



ABOUT THE INSTITUTE

BIT, Sindri was started as College of Mechanical and Electrical Engineering in 1949 under the dynamic leadership of Prof. D. L. Deshpande, Director, regarded as the architect of the institute. It has a sprawling campus of about 450 acres of land near the eastern bank of river Damodar at a distance of 28Kms from Dhanbad railway station linked by rail as well as road. The institute is fully residential for students as well as teaching and non-teaching staff. The institute is administratively governed by the Department of Science and Technology, Government of Jharkhand and is academically affiliated to Jharkhand University of Technology, Ranchi. All the offered UG and PG courses are approved by AICTE and most of the undergraduate programs are accredited by the NBA.

The main aim of the institute is to provide valuable human resources for the industry and society through excellence in technical education and research for sustainable development. The college offers B.Tech courses in 10 disciplines of engineering namely Mechanical, Electrical, Metallurgy, Production & Industrial, Chemical, Electronics & Communications, Civil, Mining, Computer Science, and Information Technology. Additionally, the institute also offers M.Tech specializations and Doctorate. The college possesses modern amenities which include multimedia auditoriums, seminar rooms, class rooms, state-of-the-art well-stocked rich E-library, well-equipped modern laboratories and campus wide network & state of art Siemens lab which is regarded as Centre of Excellence to meet the industry 4.0 demand.



ABOUT THE DEPARTMENT

This was the pioneer branch at the institute in 1949. The department offers 4 years B.Tech. Degree course with an annual intake of hundred students. It also offers Doctorate Degree and M.Tech. Degree course with specialization in Control System and Power System. It is also look after an electrical sub-station and maintain the distribution line of BIT campus. The department pose well equipped laboratories required in all the 3 courses. The prestigious million volt Atkinson High Tension Laboratory, first of its kind in India is under the department supervision.

VISION OF THE DEPARTMENT

To emerge as a globally recognized center in the field of Electrical Engineering to provide valuable human resource and ambience for innovative research for sustainable development of industry and society.

MISSION OF THE DEPARTMENT

- ❖ To offer state-of-the-art undergraduate, post graduate and doctorate programmes by providing a conducive environment towards outcome-based teaching learning process with knowledge and skill creation, suitable for contemporary and future needs of industry.
- ❖ To promote creative ambience in order to generate new knowledge by conducting quality research in collaboration with Electrical, Electronics and allied industries.
- ❖ To bridge the gap between industry and academia by framing curriculum and syllabi based on industrial and societal needs so that competency of the students matches the upcoming challenges in education, profession and life.
- ❖ To instill moral and ethical values among the students through holistic personality development so as to ensure human intellectual capacity to its full potential.

ONE WEEK WORKSHOP ON

ELECTRIC VEHICLE: CHALLENGES AND OPPORTUNITIES

(EVCO-2022)

(Virtual Mode)

22nd – 26th August, 2022



Organized by
Department of Electrical Engineering
BIT Sindri, Dhanbad
Jharkhand-828123 (INDIA)

www.bitsindri.ac.in

Technically Co-Sponsored by

IEEE
KOLKATA SECTION

ACDOS



SCOPE OF THE WORKSHOP

The Electric Vehicles (EVs) are playing major role for reducing greenhouse gases such as carbon dioxide, methane, nitrous oxide, water vapor and chloro-fluorocarbons etc. However, the use of EVs is experiencing numerous challenges like long driving ranges, size, cost, charging time and many other limitations. Therefore, solution for the above challenges is the development of advanced technologies such as charging infrastructure, battery swapping, battery management and electric vehicle power train drive systems etc.

As the topic of the workshop suggest, all the known challenges will be opened and their respective opportunities will be discussed briefly.

OBJECTIVES OF THE WORKSHOP

- ✓ To address the challenges in the efficient design of power converters through advanced controller techniques towards electric propulsions.
- ✓ To provide an opportunity for students, academia and industry to gain insights into electric vehicle technology.

COURSE CONTENT

- ❖ Conversion of Conventional Vehicle to Electric Vehicle.
- ❖ Essentials of Battery Systems & Battery Management System.
- ❖ Electric Vehicle using MATLAB and Simulations.
- ❖ Integration of Electric Vehicle to Grid.
- ❖ Design and Optimization of EV Drive Trains.
- ❖ List to long (*to mention here*).

EMINENT SPEAKERS

Are globally recognized personalities from institutes and Electric Vehicle Industry.

- ❖ Dr. Akshay Rathore, *Singapore University*
- ❖ Dr. Santosh Kr. Singh, *IIT BHU, Varanasi*
- ❖ Dr. S. Sengupta, *IIT Kharagpur*
- ❖ Dr. H. M. Dubey, *BIT Sindri, Dhanbad*
- ❖ Dr. Vineet Shekhar, *BIT Sindri, Dhanbad*
- ❖ Dr. Abhinav Saxena, *JSSATE, Noida*
- ❖ Dr. Naveen K. Marati, *Hitachi Energy Ltd.*
- ❖ Dr. Naresh K. Pilli, *Bosch Ltd*
- ❖ OPAL RT® Experts

WHO CAN ATTEND

This workshop would be beneficial to the Research scholars/ undergraduate and Post graduate students/Faculty members/Scientists from industry and research Institutes

REGISTRATION

There is **NO** registration fee for participants. It is mandatory for all the interested participants to register using the following link:

<https://forms.gle/c5j3iis6frzQ1hUK7>

Eligible participants will be selected based on first come first serve basis and will be intimated by e-mail only.

CERTIFICATION

E-certificate will be provided to those participants who have attended the program with minimum 80% attendance.



ORGANIZING COMMITTEE

Patron

Prof. (Dr.) D. K. Singh, *Director, BIT, Sindri*

Convener

Dr. Md. Abul Kalam, *Head, EE, BIT Sindri*

Dr. Pankaj Rai, *EE, BIT, Sindri*

Course Coordinator

Dr. Amit Kumar Choudhary, *EE, BIT Sindri*

Mr. Mukhlesur Rahman, *EE, BIT Sindri*

Mr. Praveen Kumar, *EE, BIT Sindri*

Advisory Committee

Dr. Radhakant Padhi, *IISC, Bang.*

Dr. Sushmita Mitra, *ISI, Kolkata*

Dr. Upendra Prasad, *BIT, Sindri*

Dr. D. K. Tanti, *BIT, Sindri*

Dr. Nirmala Soren, *BIT, Sindri*

Dr. Rajendra Murmu, *BIT, Sindri*

Prof. Shashi Minz, *BIT Sindri*

Contact Persons:

1. Dr. Amit Kumar Choudhary

Assistant Professor, Dept. of Electrical Engg.
BIT Sindri, Dhanbad-828123, Jharkhand.

Mob: +91 9451640369

Email: amit.ee@bitsindri.ac.in

2. Mr. Mukhlesur Rahman

Assistant Professor, Dept. of Electrical Engg.
BIT Sindri, Dhanbad-828123, Jharkhand.

Mob: +91 8789484415

Email: mrahman.ee@bitsindri.ac.in

3. Mr. Praveen Kumar

Assistant Professor, Dept. of Electrical Engg.
BIT Sindri, Dhanbad-828123, Jharkhand.

Mob: +91 9798682966

Email: praveen.ee@bitsindri.ac.in