



**School of Electrical Engineering
Vellore Institute of Technology,
Vellore**

Presents

*a Two-day Workshop
on*

***Control Systems Design and
Hardware in Loop Testing***



Co-ordinators

**Dr. Vinodh Kumar E
Dr. Medarametla Praveenkumar
Dr. Sankardoss V**

School of Electrical Engineering
Vellore Institute of Technology,
Vellore-632014.

Date: 3-4 February 2023

ABOUT THE WORKSHOP

The primary aim of the workshop is to impart a broad exposure from modelling a physical system to implementing robust control algorithms for various fully and under-actuated systems. The major topics to be covered in the workshop include

- ✦ Frequency response modelling
- ✦ Full state feedback control
- ✦ Linear quadratic regulator design
- ✦ Cascade control
- ✦ Observer design
- ✦ PIV control
- ✦ Iterative learning control
- ✦ Hardware in loop (HIL) testing

The workshop is intended for students, faculty and industry personnel, who are interested in understanding the fundamentals of control system design and implementation through HIL testing. The hands on session will enable the participants to get a feel of how the control algorithms can be implemented using MATLAB/SIMULINK.

ABOUT VIT

VIT was established with the aim of providing quality higher education on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis. The campus has a cosmopolitan atmosphere with students from all corners of the globe. Experienced and learned teachers are strongly encouraged to nurture the students. The global standards set at VIT in the field of teaching and research spur us on in our relentless pursuit of excellence. In fact, it has become a way of life for us. The highly motivated youngsters on the campus are a constant source of pride. Our Memoranda of Understanding with various international universities are our major strength. They provide for an exchange of students and faculty and encourage joint research projects

for the mutual benefit of these universities. Many of our students, who pursue their research projects in foreign universities, bring high quality to their work and esteem to India and have done us proud. With steady steps, we continue our march forward.

***ABOUT THE SCHOOL OF ELECTRICAL
ENGINEERING***

The School of Electrical Engineering (SELECT) has over 98 faculty members who pursued their UG, PG and Doctoral degrees from top-notch universities. The school offers B.Tech. (Electrical and Electronics Engineering), B.Tech. (Electronics and Instrumentation Engineering), M.Tech. (Power Electronics and Drives), M. Tech. (Control and Automation), Ph.D and Integrated Ph.D in Engineering. Both B.Tech. and M.Tech. programmes attract the Intelligent students from the country and abroad. The B.Tech. Electrical and Electronics Engineering and B.Tech. Electronics and Instrumentation Engineering Programmes are accredited by the Engineering Accreditation Commission of ABET. All UG & PG programmes of the school are accredited by the Institution of Engineering and Technology (IET), U.K. The placement record of the school has always been impressive. Almost 100% of the students secure job from the campus placement and many of them are recruited in core companies. The School has state-of-the art laboratories in almost all the areas of Electrical, Electronics and Instrumentation Engineering. SELECT has industry sponsored advanced laboratories for performing world class research and consultancy. Danfoss Advance Drives Lab, Schneider Electric Smart Energy Monitoring Lab, Fluke Testing and Calibration Lab, Q-Max Automated Test Engineering Lab (Alumni Sponsored Lab) and NxP Semiconductors, India, have established Centre of Excellence for students R&D activities under the guidance of faculty members and industry experts.

Resource Persons

The lectures and hands-on sessions will be handled by faculty members from VIT and resource persons from Edutech India Private Limited.

REGISTRATION

Registration fee : Rs.750/-

* Registration fee includes 18% GST.

Prospective participants are requested to register for the workshop through the following web link

<https://events.vit.ac.in/>

Maximum 35 participants will be accommodated in the workshop. So preference will be given based on first come first serve basis.

IMPORTANT DATES

Last date for receipt of application: 25-01-2023
Intimation of acceptance : 01-02-2023

HOW TO APPLY

After registration, the participants are requested to send the acknowledgement receipt along with the duly filled in registration form to the email id: vinodhkumar.e@vit.ac.in

CONTACT DETAILS

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Dr. Sankardoss V
Mobile: 8825965509

Control Systems Design and Hardware in Loop Testing

3-4 February 2023

Registration form

Name :

Designation :

Affiliation :

Address :

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Email :

Gender: Male/ Female

Mobile :

Accommodation Required: Yes / No

Place:

Date :

Signature of the Applicant

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Dr. G. Viswanathan
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School of Electrical Engineering

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Dr. N. Ruban
HoD (Control & Automation)
School of Electrical Engineering

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