

Faculty Development Programme
**Blockchain Technologies and the Future
of Decentralized Systems**

March 17- March 31, 2026



इलेक्ट्रॉनिक्स एवं
सूचना प्रौद्योगिकी मंत्रालय
MINISTRY OF
ELECTRONICS AND
INFORMATION TECHNOLOGY
सात्यमेव जयते

Jointly organized by Electronics and ICT Academies
Established by the Ministry of Electronics and Information Technology, Govt. of India

MNIT Jaipur



IIITDM Jabalpur



IIT Kanpur



IIT Roorkee



Objective (Electronics & ICT Academy-Phase II)

1. To conduct specialized FDPs for faculty/mentor training in line with the vision of MeitY by promoting emerging areas of technology and other high-priority areas that are pillars of both the "Make in India" and the "Digital India" programs.
2. To promote synergy and collaboration with industry, academia, universities and other institutions of learning, especially in emerging technology areas.
3. To support the National Policy on Electronics 2019 (NPE 2019) which envisions positioning India as a global hub for ESDM sector, including MeitY Schemes/policies such as Programme for Semiconductors and Display Fab Ecosystem; India AI; National Programme on AI, Production Linked Incentive Scheme for IT Hardware & Large-Scale Electronics Manufacturing; EMC; SPECS; Chips to System (C2S); etc.
4. To promote standardization of FDPs through Joint Faculty Development Programmes.
5. To support the vision of the National Education Policy (NEP 2020), which mandates that Indian educators go through at least 50 hours in professional development programmes per year.
6. To design, develop & deliver specialized FDPs on emerging technologies/ niche areas / specialized modules for specific research areas for Faculty in Higher Education Institutions (HEI), besides FDPs on multi-disciplinary areas connected with ICT tools and technologies and other digital hybrid domains, covering a wide spectrum of Engineering, and non-engineering colleges, polytechnics, ITIs, and PGT educators.

Joint -Principal Coordinator

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An intensive 40 Hours Training Programme in online mode is being organized for faculty and doctoral students of engineering and technological institutions. It is also open to working professionals from industry/organizations. The main theme of training program will be oriented around exploring the state of the art methods for Challenges in Indoor & Outdoor optical wireless communication.

Resource Persons

Experts from IITs, NITs, Industrial and Academia Experts

Programme Modules:

Module 1: Modular Architecture & Layer 2 Scaling, The End of the Monolith: Moving away from "one-chain-does-all" to modular stacks (e.g., Celestia for data, Ethereum for settlement). Rollup Ecosystems: Deep dive into Optimistic and ZK-Rollups; understanding sequencers and proof verification, App-Chains & Subnets: Designing custom, application-specific blockchains using frameworks like Avalanche Subnets or Cosmos SDK.

Module 2: Zero-Knowledge (ZK) & Privacy Engineering, The Privacy Layer: Implementing zk SNARKs and zk-STARKs for confidential transactions and identity, Programmable Privacy: Building "Private-by-Design" applications where users prove eligibility (e.g., age, solvency) without revealing raw data. ZkEVMS: How Zero-Knowledge proofs are enabling Ethereum to scale while maintaining total compatibility with existing code.

Module 3: Tokenomics & Real-World Assets (RWA) Institutional DeFi: Bringing trillions on-chain through the tokenization of Real Estate, Treasury Bills, and Private Equity. Oracle Networks: Integrating real-world data feeds via Chainlink and decentralized sensors (DePIN). Advanced Token Design: Designing sustainable economic models (ve-tokenomics) that align long-term incentives for users and protocols.

Module 4: Interference and Security Issues: Decentralized Governance & Future Systems DAO 2.0: Moving beyond simple "one-token-one-vote" to reputation-based and quadratic voting models. Decentralized Identity (DID): Implementing Soulbound Tokens (SBTs) and W3C standard Verifiable Credentials for a portable digital life. Interoperability Protocols: Using CCIP and IBC to move assets and data seamlessly across fragmented blockchain network

Registration Link: <https://forms.gle/bRo4ycZbofyQSeoS6>

Beneficiary Name -PDPM IIITDM Jabalpur

Bank Name - INDIAN BANK

A/C No. - 50018692852

IFSC Code - IDIB000M694

Last Date of Registration- 16th March 2026

Certification Fee: Academic (Faculty/Students): ₹ 500/-

Professionals / Industry / Others: ₹ 1500/-

Participants from the Rest of the World USD: **US\$ 60**

The fee covers course material and certification charges.

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