Real Innovations ..more than your imaginations
True Commitment ..more than your expectations

Campus Connect.. *monthly news bulletin*

Department of EE & EEE
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Editorial:

*The department of EE & EEE is coming forward by re-launching Department monthly magazine in a new dimension. Even though few news bulletins are released in the names of TESLA, Energy club, Career club, etc., but, it has been decided to group all activities in a common platform called " **Campus connect"** with a strong motive of connecting the departmental level activities to all stakeholders.*

We kept all our efforts to highlight the activities of UG, PG & Ph.D. students, Alumni, faculty contributions to reach out academicians, industry personnel, research organizations, parents & Alumni through Campus Connect monthly news bulletin. ***Editor***

Cover Story:
Future Job Scenario of EE & EEE branches

The Electrical Engineering market in India is expected to see extraordinary growth as the projection for '**Net Electrical Engineering Market**' is **USD 100 Billion**. It is anticipated that the growth of generation equipment segment might reach up to Rs. 125,000 crore whereas T&D equipment segment will touch the figure of Rs. 375,000 crore. On the other hand, the partnership of Indian Electrical Engineering in global EE trade will increase to newer margins 2% by 2022,(it is very high by comparing with other sectors) which is currently hanging around 0.8%. The import rate is also expected to decrease by 7-8% due to continual advancements in Indian Electrical Engineering.

The aforesaid statistics shows that Indian Electrical Ecosystem is on the right path and the scope is all set to increase every day. As far as job opportunities are concerned, the report of Vision ***2022 says that there will be direct recruitment of 1.5 million and indirect recruitment of 2 million electrical engineers.*** This initiative or vision is all about the ambitions and capabilities of the Indian electrical equipment industry.

[Source & reference:
https://www.mahindraecolecentrale.edu.in/blogs/scope-of-electrical-and-electronics-engineering]

Present global scenario is looking towards Renewable energies, clean energy, Smart grid, Hybrid electrical vehicles, smart cities, energy conservation approaches etc., Electrical engineering jobs represent about 25% of total available jobs in Engineering! The Present power generation capacity in India is very less and it is going to be increased 2 to 3 times within 5 years. Hence the Job opportunities in Power generation & transmission sector also will increase to 2 times. In India 30 % of the government jobs are from Electrical Engineering sector only.

The latest trends of Artificial Intelligence, Data Analytics, Machine learning, Block chain Technology, Cyber security are customized as per the needs of Electrical Engineering and more number of job opportunities are available those who are expertise with the background of Electrical based specializations. Departments of EE & EEE, GIET University

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Success lies in the efforts and not in the results. Being the best is not important at all. Doing the best is all that matters the most. Being the best is the result of our doing best.

Events Gallery: *Series of events to explore the latest Industrial technologies*

















Students Corner: curricular, co-curricular, extra-curricular activities





-Mr. Rahul Mohanty,
-Mr. Adil Khan &
-Mr. Atindra Rout
[2018-22, EE & EEE]

won 1st prize in 'Robo soccer' event held at CET Bhubaneswar in a Annual Tech Fest.







Mr. Kaibalya Panigrahi [2017-21, EE] developed a low cost automatic hand sanitizer dispenser in this pandemic situation and sold many units towards his goal of becoming an Young Entrepreneur.

Class Test -1: Semester Wise Toppers



Mr. Raj Rajeswar Mohanty
17EEE023—86.67 %



Mr. Rahul Kumar Mahto
17EE102—90.67%



Mr. Soumya Ranjan Sahoo
18EEE008 -94.00 %



Mr. Abinash Panigrahi
18EE013 —89. 33 %





Mr. Jhakeshan Pradhan
19EE001—81.11 %



Mr. Anurag Vasta
19EEE007—80%

100 % attendance up to 14th October 2020—Sem. Wise students list:

17EE094-Rishabh Raj
17EE098-Ashish Kumar Sahu
17EEE003-R. Shital Kumar
17EEE101-Soumya Ranjan Prusty
18EEE003-Atindra Raut
18EEE008-Soumya Ranjan Sahoo
18EEE016-Sunny Kumar Prajapati
18EE005- MD. Aadil Khan
18EE007-Sankar Sethi
18EE011-Shatabdi Rath
18EE013-Abinash Panigrahi
18EE015-Pradeep Behera
18EE030-Sanjay Mohanty
19EE001-Jhasaketan Pradhan
19EE003-Ayushman Patra
19EE009-Gouri Sankar Mohanty
19EEE030-Shree Ganesh

Department Best Practices & Outcomes



Electrical & Electronics Engineering
&
Electrical Engineering

One Degree, A world of Opportunities

Specializations in...

Power systems & Power Electronics
Computer Science Engineering
Renewable Energy Systems
Artificial Intelligence & Machine Learning
Robotics & Automation

- *Theory & Practical's blended Teaching*
- *Project based learning with semester wise mini project*
- *Mini & major projects emphasises on*
  - Case studies & Simulation analysis
  - Hardware based designs
  - Latest industrial based projects
  - Innovative prototype models
  - Integrated with DST & MSME funding projects
  - Start-up based concepts leading to commercializing
  - Patentable concepts with industry Collaborations
  - International Journal publications
  - Based on latest Thrust and Emerging areas
  - Inline with theory subjects, labs & Seminars

Career Club, Energy club, IEEE, IE, ISTE, SESI student chapters to enhance technical & communication skills, to offer industrial internships, Consultancy works etc.,

Updating Departmental labs on regular labs to cater the needs of Industrial requirement
List of last 3 years laboratories with add on experiments facilities:

- ◊ Energy management & Auditing lab
- ◊ IOT lab
- ◊ Green technologies Lab
- ◊ Open Source Simulation lab

Outcomes @ Department Best practices photo gallery



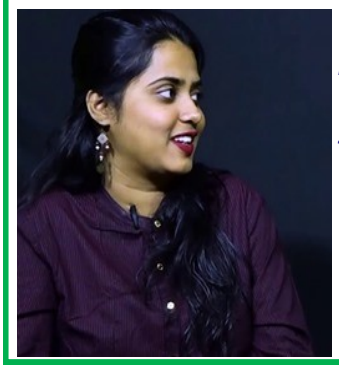





Alumni Corner: *Success Stories*



Ms. Smaranika Tulo, [EE Dept: 2013-17] secured all Odisha 10th position in OPSC (OAS) - 2019



Ms. Ipsita Rath [EE Dept. 2012-16] given a playback singing in movie "The last Color" which has been nominated for Oscar.



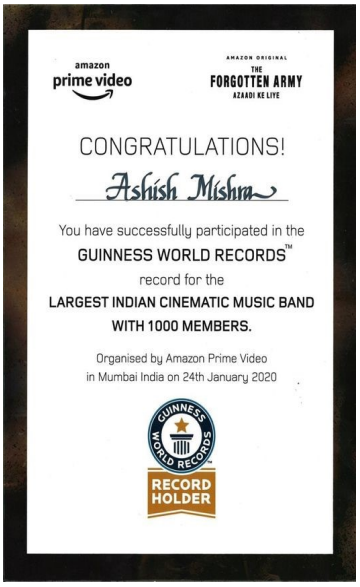
Mr. R. Nikhil Kumar [2011-15,EEE] started a startup "The Waterapp", India's first drinking water delivery app



Mr.Ambika Prasanna Dhal [2011-14, EE] along with his friends started a **startup "NinthSem"** *India's first and only skill based Digital Learning platform which provides training and guidance to engineering students and aspirants of the Core and Non-IT industries.*



Mr. Nawal Kishore [2007-11,EEE] working in Indian Railways as Senior Section Engineer went to Paris & Switzerland to attend for a technical training organized by Railway dept.



Mr. Asish Mishra, [EE Dept. 2013-17] participated in "Guinness Book of World Records" for the largest Indian Cinematic Music Band with 1000 members.

Its our sincere request you all EE & EEE alumni to share all your achievements, present status, professional activities etc., to campus connect.

Alumni Photo Gallery @ GIET Campus ..Flashback memories

FLASHBACK







Research , Development & Demonstration



Ongoing Industry Sponsored Projects



Enhancing Distributed Generation system through AC-DC micro grid with Solar PV based Pico hydro system : ***2.15 Lakhs***
[Industry sponsored project]
Principal Investigator: ***Mr. Tapas Ch. Singh***

Ongoing DST, Government of India Sponsored Projects

Title of the Project: Energy performance of a domestic grid-tied Zero Energy buildings integrated with onsite renewable energy technologies
Project Cost: 34.44 Lakhs
Research facilities created so far:

- *Solar & wind hybrid system (Vertical & Horizontal) with a DC and AC microgrid*
- *IOT dashboard system to monitor the entire energy pattern of a Zero Energy building to access through Smart phone.*
- *IOT based Solar hot water system*
- *Test Beds created: Sunshade, Window glasses cooling & heating parameters testing facility*





Title of the Project: Development of Pico Hydropower system with Solar pumping in Tribal/Hilly areas
Project Cost: 31.78 Lakhs
Research facilities created so far:

- *Solar – AC & DC micro grid for rural application*
- *Integration to Solar pumping system to Wind power*
- *Hybrid controller with Solar pumping and Solar PV power generation integrated with IOT for better monitoring and optimization.*

Design, Simulation & Maintenance of 125kwp Solar rooftop power station—I Phase by Dept. expertise team


Measuring light intensity by using Lux meter


Measuring the tilt angle of the panel by using inclinometer




Measuring the temperature of panels by using infrared thermometers


Estimating the solar panel size as per the load requirement

Highlights of the 125kwp—Solar Rooftop PV project :

- ***Average daily generation 450 to 500 Units***
- ***Saving of approximately 60,000 to 75,000 electricity bill per month***
- ***Integrated to grid and inline with Diesel generators to save the diesel consumption***
- ***Saving of approx. 32 tons of CO_2 emissions annually.***
- ***Payback period of 4.6 years***
- ***Future extension to Smart Grid system***