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. The Academy is identified by the MeitY as a hub of activities for capacity building through training, internships, research, and consultancy programmes in fundamental and advanced topics in electronics, information and communication technologies, the Academy conducts customized academic programmes for students, corporate sectors and researchers.

ABV-IIITM Gwalior

ABV-IIITM Gwalior is a premier institute incepted by MHRD, Government of India, in the year 1997 as a center of excellence in the field of Technology and Management. It is an institute of national importance declared by the Government of India. The institute offers undergraduate, postgraduate, and doctoral programs, fostering innovation and entrepreneurship among its students. With state-ofthe-art facilities, experienced faculty, and industry collaborations, ABV-IIITM Gwalior aims to produce leaders capable of addressing contemporary challenges in technology and management domains.

Faculty Development Programme

On

Advance Analog Circuits for Biomedical Applications

Enhance the knowledge and skills of the participants in various steps of Analog Circuits for Biomedical Applications. It will cover basic fundamentals on differential amplifier, current mirror, op-amp design, Comparator, DAC and SAR ADC Design followed by pre layout and post layout simulation. Certificate will be provided to the participants*.

Who can attend: Faculty from colleges, universities, and technical and professional institutes can attend. Students, fresh graduates, researchers, and industry personnel can also attend it. The participants will be technically benefited to develop the fundaments and advanced concepts of Analog Circuits.

Important Dates:

Last Date of Online Registration: 25/06/2026
FDP Dates: 01-07' July 2026

Coordinators:

Dr. Gaurav Kaushal, ABV-IIITM Gwalior

Dr. Dip Prakash Samajdar, IIITDM Jabalpur

Co-cordinators:

Prof. Manisha Pattanaik, ABV-IIITM Gwalior

Dr. Jatoth Deepak Naik, ABV-IIITM Gwalior

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Faculty Development Programme

On

Advance Analog Circuits for Biomedical Applications

Jointly Organized by
ABV-IIITM Gwalior

विश्वजीवनामृतं ज्ञानम्

and
Electronics and ICT Academy
IIITDM Jabalpur

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

Digital India
Power To Empower

CAS

Faculty Development Programme

On

Advance Analog Circuits for Biomedical Applications

Date: 01-07 July 2026 (online)

Resource Persons

- Prof. Hitesh Shrimali, IIT Mandi
- Prof. Santosh Vishvakarma, IIT Indore
- Dr. Shailesh Singh Chouhan, Luleå University of Technology Luleå Sweden
- Mr. M. Santosh Kumar, CEERI Pilani
- Dr. Hari Shankar Gupta, ISRO
- Dr. Sandeep Kumar, JNU New Delhi
- Dr. Somesh Kumar, ABV-IIITM Gwalior
- Dr. Jatoth Deepak Naik, ABV-IIITM Gwalior
- Dr. Alak Majumder, NIT Arunachal Pradesh
- Dr. Pankaj Pal, NIT Uttarakhand
- Dr. Dip Prakash Samajdar, IIITDM Jabalpur
- Dr. Gaurav Kaushal, ABV-IIITM Gwalior
- Dr. Sandeep Semwal, National Yang Ming Chiao Tung University, Taiwan

Coordinators

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ABV-IIITM Gwalior

Course Contents

- Fundamental of Differential Amplifier
- Current Mirrors
- Design and Analysis of Operational Amplifier (Op-Amps)
- Analysis of Sample and Hold Circuits, and Comparators
- Data converters
- Digital-to-Analog Converters (DAC), Successive Approximation Register (SAR) ADC
- Static Analysis, Dynamic Analysis, and Noise Analysis of Data converters
- On-chip Power Supply Noise
- High Bandwidth

Hands-On Sessions

• Design and simulation of Differential Amplifier

• Design and performance evaluation of Op-Amps

• Simulation and analysis of Sample and Hold Circuits, comparators and DAC

• Design and simulation of Successive Approximation Register (SAR) ADC

• Static performance analysis of data converters (INL, DNL, Offset Error, Gain Error)

• Dynamic performance analysis (SNR, SNDR, THD, ENOB) of ADCs/DACs

• Noise analysis in analog signal circuits

Programme Features

• Training in analog circuit design concepts

• In-depth theoretical and practical understanding of Differential Amplifiers, and Operational Amplifiers

• Hands-on experience in DAC, SAR ADC Design and analysis

• Practical exposure to simulation and verification using EDA tools (Cadence Virtuoso)

• Training in static, dynamic, and noise analysis of data converters and on-chip power supply noise

• Opportunities to interact with experts in analog signal VLSI design

• Certificate upon successful completion with access to course materials

Registration Details

- Registration link – Please fill out registration using the following link: https://forms.gle/LTw7sqdmQhEXvSZB9
- Registration fee: INR 500/-
- Last Date for Registration: 25/06/2026

Online Payment Details

- **Internet banking [Partner Institute]**

Beneficiary Name	ABVIIITM FDP ACCOUNT
Bank Name	Bank of India
A/C No.	945210110009380
IFSC Code	BKID0009462
TYPE	SAVINGS BANK

- **QR Code:**