An Online Faculty Development Programme on Teaching and Learning of Advanced Control Systems

10th - 16th, August 2020

Call for Registration and Participation

Coordinators
Dr. R. Jeyasenthil
Dr. B. L Narasimharaju
Prof. M. Sailaja Kumari
(Member, TLC Core Team)

Organized by Department of Electrical Engineering in association with Teaching-Learning Centre National Institute of Technology Warangal – 506 004 Telangana state, India

How to Apply:
Eligible candidates may apply by submitting the scanned copy of the filled-in registration form (attached with this mail/ brochure) by Email to: controlnitw@gmail.com on or before 6th August 2020.

Selection and Intimation:
Upon receipt of the registration form, the applicants will be selected based on their teaching aspirations and research interest. The number of participants in the workshop is limited to 50. Candidates are advised to apply early to avoid disappointment. The selected applicants will be informed about his/her selection through Email on 08-08-2020.

Payment of Registration Fee:
After receiving the information about selection, the applicant has to send the required registration fees as per the details given in the Table on or before 06-08-2020. The mode of payment of registration fee is given under the heading “Bank Details”. The applicants have to pay the prescribed registration fees within two days after receipt of the intimation of selection. On receipt of the proof of payment of registration fee in the form of scanned copy of the Proof of remittance (with transaction number if online transaction), the applicants will be sent confirmation of their participation through Email immediately.

Registration fee:

<table>
<thead>
<tr>
<th>Category of Participants</th>
<th>Registration fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>Rs.750/-</td>
</tr>
<tr>
<td>Research Scholars</td>
<td>Rs.400/-</td>
</tr>
</tbody>
</table>

Note: Registration fee for Faculty and Students of SC/ST category is half of the amounts mentioned above as applicable.

Background:
Control System is an exciting, multidisciplinary field. It is not limited to any particular engineering discipline but is equally applicable to aeronautical, automobile, chemical, civil, mechanical, electrical engineering. It has taken its place as a core course in the many engineering curriculum. The ultimate objective of the control system is to implement controllers in real systems to meet the realistic system specifications; we might take an ad hoc approach relying only on intuition, trial and error experience when designing feedback control systems. This program focuses on physical system modeling and the systematic methods to design the advanced control system to meet desired requirements in both classical and modern settings.

Objectives of the Programme:
- To train and update the faculties and research scholars for effective teaching & learning with the state of art information on the control system design.
- To enhance the understanding of the advanced control system design methods.
- To introduce some of the best control design practices followed in the industries.
- To understand different control design methods and identify the suitable one for the problem statement.

Topics of the Programme:
- Fundamentals of Control System
- Advanced PID controller
- Modern Control Concepts
- Model Predictive Control
- State Estimation
- Fractional Order System
- Sliding Mode Control
- Robust Control: Loop Shaping Concept
- Robotics and its Control

Resource Persons:
Eminent faculty from IITs, NIT Warangal will deliver the lectures for the programme.

Registration is open to:
- Faculty members working in engineering institutions.
- Research Scholars aspiring for faculty positions.
**Bank Details:** Registration fee need to be remitted through **Online / NEFT** to the Bank Account given below.

<table>
<thead>
<tr>
<th>Account Name</th>
<th>DIRECTOR, RESEARCH, NIT W ARANGAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Number</td>
<td>62266 262236</td>
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<tr>
<td>Bank</td>
<td>State Bank of India</td>
</tr>
<tr>
<td>Branch</td>
<td>NIT Warangal</td>
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<tr>
<td>Branch Code</td>
<td>20149</td>
</tr>
<tr>
<td>IFSC code</td>
<td>SBIN0020149</td>
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</tbody>
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**Brief profile of the Department of Electrical Engineering:**

The Department of Electrical Engineering was established as one of the major departments of NITW, in the year 1959. The Department is actively engaged in teaching and research in diverse fields of Electrical Engineering. It offers B.Tech in Electrical & Electronics Engineering, M.Tech program in Power Electronics & Drives, Smart Electric Grid, Power Systems and Ph.D program. Broad areas of expertise of the department include Design and development of Smart Grid/ Microgrid systems, Control and integration of Renewable Energy Sources, State Estimation and Real Time Control of Power Systems, AI Applications in Power Systems, Power System Transients, Power Quality, Application of Power Electronics to Power Quality Improvement and Industrial Drives, DSP controlled Drives, Simulation of Power Electronic Converters and Drives Systems, Robust Control. The Department has strong Industry interaction and is involved in various Research & Consultancy projects in coordination with industry, Governments of India, Telangana & Andhra Pradesh. The department has an MOU with Central Power Research Institute (CPRI) to carry out collaborative projects.

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**About NIT Warangal:**

NIT Warangal, formerly known as Regional Engineering College was established in 1959. Over the years it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 14 Departments offering eight undergraduate and 32 post-graduate programmes besides doctoral programmes. About 5000 students across the country and about 500 international students study on the campus. It is a fully residential campus sprawling over 250 acres with excellent infrastructure in the form of state of the art library, seminar halls, guest houses and laboratories.

**Teaching-Learning Centre of NIT Warangal:** The Teaching-Learning Centre (TLC) is established at NIT Warangal with grants from the MHRD, GOI under the scheme, ‘Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching’ (PMMMNMTT). Many senior and young faculty members across various departments of the Institute are associated with this center as members of the Core-Team. One of the important objectives of the TLC center is to conduct training programs for aspiring, newly inducted and In-Service faculty in Science and Engineering disciplines. Other activities of the TLC include preparation of e-learning materials, offering courses on-line, curriculum development, carrying out research in pedagogy and integrating ICT into teaching-learning process.

For any queries regarding this training programme, please contact the Coordinators.

- Dr. R. Jeyasenthil, Assistant Professor, Mobile: 9360153302, Email: jey@nitw.ac.in
- Dr. B. L. Narasimharaju, Associate Professor, Mobile: 9448401052, Email: blnraju@nitw.ac.in
- Prof. M. Sailaja Kumari, Professor, Member, TLC Core Team
- Department of Electrical Engineering National Institute of Technology, Warangal Telangana State- 506004, India Email: sailaja@nitw.ac.in
- Prof. A. Ramachandraiah
  Coordinator, Teaching Learning Centre,
  NIT Warangal, E-mail: mtlc.nitw@nitw.ac.in
A Six-Day Online Faculty Development Programme on Teaching and Learning of Advanced Control Systems
10th - 16th August 2020

Organized by the Department of Electrical Engineering In Association with the Teaching Learning Centre of NIT Warangal Under the MHRD’s PMMMNMTT Scheme

REGISTRATION FORM

Name:__________________________________________________
Date of Birth:__________________________________________________
Place of Birth: Village/Town/City: _____________________ District: __________________
Tick as applicable (Rural / Urban):____________________ State: _____________________
Aadhaar number: ___________________________ Gender (Put a ✓ Mark) [M F]
Category (Tick as applicable) : Open / OBC / SC / ST / PWD
Qualification:__________________________________________________
Designation:__________________________________________________
Organization:__________________________________________________
No. of Years of Teaching Experience:_____________________________________________
Address for Correspondence:__________________________________________________
__________________________________________________
Mobile(s): _______________________ E-mail(s): _________________________________

Payment Details: Online Amount: _____________ UTR No.:____________________
Date: _________________ Bank: _____________________ Branch: _____________________

Declaration by the Applicant
If selected, I agree to abide by the rules and regulations of the workshop/ training programme and shall attend all the sessions.
** Kindly go through the brochure before making payment

Date: Signature of the Applicant

Recommended and Forwarded (Optional)

Office Seal Signature of the Head of the Department / Institution