



BIRLA INSTITUTE OF TECHNOLOGY, MESRA

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**PLACEMENT
BROCHURE
2021 - 22**

Department of
ELECTRICAL & ELECTRONICS ENGINEERING

Programmes Offered :

Undergraduate Programmes

- B.Tech. in Electrical & Electronics Engineering (4 year)

Post-Graduate Programmes

- M.Tech. in Power Systems
- M.Tech. in Power Electronics
- M.Tech. in Control Systems

Doctoral Programmes

- Ph.D. degrees are offered by the Department in Electrical and Electronics Engineering related disciplines as well as



The Department of Electrical & Electronics Engineering is dedicated to the current needs of industry with the flexibility to tune its programmes according to different requirements. Application of new technology in various fields is one of the main focuses in the activities of the department. Department of EEE has recently received grants amounting to Rs. 2.7 Crore from UGC, DST, AICTE, CDAC, TEQIP etc. to strengthen the research facility for the development in design and development of lightning protection system etc. The domain of Smart Grid, Energy Efficient Electrical Motor Drives, Department of EEE has MoUs with University of Padova, Italy and with other Industries.

Imparting strong fundamental concepts to students and motivate them to find innovative solutions to engineering problems independently. Developing engineers with managerial attributes capable of applying appropriate technology with responsibility. Creation of congenial atmosphere and ample research facilities for undertaking quality research to achieve national and international recognition by faculty and students. To strive for internationally recognized publication of research papers, books and to obtain patent and copyrights. To provide excellent technological services to industry for the benefit of society.



LABORATORIES

- Basic Electrical Laboratory
- Electrical Machines Lab.
- Electrical Measurement & Instrumentation Lab.
- Power Electronics Lab.
- Soft Computing and Virtual Instrumentation & Signal Processing Lab.
- Power System Lab.
- Control System Lab.
- Project Lab.
- Process Measurement & Control Lab.
- Lighting Project Lab.
- Electrical Workshop
- Smart Grid Lab.
- Magneto Optic Material Based Lab.
- Drives Lab.

OTHER MAJOR FACILITIES

The Department has Power System Lab, Control System Lab, Electrical Measurement & Instrumentation Lab, Electrical Machines Lab, Power Electronics Lab, Soft Computing Lab and Virtual Instrumentation and Signal Processing Lab., Drives Lab., Electrical Workshop, Smart Grid Lab. The major equipments in Power System Lab are generator protection scheme, static VAR compensator, network analyzer, power factor controller, induction type and numerical relays, 3-phase transformers etc.

The main equipments in Control System Lab includes inverted pendulum, bouncing ball apparatus, coupled tank control, Mechatronics kit, and a range of DSP kits including TMS320C2812, TMS320C6713, TMS320C5416, dSpace ACE kit (1102 & 1104), DSP starter kit. Machine Lab consists of a number of sets of 3-phase induction motor, D.C. motor and generator set, alternators and transformers.

The department also enjoys the central facility created under TEQIP for Soft Computing Lab, Virtual Instrumentation and signal Processing Lab where students perform their simulation, design and implementation of the real time problem using MATLAB and its toolboxes, PSIM, PSCAD, Labview PCI6221 – M series, ETAP, integrated engineering software, Data logger Net. etc.

The department has been a center for research in various related fields of study from time to time. The department has various collaborative projects with neighboring industries like RDCIS (SAIL); Meditron Pvt. Ltd., Ranchi and Century Transformer Pvt. Ltd., Kolkata etc.

Publications :

- B. Appasani and D. K. Mohanta, "A Two-Stage Markov Model Aided Frequency Duration Approach for Reliability Analysis of PMU Microwave Communication Networks," Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, Vol. 233, no. 3, pp.355-368.
- Nilesh Kumar Rajalwal, Debomita Ghosh, "Recent Trends in Integrity Protection of Power System: A Literature Review", International Transaction on Electrical Energy Systems, Wiley. pp. 1-43.
- Sourav kumar Sahu, Debomita Ghosh, "Hosting Capacity Enhancement in Distribution System in Highly Trenchant Photo-voltaic Environment: A Hardware in Loop Approach", IEEE Access, Vol.8, pp.14441-14451.
- Deep Shekhar Acharya, Subrat Kumar Swain, Sudhansu Kumar Mishra, "Real- Time Implementation of a Stable 2 DOF PID Controller for Unstable Second-Order Magnetic Levitation System with Time Delay", Arabian Journal for Science and Engineering, Springer, Vol.45(8), pp. 6311-6329.

Research Areas :

- Power System Analysis
- Control System Analysis
- System Reliability Analysis
- Application of Power Electronics in Vehicle System and Power System
- Multi-level Converter, DC to DC Converter
- Lightning Protection System
- Magneto Optic Sensors
- Systems Biology
- Control system for desired tensional/compression rolling in hot rolling mill.
- Control of dynamical systems.
- Study and design of observer and controller for induction motor.

EEESoc aims to work as a bridge between students and professors. We organize many student activities to enrich their skills and fulfil society's main objective. Walking on this road, a website (eesocbit.com) has been created by the executive body of EEESoc through which we can share information about all departmental activities.

The major events organized by EEESoc are:

PROJECT PROGRAMMES

a) SPP

The sole purpose of this Programme is to get students acquainted with MATLAB, Arduino, Electronics, Python, Digital Image Processing, Machine Learning, etc. This Programme is conducted for 2nd semester students during their summer break. Participants with innovative projects get recognized with a certificate of merit.

b) SMP

One of the major project programme organised by EEESoc characterizing innovative as well as creative projects related to complex Electrical and Electronics, and also gives the opportunity to gain hands-on experience. Participants also get the opportunity to work under the mentorship of their seniors to create some worthy projects which add weight to their resume.

WORKSHOPS

a) MATLAB and SIMULINK Workshop.

b) Applied Power Electronics Workshop.

OTHERS

a) Induction Program for first-year students.

b) Interview Experience of final year students.

c) EEESoc Sessions.

- ▶ Mr. Vivek Gupta, BE Electrical and Electronics Engineering was runner up of BC Talent Development Program organized by ZS Associates in 2020.
- ▶ J. Sudarshan Nayak and Salini Mohapatra secured Certificate 'C' of NCC.
- ▶ Sourya Krishna, Kishan Kumar, Richa Raj, Pallavi Singh and Jyothir Latha Aakula secured AIR 50, 5059, 7089, 9141 and 5560 respectively in GATE 2020.
- ▶ Mr. Narendra Mohan Jha, ME Power System Student has Obtained Top Rank in Selection of Senior Scientific Assistant (Electrical) in Directorate General of Aeronautical Quality Assurance, Dept. of Defence Production Ministry of Defence, conducted by UPSC, Concluded in July, 2017.
- ▶ IETE-Technomedia Award for Young Women in Engineering (2015): The Institution of Electronics and Telecommunication Engineers awarded IETE-Technomedia Award for Young Women in Engineering (2015) to Dr (Mrs.) Sarbani Chakraborty of Department of Electrical and Electronics Engineering, BIT, Mesra, Ranchi for her significant contribution in the field of ' Sensor design using magneto-optic devices and utilizing new concepts and systems. ' The award consists of a Citation, Medal, Plaque and a cash prize of Rs.5000/-.
- ▶ Research intern at Illinois Institute of technology.

The students have in them a varied sense of understanding in the current methods and operating procedures by the help of subsequent internships during summer and winter breaks. In order to facilitate the students with new advancements the department also ensures industrial visits over the period of semester so that students are convinced by practical means of theoretical sorts. These are some of the places wherein our students have worked as interns:

Industries:

- Wells Fargo
- Axis Bank Limited
- CCL
- Electric Fish Energy
- BNR Securities
- Linde Engineering India
- Tata Steel
- Games24x7
- Walmart Global Tech
- National Instruments Innovation Center
- NTPC Limited
- PwC
- Netcamp Solutions Private Limited
- Central Coalfields Limited

Institutes:

- Illinois Institute of Technology, Chicago
- Indian Institute of Technology, Indore
- IT'S engineering College, Greater Noida
- DRDO
- York University

- Growth per hour
- Hex n bit
- Vbuild
- SAIL
- MECON LIMITED
- Doormonk.in
- Technocolabs Softwares
- Worldwide Machinery Solutions Pvt Ltd
- Tata Steel long Products Limited
- Tevantron technology Pvt ltd
- Bolt iot
- Tech Vedika Software Pvt Ltd
- Samsung research institute
- ZS Associates
- Hindalco

Deloitte.

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AXIS BANK

TATA STEEL

wipro

TATA
TATA STEEL LONG PRODUCTS LIMITED

Capgemini

pwc

orient electric

UO
Mu Sigma

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ERICSSON

ZS

ORACLE

FORSYS
Forward Thinking
ISO 9001:2015 Certified Company

Futures First

accenture

paytm

Cognizant

TATA POWER

At Addverb Technologies

vedanta
transforming elements
VEDANTA LIMITED

KPMG

MARUTI SUZUKI

stellium

SYNOPSIS

Few of our proud
RECRUITERS



Thank You

for your Time & Attention !

Contact Us :

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