

# Department of Electrical Engineering

Indian Institute of Technology (Indian School of Mines) Dhanbad



## VIBHAV



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Monthly Newsletter

### MESSAGE FROM HoD's DESK

By PROF. SUKANTA DAS



Dear All,

Hope you are doing well!

With a great pleasure, I hereby introduce 'June' edition of the Monthly Newsletter of the Department of Electrical Engineering: "VIBHAV".

The month of June 2025 marked a significant milestone for the department, as we successfully organized our first GIAN course under the leadership of Prof. Dushyant Sharma. The course featured Prof. Anil Pahwa, University Distinguished Professor from Kansas State University, U.S.A., as the esteemed foreign expert. A comprehensive report on the course is provided on Page 2 of this edition of the Newsletter.

I encourage you to explore this issue and invite our students to contribute actively toward enhancing the quality and reach of our Monthly Newsletter. You are requested to forward your constructive comments to [ee@iitism.ac.in](mailto:ee@iitism.ac.in) for the betterment of the forthcoming editions of "VIBHAV".

Thank you all.

Best wishes.

### ABOUT THE DEPARTMENT

The Electrical Engineering department was established in the year 2005. The four-year B.Tech. program in Electrical Engineering was started in the academic session 2006-07. Although the Department of Electrical Engineering is one of the latest of the existing departments of the Institute, the Electrical Engineering Section existed as a part of earlier Mining Machinery Engineering department from 1975. Apart from different B.Tech. programs, the department at present also offers M.Tech programs in Power System Engineering and Power Electronics & Electrical Drives. Through funded projects, consultancies, Doctoral, and postdoctoral programs, most of the research activities are being carried out in the department.

### PUBLICATIONS

#### Journals

- D. Mishra, **A. Baral** and S. Chakravorti, "An Efficient and Fast Non-Destructive Testing Method for Estimating DP Value of Oil-Paper Insulation," *IEEE Transactions on Plasma Science*, (Accepted, Paper ID: TPS17035In press), DOI: 10.1109/TPS.2025.3582410, 2025.
- Banerjee, S., and **T. Maity**, "Energy recovery from mine ventilation exhaust air using hybrid Savonius–Darrieus vertical axis wind turbine," *International Journal of Ventilation* <https://doi.org/10.1080/14733315.2025.2521568>, June 2025.

- S. Kumar, K. R. Khan, **V. L. Srinivas**, G. Shankar, R. K. Saket, and **K.C. Jana**, "Electric Vehicle Fast Charging Integrated with Hybrid Renewable Sources for V2G and G2V Operation," *IEEE Transactions on Industry Applications*, Early Access, 2025.
- S. B. Mitikiri, K. V. S. M. Babu, D. Dwivedi, **V. L. Srinivas**, P. Chakraborty, P. K. Yemula and M. Pal, "Cyber-Physical Security in EV Charging Infrastructure : Components, Vulnerabilities, and Defense Strategies," *Sustainable Energy Technologies and Assessments*, Accepted, 2025.

### GIAN COURSE

- A GIAN course on "Operation and Control of Distribution Systems with Renewable Energy Sources" was organized during 16-20 June, 2025.

Coordinator: **Prof. Dushyant Sharma**

### OUTREACH ACTIVITIES

- A MOU is signed between IIT (ISM) Dhanbad and Mine Line Pvt Ltd, Kolkata, the leading manufacturer of Electrical Equipment in Underground Mines, for development of new products suitable for underground mines.
- **Prof. Nitai Pal** acted as an IIC Expert, Institution's Innovation Council, MoE's Innovation Cell, AICTE.

## 5-Day GIAN Course on “Operation and Control of Distribution Systems with Renewable Energy Sources”

The Department of Electrical Engineering, IIT (ISM) Dhanbad, organized a 5-day GIAN course on “Operation and Control of Distribution Systems with Renewable Energy Sources” during 16-20 June, 2025. **Prof. Dushyant Sharma**, Assistant Professor, Department of Electrical Engineering, was the coordinator of the course, while **Prof. Anil Pahwa, University Distinguished Professor, Kansas State University, U.S.A.**, was the foreign expert in the course. The course was attended by participants from different

institutes across the country. The inaugural function was held on 16th June. Prof. Dheeraj Kumar, Deputy Director, IIT (ISM) Dhanbad graced the inaugural session with his presence, while **Prof. Sukumar Mishra**, Director, IIT (ISM) Dhanbad and **Prof. Suparna Kar Chowdhury**, Chairperson, IEEE Kolkata section, joined online. During the 5-day event, Prof. Anil Pahwa and Prof. Dushyant Sharma delivered lectures for 12 hours and tutorials for 2 hours, giving new insights into electric power distri-

bution systems. Prof. Anil Pahwa also conducted an interaction session with the faculty members and students of the department to discuss various collaboration opportunities. A site visit to an electrical sub-station was also arranged for the participants on the last day. The program was deeply appreciated by the participants. An examination was conducted on the last day, which every candidate passed, marking the program a success.



**Dr. Agha Asim Husain** who had been working for doctoral research under the supervision of **Prof. Tanmoy Maity** is awarded with Ph.D. degree in Electrical Engineering in the month of June 2025.

*Hearty Congratulations to him !*

### UPCOMING EVENTS

Executive Development Program (EDP) on “Electrical Safety and Precautionary Maintenance for Sustainable Mines” to be held during 28<sup>th</sup> July to 1<sup>st</sup> August 2025 at EDC, IIT(ISM) Dhanbad: CI- **Prof. Nitai Pal** and Co-CI- **Prof. P. K. Sadhu**.

🔗Link: <https://www.iitism.ac.in/seminar-1>

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