INDIAN INSTITUTE OF TECHNOLOGY JAMMU

Department of Electrical Engineering

Organizes a 15-day Workshop on

Hands-on Training on the Design Implementation of converters for EV and Renewable Energy

SPONSERED by SERB under KARYASHALA scheme

Date: 4th March 2024 – 15th March 2024

The Indian Institute of Technology Jammu

IIT Jammu was inaugurated on 6th August 2016. In the initial phases, the establishment of IIT Jammu was done under the mentorship of IIT Delhi. The newly established breath taking campus at Jagti village is presently spread over 25 acres, with more than 1300 students studying various disciplines from the bachelor's to the doctoral level.

About the Department

Electrical Engineering is one of the largest departments in the institute in terms of number of faculty members, students enrolled (including UG, PG and PhD) and research funding in the form of external funded projects, thereby making rapid strides during the last few years in all spheres of education and research. Our undergraduate program has a flavors of both electrical and electronics domain which runs full fledged Master of Technology Program here at IIT Jammu in the field of Communications and Signal Processing. We have research expertise in the area of Communications, Signal Processing, Machine Learning , RF/Microwave, Power Engineering, VLSI and Micro-electronics.

About the Workshop

The **KARYASHALA** scheme, initiated by SERB, Govt. of India, is to enhance skill development training on emerging topics essential for scientific research. This workshop is specifically tailored for PG and Ph.D. students from universities and colleges seeking a comprehensive understanding of statistical method-ologies in the realm of ranking and selection. 'KARYASHALA' is an effort to improve research productivity of promising PG and PhD students from universities and colleges through high-end workshops on specific themes. This program aims to provide opportunities to acquire specialized research skills. These workshops will primarily be facilitated at organizations / institutions / laboratories of national importance such as IITs, IISc, IISERs, NITs, CSIR, ICAR, ICMR etc.

The workshop will cover a diverse range of topics, from fundamental concepts to specialized applications essential for advanced statistical modelling.

Learn, Engage, Invent, Create Impact !!

Outline of the Program

- Introductory Session
- Architecture & Operation
- Electric Vehicle - Demonstration
- Introduction- F28379D DSP Controller
- Designing Controller for EV using F28379D DSP controller.
- ePWM generation using F28379D DSP controller
- Design of driver circuits for power switches.
- Power Converter- Topology, Design & Demonstration
- Introduction to ADC & sensing using F28379D DSP Controller.
- Introduction to PCB Design.
- Design of a sample PCB.

Registration Guidelines
- There is no registration fee.
- Maximum number of participants is 30.
- Accommodation and Food will be provided to all the selected participants in the hostel.
- Travel will be reimbursed to outstation participants. Such participants are eligible for 3rd AC Train and Bus journey to and from IIT Jammu through the shortest route as per SERB & GoI norms.
- Travel reimbursement is for first 25 candidates based on first-come first-serve basis.
- A certificate regarding successful completion of workshop shall be issued to all the participants.

Coordinator:

Dr. Arun Kumar Verma
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Registration Link:
https://forms.gle/rrrMtPkzdvnkQsRk6

Important dates:
- **Online Registration: 10th January, 2024**
- **Last Date of Registration: 25th Feb. 2024**
- **Intimation of Participation: 26th Feb. 2024**

Volunteers:
- Akash Deo [2023ree1028@iitjammu.ac.in]
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Telegram group: https://t.me/+Dxb4d_i_B3M3YTA1