Organized by
Electronics & ICT Academy

MNIT Jaipur
http://www.mnit.ac.in/eict

Classroom Programme
on
Learn Engineering by Activity with Products (Hands-on Maker Skills)

20th – 24th July 2026

Faculty Development Programme
Electronics & ICT Academy under aegis of

Ministry of Electronics and Information Technology
Government of India

meity.gov.in/content/schemes-projects

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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 specialised FDPs on emerging technologies/ niche areas/ specialised 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.

An intensive 40-hour online Training Programme is being organized to provide hands-on training in electronics prototyping, embedded systems, digital fabrication, and robotics. Participants will design, assemble, program, and test a Line Follower Robot while gaining practical experience with microcontrollers, CAD software, oscilloscopes, and 3D printing. The programme strengthens faculty expertise in mentoring student projects and developing maker-space activities. Sessions will be held daily from 9:00 AM to 6:00 PM.

Resource Persons: Senior Faculty from IITs/NITs and Industry Experts

Programme Modules:

Module 1: Electronics Prototyping and Instrumentation: Identification and selection of electronic components, reading datasheets and circuit implementation, Breadboarding and soldering techniques, Hands-on use of multimeter, power supply, oscilloscope, and function generator, Circuit testing, debugging, and troubleshooting
Module 2: Embedded Systems and Smart Device Development: Microcontroller programming fundamentals, Interfacing sensors and actuators, Digital and analog input/output implementation, Embedded firmware development and debugging, Development of intelligent embedded prototypes
Module 3: CAD, Digital Fabrication, and Product Realization: Computer-Aided Design (CAD) for rapid prototyping, Design and fabrication of functional components, 3D printing workflow: design, slicing, and fabrication, Laser cutting and rapid manufacturing techniques, Assembly and integration of mechanical subsystems
Module 4: Robotics System Integration and Capstone Project: Electromechanical system integration, Design and Development of a Line-Follower Robot Sensor Integration, Motor control and sensor fusion, Testing, tuning, and performance optimization Competition-Based Learning and Evaluation Strategies Courseware Development, Micro-Teaching, Peer Review, and Assessment Techniques.

Programme Coordinators:

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Registration:
Registration is open to faculty, working professionals, industry persons, doctoral, postgraduate and graduate students from India and rest of the world.
Participants will be admitted on first-come first-served basis. Register online at– (http://online.mnit.ac.in/eict/)

Registration Fee:

Mode of programme	Academia (Faculty/Ph.D. scholar)	Others:
Classroom	Rs. 2500/-	Rs. 5000/-

(18% GST extra)

(A) Fee once paid will not be refunded back.
(B) The fee covers online participation in the programme, tutorial notes and examination, certification charges etc.
(C) The registration amount may be paid through online mode - NEFT / UPI / Cards / SWIFT, provided at the registration portal.
(D) Detailed schedule will be shared after receiving registration form.
→ For queries, **email us at** fdp.academy@mnit.ac.in

MNIT Jaipur, one of the oldest NITs, has a rich heritage of sixty years producing world class engineers, managers, architects and scientists. Ranked 43rd nationally in the NIRF ranking-2024 (Engineering), the institute offers learning opportunities for undergraduate, postgraduate students, and researchers in various domains. Having a lush green campus of over 317 acres within the heart of the pink city, close to Jaipur International Airport, the campus offers a safe and lively environment. A world class teaching infrastructure, state-of-art laboratories welcomes you at the campus. The institute has a vision to impart education of international standards and conduct research at the cutting edge of technology.