth LE version of its battery-free wireless light switch technology.
- ii. Fujitsu Laboratories has developed a CMOS-based millimeter-wave signal generator capable of modulating its frequencies across a wide band of 76-81 GHz at the world's fastest speeds.
- iii. National Instruments has demonstrated a simulator that allows the radar systems of self-driving cars, and the algorithms behind them, to be tested in limited space, without the car moving.
- iv. Toshiba microcontrollers allow a single-chip, with a 32 to 64 pin-count, to control multiple motors.
- v. Matrix headlights are effectively projectors, capable of sending individual beams of light in front of the vehicle and in conjunction with cameras and algorithms, allowing the parts of the beam that would dazzle on-coming drivers to be turned off dynamically.
- vi. A Leicester-based company is developing the technology to allow large structures such as radio antennas and solar cells to be manufactured in space.
- vii. Imagination Technologies has launched the MIPS Warrior I-class I6500 CPU, targeted at applications such as advanced driver assistance systems and autonomous vehicles.

Word World (olympics)

*deca*thlon

an athletic contest consisting of ten different events

vault

the act of jumping over an obstacle

repechage

a race (especially in rowing) in which runners-up in the eliminating heats compete for a place in the final race

pommel

a handgrip that a gymnast uses when performing exercises

riposte

a counterattack made immediately after successfully parrying

What does the future of engineering hold?

Engineers are being split into two groups: One that is threatened by future change and one that is excited by the possibilities that the future brings.

Ryan Nabozniak

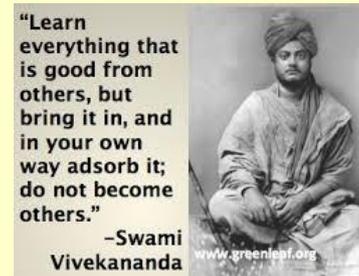
A Consultant Engineer from Autotec, 10/13/2016

What's happening in the industry now is pushing the whole field of engineering out of its comfort zone and requiring it to grow. This change is causing a fundamental shift in how and where engineering and construction work is done. The shift is split into two groups. The first group is uncomfortable because it threatens what they know. The second group is excited by the shift and sees endless opportunity.

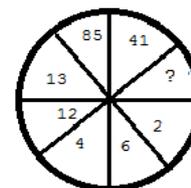
Breaking the barrier

Garima Rahangdale, 3rd sem

A village boy decided to quit engineering due to language problem. But the sense of his parent’s dream made him face the challenge. There he came across the dictionary for the first time. Studying sincerely he became a scholar engineer, inspired by his own success, “helping people with language difficulties” became his life mission. He is conferred with the honorary title of “Dictionary Man” and “wordsmith” by public. He has been felicitated by the President of India and awarded as the youth icon by Times group. He is none other than Sunil Khandbahale the founder of KHANDBAHALE.COM a free multilingual dictionary.



CONUNDRUM



Answer in the next issue

Startup India, Standup India

Ayush Agrawal, 5th sem

On April 17, 2015, the Ministry of Commerce and Industry released a notification to define ‘startups’. There were many points that were consistent from the speech given by Prime Minister Narendra Modi during the unveiling of the ‘Startup India, Standup India’ policy. According to the government notification, an entity will be identified as a startup.

1. Till up to five years from the date of incorporation.
2. If its turnover does not exceed 25 crores in the last five financial years.
3. It is working towards innovation, development, deployment, and commercialisation of new products, processes, or services driven by technology or intellectual property.
4. Another observation leads to the fact that an entity shall be considered a startup only if it aims to develop and commercialise - a new product or a service or a process or significantly improves on a product or service or process which will add significant value for customers or workflow.

Pioneers

	Alessandro Guiseppo Antonio Anastasio Volta (b. Como, Italy, 18th Feb.1745, d. Como, Italy, 5th March 1827) was a pioneer in the field of electricity. The SI unit of electric potential was named after him as the Volt.
	André-Marie Ampère (b. Lyons, France, 22nd Jan. 1775, d. Marseilles, France, 10th June 1836) was a mathematician, a chemist, a physicist and a philosopher. The SI unit of electric current was named after him as the Ampere

VISION

To impart education and transform students into competent professionals in Electrical and Electronics Engineering to excel in various challenges to serve society.

MISSION

To educate the students by inculcating vivid fundamental concepts and skills.

To provide dynamic and disciplined environment with rich cultural, ethical and social sensitiveness.

To equip the students to perform effectively as professionals in various fields of Electrical and Electronics Engineering.

PROGRAM EDUCATIONAL OBJECTIVES

PEO 1: Understand and apply the concepts of Mathematics, Physics and Chemistry necessary for engineering practice.

PEO 2: Make prudent use of resources to become graduates of comparable professional competence in the field of Electrical and Electronics Engineering.

PEO 3: Prepare for the professional development through self study and professional studies in engineering as well as business management to be fit the needs of industries.

PEO 4: Understand concurrent issues and Practice professional and ethical responsibilities to influence the society through engineering solutions.

PEO 5: Flourish technically and intellectually through perpetuated learning.

PROGRAM SPECIFIC OUTCOMES

PSO 1: A strong foundation of the fundamentals in mathematics, science, and Electrical and Electronics engineering and an ability to apply them.

PSO 2: The Knowledge of experimentation, data interpretation, presentation and analysis of the results in the field of Electrical and Electronics Engineering.

PSO 3: An ability to design a system and conduct experiments in vital courses of the program (Circuits, Networks, Electrical Machines, Digital and Analog Electronics, Power system Analysis and Protection, Electric Drives, etc.) to satisfy desired performance specifications.

PSO 4: An ability to identify, formulate and analytically solve engineering problems in Electrical and Electronics Engineering with the aid of Modern Engineering tools and Software like E-TAP, P-SIM, ,MATLAB, SIMULINK, PROTEUS, MULTISIM, etc.

PSO 5: An ability to understand professional ethics and responsibilities.

PSO 6: Team spirit to work with others to execute professional and social activities.

PSO 7: An ability to incorporate economic, environmental and safety consideration in the design processes.

PSO 8: Knowledge on upcoming contemporary issues in Electrical and Electronics Engineering and interdisciplinary areas.

PSO 9: A motivation and an ability to engage in life-long learning through advanced studies.

PSO 10: An understanding of the impact of engineering solutions on global issues.