

Importance and scope

To brief knowledge about the optical sensor equipment.

Participants will be able to learn about the Electron Beam Cum Thermal Evaporation Systems: Training on Thermal and Electron gun position systems, 4-Channel optical interrogator system along with demonstration of sensitivity analysis of etched FBG, Spectrophotometer/Light Source/ Collimating light arrangement on coated Multimode fiber, Laser Optics and related Devices on Vibration free table for Angular interrogation Techniques, Dip coating machine for depositing of Graphene Oxide on sensing Head, Surface Plasmon Resonance (SPR) generation on coating etched FBG along with specialty fibers.

Topics to be covered

- ❖ Recent Advancement in Silicon photonics for microwave signal processing, RF links, and low-cost integration
- ❖ Optical frequency division and microcomb-based microwave synthesizers with record-low phase noise.
- ❖ RF-Over-Fiber (RoF) & 6G Applications
- ❖ Integration with LIDAR and high-resolution radar using photonics.
- ❖ Photonic Crystal Fiber Based Sensor
- ❖ THz photonic devices bridging mmWave and optical domains for communications and imaging.
- ❖ High Power microwave devices.

Software Demonstration.

Electronics and Environmental Area:

Ansys Multi-Physics Modelling Software, Opti-Grating, Opti-Fibre, Opti-Spice, , R-Soft Full wave software

About the institution

The Indian National Congress at its XVII Session of December 1901 passed a resolution stating that “in view of the fact that the tendency of recent legislation namely, The Indian Mines Act VII of 1901, is that all Indian mines must be kept under the supervision of mining experts, the Congress is of opinion that a Government College of Mining Engineering be established in some suitable place in India on the models of the Royal School of Mines in England, Mining Colleges of Japan and at other places in the continent”. The McPherson Committee formed by Govt. of India, recommended the establishment of an institution for imparting education in the fields of Mining and Geology, whose report, submitted in 1920, formed the main basis for establishment of the Indian School of Mines, Dhanbad.

The Indian School of Mines was formally opened on 9th December 1926, by Lord Irwin, the then Viceroy of India to address the need for trained manpower related to mining activities in the country with disciplines of Mining and Applied Geology. In 1967 it was granted the status of a deemed to be university under Section 3 of UGC Act, 1956. Since its establishment, IIT(ISM) has undergone considerable expansion of its activities, and presently it can be considered as a total technology education institute.

Accommodation

Accommodation will be provided on payment basis subject to availability.

Eligibility Criteria

Participants from R&D Organizations / Faculties, Research Scholars of Universities, Institute and AICTE approved engineering. colleges.

Registration

Participants from R&D Organizations / Faculties and Technical Universities Institutes of AICTE approved engineering colleges: **Rs. 100.** The payment in the form of account payee **Demand Draft** drawn in favour of "**Registrar, Indian Institute of Technology (ISM)**" payable at **SBI, ISM Campus Branch, Dhanbad** (Branch Code - 1641) or in the form of electronic payment:

A/C holder: Registrar, Indian Institute of Technology (ISM), Dhanbad **Bank Name:** Canara Bank Saraidhela Branch, Shree Shyam Bhawan Main Road, Dhanbad, Pin-828127, **Branch Code:** 0986, **A/C No.:**110261358281, **IFSC:** CNRB0000986

A duly filled registration form along with Demand Draft or e-payment slip should be sent to any of the coordinators on or before 15th April 2026 by COURIER /SPEED POST. Participation fees for B. Tech, M. Tech and PhD students is Rs.100. Scanned copy of the filled-in registration form should be sent by email. Certificates will be issued only after the completion of the program.

Venue

Executive Development Centre (EDC)
Indian Institute of Technology (ISM)
DHANBAD – 826004, JHARKHAND

Website

www.ismdhanbad.ac.in/ei@ismdhanbad.ac.in

Patron

Prof. Sukumar Mishra , Director.IIT(ISM),
Dhanbad

Chairman

Prof. Ravi Kumar Gangwar
Head of Department, Electronics Engg. IIT
(ISM) Dhanbad

Coordinator

Dr. Sanjeev Kumar Raghuwanshi
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**Three Days
Workshop**

**Workshop on Emerging Trends in
Microwave Photonics Technology**

Scheduled Date
15th to 17th April. 2026



ORGANIZED BY
**Department of Electronics
Engineering**

**Indian Institute of
Technology (ISM),
Dhanbad
Jharkhand, India**

Three Days Workshop

**Workshop on Emerging Trends in
Microwave Photonics Technology**

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REGISTRATION FORM

Name:
Designation:
Sex (M/F):
Organization:
Address:
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Phone/Fax:
Email:
Details of Bank Draft:
Amount Rs:
Draft No.: Dated
Issuing Bank:

Date: Signature

QR Scanner-

