About Electronics & ICT Academy at PDPM IIITDM Jabalpur

The Ministry of Electronics and Information Technology (MeitY), Government of India has instituted Electronics and ICT Academies in the year 2015. In the second phase, the academy at PDPM IIITDM Jabalpur aims at scalable training programmes in niche areas of Electronics and ICT for the development of the required knowledge base, skills and tools to unleash the talent of the Indian population. In addition to the faculty development programmes (FDPs) on fundamental and advanced topics in electronics, information and communication technologies, the Academy conducts customized training programmes for students, corporate sectors and research promotion workshops in emerging areas. The Academy is identified by the MeitY as the central hub of activities on training, internships, research, and consultancy programmes.

About PDPM IIITDM Jabalpur

PDPM IIITDM Jabalpur was established in 2005 with a focus on education and research in IT-enabled Design and Manufacturing. Since its inception, PDPM IIITDM Jabalpur has been playing a vital role in producing quality human resources for contribution to India's mission of inclusive and sustainable growth. The Institute offers undergraduate, postgraduate and PhD programmes in Computer Science and Engineering, Electronics and Communication Engineering, Mechanical Engineering, Design and PhD programmes in Mathematics, Physics and Literature. Further, the Institute offers an undergraduate programme in Smart Manufacturing. Under IIIT act, the Institute has been declared as an Institute of National Importance. The Institute campus is developed on 250 acres of land close to Dumna Airport, Jabalpur. The Institute is 10 kms from the main railway station and 5.5 kms from Dumna Airport, Jabalpur.

Faculty Development Programme

Reconfigurable FPGA and Internet of Things

The course is designed to provide participants with in-depth knowledge of hardware implementation of digital systems using FPGA. It aims to equip educators and researchers with physical design challenges in FPGA, design translation, knowledge of CAD tools and to explore real-time applications in areas like data processing in cloud and IoT interfacing.

Who can attend: The Programme is open to faculty from all colleges, universities, and technical and professional institutes. Students, fresh graduates, researchers, and industry personnel working in allied disciplines can also attend.

Important Dates:

Last Date of Online Registration: April 18, 2025

FDP Dates: April 21- May 02, 2025

Coordinators:

Dr. Pushpa Raikwal, Electronics and Communication Discipline, PDPM IIITDM Jabalpur

Dr. Neelam Dayal, Computer Science and Engineering Discipline, PDPM IIITDM Jabalpur

Contact us:

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Faculty Development Programme

Reconfigurable FPGA and Internet of Things
April 21-May 02, 2025 (Online mode)

Electronics and ICT Academy, Phase II

An Initiative of
Ministry of Electronics and Information Technology,
Government of India

PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur
Dumna Airport Road, Jabalpur 482005

Faculty Development Programme
Reconfigurable FPGA and Internet of Things
April 21- May 02, 2025 (Online mode)

RESOURCE PERSONS

- Prof. Jawar Singh, IIT Patna
- Prof. Santosh Vishwakarma, IIT Indore
- Dr. Varun Bajaj, MANIT Bhopal
- Dr. Ambika Prasad Shah, IIT Jammu
- Dr. Balchand Nagar, NIT Patna
- Dr. Meena Panchore, NIT Patna
- Dr. Bhupendra Singh Reniwal, IIT Jodhpur
- Dr. Neelam Dayal, PDPM IIITDM Jabalpur
- Dr. Pushpa Raikwal, PDPM IIITDM Jabalpur

COURSE COORDINATORS

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Course Contents

- Introduction to FPGA/ASIC and its applications
- FPGA for SoC Prototyping
- Digital Hardware Design using FPGA and the role of HDL
- Register Transfer level Synthesis
- Physical Design-Issues & Challenges
- FPGA in IoT Applications
- Cloud integration with IoT
- FPGA and cloud sharing
- Security and Privacy in IoT
- Integration of IoT and FPGA
- Research Opportunities and future trends of IoT in FPGA

Hands-On Sessions

- HDL programming for hardware designing such as FPGA
- Implementation of HDL code on FPGA kit
- Hands-on sessions on FPGA and IoT Applications.
- Real-time debugging and observing internal signals in FPGA designs.
- Hardware-Software Co-design: Trade-offs, Demo using Spartan Board with Xilinx Vivado.
- To experience software / Hardware design process, verification and validation.
- Introduction to MICROWIND software & illustration of design techniques
- Layout and Post Layout simulation

Programme Features

- Hands-on experience of FPGA and cloud integration for real time applications.
- Opportunities to connect with experts in the field.
- Instructor-led rigorous hands-on sessions in Off-line mode.
- Certificate on successful completion with full access to the course material.

Registration Details

- Registration link – Please fill out registration using the following link: https://forms.gle/9qJuhkqp7fDyUrMy5
- Registration fee: 500 INR/- (For Online)
- Last Date for Registration: April 18, 2025

Online Payment Details

- **Internet banking**

Beneficiary Name	PDPMIIITDM Jabalpur
Bank Name	INDIAN BANK
A/C No.	50018692852
IFSC Code	IDIB000M694

- **UPI ID: iiitdmj@indianbk**