About us

Osmania University (OU) is a collegiate public state university located in Hyderabad, Telangana, India. Mir Osman Ali Khan, the 7th Nizam of Hyderabad, issued a firman calling for its creation on 29th August 1917.

University College of Engineering was established in the year 1929. The College was declared autonomous by the University in 1994 and by UGC in 2010. University's accreditation by NAAC with A+ grade and Category-I graded autonomy by UGC are applicable to the College. The institution has received ISO 9001:2015, 14001: 2015 and 50001: 2018 certification in 2023.

The **Department of Electrical Engineering** has started in 1949 to offer B.E in Electrical Engineering. Presently, the department is offering B.E. in Electrical & Electronics Engineering. Currently the department is offering three M.E. courses in Industrial Drives & Control (Introduced in 1971), Power Systems (Introduced in 1971) and Power Electronic Systems (Introduced in 2008). The Department also offers part time PG courses in Industrial Drives & Control and Power Systems (both were introduced in 1971) for the working academicians and engineers . BE and ME courses are accredited by NBA.

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Registration Fee Particulars
Faculty : Rs. 3500/-
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Participants need to pay registration fees online using the following details or by scanning the above QR code:
Name: **Head, Department of Electrical Engineering, UCE (A), OU**
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Registration Link
Participants are required to fill the online registration form by clicking on the following link (or copy and paste the link in browser) and attach proof of payment. Also participants need to send same details to WhatsApp number 9885538307.
https://forms.gle/tbtbTZHRMJvrrVtx9

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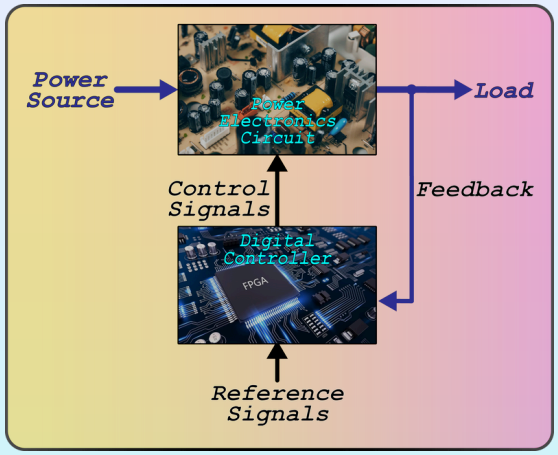
One Week Workshop on

Applications of Digital Control in Power Electronic Converters

08th to 13th July 2024



Organized by:
Department of Electrical Engineering
University College of Engineering (A)
Osmania University, Hyderabad, Telangana
As part of

Platinum Jubilee Celebrations 2023-24

Coordinators
Dr. E.Sreeshobha
Dr.R.Linga Swamy
Dr.P.Lokender Reddy

Head of the Dept.
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About the Workshop

Using Analog control, it is not possible to get quick control of power electronic converters. Modern power electronic converters needs high speed, flexibility and configurability of control, which is not possible using Analog control. The Digital control of power electronic converters have advantages over analog control. The Digital control of power electronic converters have advantages such as: 1) High control speeds in the range of Mega Hertz, 2)Implementing sophisticated control algorithms, 3) Flexibility to modify the control strategy without the need of modification in hardware, 4)Implementing current and voltage controllers for switching converters 5)Higher tolerance to signal noise and no ageing effect on the control strategy, 6) Taking care of nonlinearity of systems, 7) parameter variations by means of auto tuning strategies The applications of digital control of power electronic converters are in Adjustable speed drives, uninterruptable power supplies, power quality and so on.

This workshop aims at providing fundamental, advanced concepts and applications of digital control of power electronic converters using Programmable Processors such as Microcontrollers, Digital signal processors (DSPs) and Field programmable gate arrays (FPGAs). In addition to theoretical concepts, Laboratory sessions are also included in this workshop.

Topics to be covered in brief

- Digital control of AC and DC drives
- Fault tolerant AC drives
- Implementation of PWM for 2 level and 3 level Inverters using DSP
- Timer interrupts in DSP
- FPGA for Power Electronics
- FPGA based servo controller
- Digital control for grid connected Solar inverters
- Hardware-in- Loop for digital controller rapid development
- PWM for Multilevel Inverters
- PWM schemes and Inverter Topologies for multiphase machines

Key speakers

- Prof. V.T. Somasekhar, National Institute of Technology (NIT), Warangal
- Prof.K. Siva Kumar, Indian Institute of Technology (IIT), Hyderabad
- Mr. K. Sivamani Sudhakar,GM (R&D), Schneider Electric - UPS Business, Bangalore
- Dr.Rupesh Wandhare, Associate Professor, Indian Institute of Technology (IIT), Hyderabad
- Dr. B.Venugopal Reddy, Associate Professor,NIT, Warangal
- Prof. B.Mangu, Department of Electrical Engineering, UCE, OU
- Prof. P.Satish Kumar, Department of Electrical Engineering, UCE, OU
- Mr. Sreekanth, Scientist E, RCI, DRDO
- Mr. Manish Nalamwar, Scientist F, Head RF Stabilization division, RCI, DRDO
- P Srinivas, Scientist E, RCI, DRDO
- Dr. Nikhil Krishna Bajjuri, Senior Engineer – II, Microchip Technology India Pvt Ltd, Bangalore
- Dr. R.Linga Swamy, Assistant Professor, EED UCE, OU
- Mrs. U.Suryavalli, Assistant Professor, EED UCE, OU

Selection Criteria

Selection will be done based on first-come-first-serve basis. The list of selected participants will be intimated through e-mail.

Accomodation & Transport

The participants are required to make their own arrangements.

Important Dates

Online Registration start date : 10-06-2024
Last date for Registration : 30-06-2024
Duration : 08-07-2024 to 13-07-2024

Contact Us

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