

## THE INSTITUTE

National Institute of Technology Durgapur (NITD) is a leading technical institute offering undergraduate, postgraduate and doctoral programmes in various disciplines of engineering, technology, science, social science and management. NITD was established as a Regional Engineering College (REC) in 1960 as a joint venture of the Government of India and Government of West Bengal. REC Durgapur was converted to NIT Durgapur under the full administrative and financial control of the Ministry of Human Resource Development of Government of India with a Deemed University status on 3rd July, 2003. Subsequently NITD has been given the status of a University by the UGC Act. The Institute was declared an **Institute of National Importance** by the Government of India on August 15, 2007.

The city of Durgapur is recognized as one of the fastest developing Tier-II cities in the national scenarios. Durgapur is situated at a distance of about 180 KMs from Kolkata. It is located right on the major railway and expressway (NH-2) connecting Kolkata to Delhi and Durgapur can be reached from Kolkata (and vice versa) in ~ 2 hrs. 30 mins.

## THE DEPARTMENT

The Electrical Engineering course was initiated along with the Institution in 1960. Besides UG and PG courses, the Department also offers Ph.D. programme. The Department, over the years, has successfully completed a number of sponsored and consultancy projects. Theoretical and experimental investigations are being carried out in the areas like power systems, control systems, power electronics & machine drives, high voltage, instrumentation etc. The department regularly organizes invited lectures by experts from academic and R&D institutions as well as industries in various fields of Electrical Engineering. The Department is well equipped with highly sophisticated and modern laboratories.

## ABOUT THE WORKSHOP

The proposed workshop on “Advanced Control: Applied to Various Fields of Engineering (ACAVFE-2014)” will provide proper platform to the participants to acquire the knowledge of the recent research and development in the field of advanced control theory. It gives an exposure to the participants to get acquainted with the applications of control

theory in diverse fields of engineering. The applications' fields include power system, machine drives, power electronics, robotics and mechatronics, process control and instrumentation, aerospace especially flight control, missile guidance etc. This workshop will provide forum for academics and industrial professionals to exchange their knowledge of aforesaid area. The course contents will be taught by eminent experts in the field of advanced control theory. This workshop will offer a unique opportunity to the researchers, practicing engineers, academicians and students working in this area to acquire knowledge in current and relevant topics in control theory.

## TOPICS TO BE COVERED

The main focus of the course will be on the following topics:

- Control and Guidance of Aircraft and aerospace vehicles
- Periodic and Robust (H-infinity) Control
- Nonlinear Control
- Guidance & Navigation of Mobile Robots
- Process Control & Instrumentation
- Modeling & Control of Power Electronic Converters
- Advanced Control of Electrical Machines and Drives
- Application of Control theory in Power System
- Control System Design for Magnetic Levitation Systems-a Practical Approach

## RESOURCE PERSONS

The resource persons constitute of experts/faculty members from NIT Durgapur and guest speakers from other reputed institutions and industries including IIT, Jadavpur University (JU), Bengal Engineering & Science University (BESU), Shibpur, CMERI Durgapur etc. The external speakers are:

1. Prof. Tapan Kumar Ghoshal, Dept. of EE, JU
2. Prof. Sarit K. Das, Dept. of EE, IIT Kharagpur
3. Prof. G. D. Ray, Dept. of EE, IIT Kharagpur
4. Prof. Smita Sadhu, Dept. of EE, JU
5. Dr. Soumyajyoti Majumder, Chief Scientist, CSIR-CMERI, Durgapur
6. Dr. Arpita Mukherjee, Senior Scientist, CSIR-CMERI, Durgapur

## CALL FOR PAPERS

**In this workshop, there will also be a scope of paper presentation (not mandatory) among the participants of ACAVFE-2014 covering the theme of the course. No extra fee will be charged for paper presentation.**

Prospective authors are invited to submit their original technical papers for publication in the workshop proceedings and for oral presentation. All submissions should be in standard IEEE format with a maximum paper length of four (4) printed pages. Authors should send PDF files only for review **by E-mail to [acavfenitdgp@gmail.com](mailto:acavfenitdgp@gmail.com).**

Research papers are invited on (but not limited to) the following topics:

- Advanced Control theory
- Robust Control
- Nonlinear Control
- Intelligent and Adaptive Control
- Applications of control theory in power system and generation/FACTS
- Electronic Systems & Real Time Embedded Control
- Process Control
- Advanced Control in Machine Drives
- Mechatronics & Robotics

## WHO CAN ATTEND ACAVFE-2014

ACAVFE-2014 is aimed to attract and bring together Faculty Members, Scientists, Engineers, Technologists, Research Scholars and PG students from Academic and Research Institutions and Industries. The participants will get new insights and knowledge about the topic through close interactions/discussions with the Scientists and Experts of the respective field.

## BOARDING & LODGING

Boarding, lodging and travel expenses shall be borne by the participants. Limited shared accommodations may be available in the Institute Guest House on first come first served basis. Several good hotels are available in and around Durgapur. Participants may contact directly or through the coordinator(s) for accommodation in Hotels. No TA/DA will be paid to the participants by NIT Durgapur.

## REGISTRATION FORM

TEQIP-II Sponsored Workshop on  
Advanced Control Applied to Various Fields of  
Engineering (ACAVFE-2014)  
February 11-15, 2014

Dept. of Electrical Engineering, National Institute of  
Technology, Durgapur –713209,  
West Bengal, India

1. Name: \_\_\_\_\_
2. Designation & Affiliation: \_\_\_\_\_  
\_\_\_\_\_
3. Male/Female: \_\_\_\_\_
4. Mailing Address: \_\_\_\_\_  
\_\_\_\_\_
5. Mobile No. : \_\_\_\_\_
6. E-mail ID : \_\_\_\_\_
7. Registration fees: Demand Draft No. \_\_\_\_\_  
Date \_\_\_\_\_ Amount \_\_\_\_\_  
**(DD should be drawn in favour of “NIT  
Durgapur”, payable at Durgapur.)**
8. Vegetarian / Non-Vegetarian: \_\_\_\_\_

N.B.: Photocopy of this form may also be used for  
registration.

Place: \_\_\_\_\_ Signature of the Applicant  
Date: \_\_\_\_\_

Signature and Seal of the Head of the  
Department/Institute

## REGISTRATION FEES

Academic/ R&D Institution: Rs. 3,000/-

Industry: Rs. 6,000/-

Research Scholars: Rs. 3,000/-

Registration fee includes Seminar kit, study/lecture  
materials and proceedings, refreshment and lunch for 5  
days during the course.

## ORGANIZING COMMITTEE

Patron: Prof. T. Kumar, Director, NIT Durgapur

### Advisory Committee:

Prof. P. P. Gupta, Dean (R&C)  
Prof. K. C. Ghanta, Coordinator TEQIP-II  
Prof. B. Halder, Nodal Officer (Academic) TEQIP-II  
Prof. S. P. Ghoshal, EE Department, NIT Durgapur  
Prof. S. S. Thakur, EE Department, NIT Durgapur  
Prof. N. K. Roy, EE Department, NIT Durgapur  
Prof. S. Banerjee, EE Department, NIT Durgapur

### Chairman:

Prof. S. Ghosh, HOD, EE Department

### Workshop Coordinators:

Dr. Jayati Dey and Dr. Tapas Kumar Saha

Convener: Mr. Jitesh. Chandra Barman

### Members:

Dr. Sankar Narayan Mahato  
Dr. Parimal Acharjee  
Dr. Chiranjib Koley  
Mr. Partha Sarathi Bhowmik

Please send the completed application form together with  
demand draft to the Coordinator on or before 4<sup>th</sup>  
February, 2014. Also send the scanned copy of the said  
documents by E-mail to [acavfenitdgp@gmail.com](mailto:acavfenitdgp@gmail.com)

## CORRESPONDING ADDRESS

Dr. Jayati Dey/ Dr. Tapas Kumar Saha

Coordinator, ACAVFE-2014

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TEQIP-II Sponsored Workshop on

Advanced Control Applied to  
Various Fields of Engineering  
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Organized by

Department of Electrical Engineering  
National Institute of Technology Durgapur,  
Durgapur, W B-713209

### IMPORTANT DEADLINES:

Deadline of paper Submission (optional): January  
23, 2014

Paper Acceptance notification: January 30, 2014

Registration Deadline: February 04, 2014