

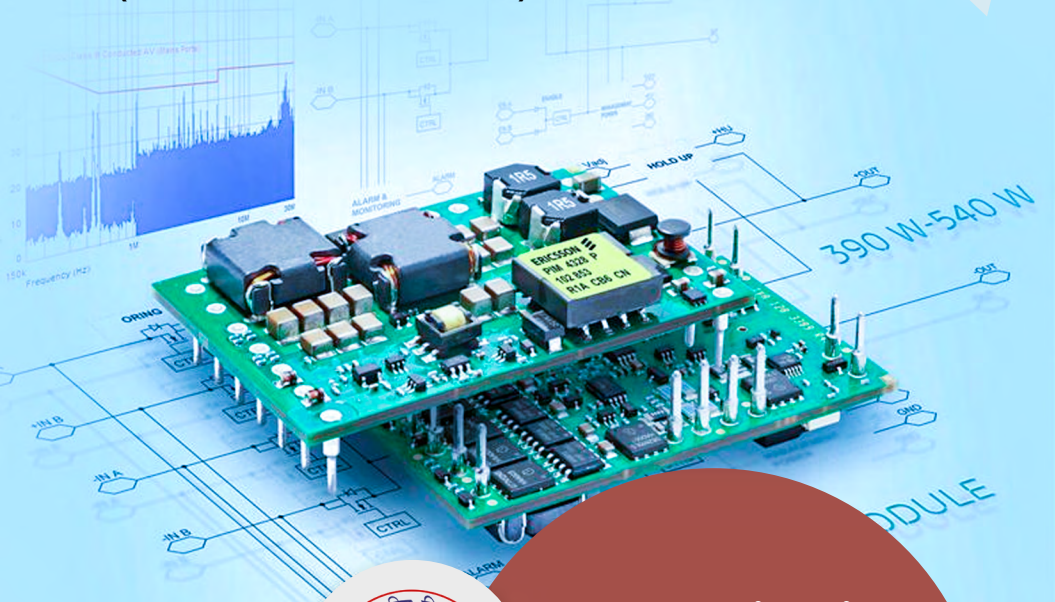
Department of Electrical Engineering

Five Days Faculty Development Programme (FDP)

on

Role of Advanced Digital Controllers in Power Electronics Converter Applications

(16/06/2025 to 20/06/2025)



**Central University
of Karnataka**

**Kalaburagi, Kadaganchi,
Karnataka-585367**

in Association with
**Pragna Micro Designs
Banguluru**

About CUK

The Central University of Karnataka, (CUK), is a central university situated in Kadaganchi village in the Aland taluka of Kalaburagi district in the Indian state of Karnataka. It was established by an Act of the Parliament of India in 2009, "The Central Universities Act, 2009".

About Department

The Department of Electrical Engineering was established in 2012 as a constituent of the School of Engineering of CUK. Currently, the Department offering undergraduate postgraduate in Power and Energy Systems and PhD Programs.

About FDP

Power electronics is revolutionizing modern industries, and the role of advanced digital controllers is critical in ensuring efficient, precise, and intelligent power conversion. This Faculty Development Program (FDP) aims to equip educators and researchers with the latest advancements in digital controllers used in power electronics applications. Participants will gain both theoretical insights and hands-on exposure to state-of-the-art digital control techniques.

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Objectives

- To understand the evolution and significance of digital controllers in power converters.
- To explore DSPs, FPGAs, microcontrollers, and AI-based controllers.
- To learn modern control techniques such as PID, Predictive, and AI-based control.
- To demonstrate real-time implementation in industrial applications.

Who Can Participate

Faculty Members from Engineering & Polytechnic Colleges **Rs. 500**

Research Scholars & Postgraduate Students **Rs. 300**

Industry Professionals & Enthusiasts in Power Electronics **Rs. 800**

How to Register

Register by Scanning registration QR Code or use registration link

Accommodation id provided based on request.

Registration Link:

<https://forms.gle/ddM8HewQMFdb8Mu27>

Topics to be covered

- Evolution of Digital Control in Power Electronics
- Digital Control Techniques for Power Converters.
- AI & Fuzzy logic control of Power Electronic Systems.
- Special Electrical Drives (BLDC, SRM and PMSM) control by using an FPGA Controller.
- Introduction and basic experimentation on the dSpace1104 controller.
- V/F Control of Induction Motor Using dSpace Microlab controller.

Organizing Committee

Partron

Prof. Battu Satyanarayana
Honorable Vice-Chancellor, CUK

Co-Partron

Prof. R. R, Biradar
Registrar, CUK

Dean

Prof. Paremasha
Dean, SOE, CUK

Convener

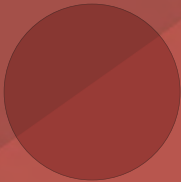
Prof. Amarendra Matsa
Head, EE, CUK

Co-ordinators

Dr. Uday Kumar Patil



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Contact Us

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Expert speakers
from reputed
universities,
R&D centers,
and industry
professionals
specializing in
power electronics
and digital control.

**Limited seats and
First come first serve based**