KURUKSHETRA

Kurukshetra is described as DHARMA-KSHETRA, with historical and religious importance. Here, the battle of Mahabharata was fought, and Lord Shree Krishna preached the philosophy of "KARMA" as enshrined in the holy book "Shrimad Bhagwad Gita." It is one of the premier pilgrimage center attracting devotees all round the year. Kurukshetra is very well connected by Rail, Delhi-Ambala section, by Road (NH1, connecting Delhi-Chandigarh-Amritsar-Jammu) and by Air (Delhi 160 km and Chandigarh 80 km). The NIT Kurukshetra campus is situated about 10 km from Pipli, Bus stand located on NH1 and about 4 km from Kurukshetra railway station.

NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA

NIT Kurukshetra, formerly known as Regional Engineering College, Kurukshetra was founded in 1963. It was conferred upon the NIT status, with Deemed University on June 26, 2002. The Institute offers several courses, in various disciplines of B.Tech., M.Tech., MBA and MCA and Ph.D. with an annual intake of about 1500 students. Institute also provides excellent facilities for advanced research in the emerging areas of Engineering, Science, and Technology. The institute has well qualified and dedicated faculty along with supporting staff, laboratories and other infrastructure. The infrastructure is geared to enable the institute to produce technical personnel of high quality.

ELECTRICAL ENGINEERING DEPARTMENT (EED), NITK

The department offers B.Tech, M.Tech and Ph.D. Degrees. The B.Tech. course in Electrical Engineering provides is run with a number of electives, which enables the students to specialize in one of the fields i.e. Power Apparatus and Systems; Electronics and Instrumentation; Computer Applications; Information and Control. Presently, the department has three post graduate programs, M.Tech., in Control Systems; Power Systems; Power Electronics and Drives and offers Ph.D. in different areas to keep synergy with the evolving innovations and developments in all disciplines of Electrical Engineering. Out of 30 faculty members, the control system group has about 10 faculty members. Recently an Advanced control Systems Lab with modern equipments has been established.

RESOURCE PERSONS

Faculty members from NIT Kurukshetra/IIT. Also, experts may be invited from Industry/ R & D Organizations.

COURSE COORDINATORS

Dr. Bhanu Pratap,
Dr. M. P. R. Prasad,
Prof. A. Swarup

IMPORTANT DATES

Last date of Registration: **June 25, 2019**
Notification of Selection: **June 28, 2019**

CORRESPONDANCE

Address: ACTE-2019,
Electrical Engineering Department, NIT Kurukshetra – 136119, Haryana, India

Email: stcacte2019@gmail.com

Phones:
09468034271, 09729662574, 09416266610

TEQIP-III Sponsored
Short Term Course
On

Advanced Control Techniques & Experiments

(ACTE-2019)

July 08-13, 2019

Organized by

Department of Electrical Engineering,
National Institute of Technology
Kurukshetra
Kurukshetra-136119, Haryana, India

REGISTRATION FORM

TEQIP-III Sponsored Short Term Course on Advanced Control Techniques & Experiments (ACTE-2019) July, 8-13, 2019

Name: _____

Title (Dr./Mr./Mrs./Ms.):_____

Sex (M/F): _____

Date of Birth: (dd/mm/yyyy) _____

Designation: _____

Organization: _____

Address for correspondence: _____

_____

_____

Phone: _____

E-mail: _____

Qualification: _____

Category of Registration: _____

Accommodation required*: Yes / No

Payment details:

Draft/Online Details_____

Date: _____

Issuing Bank: _____ Amount: _____

Signature of applicant (with date)

Sponsoring Authority:

Name: _____

Organization: _____

Recommended: _____

(Signature of Head of the Department / Section / School / Institute with Seal)

COURSE OBJECTIVES

Control Techniques are very important in space vehicle systems, missile guidance systems, robotic systems, Electrical and Electronics Engineering. Also, control has become an important and integral part of modern manufacturing and industrial processes. As the world becomes more and more technology driven, large numbers of increasingly complex systems continue to emerge. It is imperative that these systems deliver the desired output even in uncertain environments. The need to control and monitor such complex, uncertain systems is imperative. The main thrust of this course is to present an exposure on controller design and its real-time implementation. The applications of various Advanced Control Techniques on real-time hardware set up will be shown. The aim of proposed course is to introduce the fundamentals of modelling, stability analysis and controller design. Further, various advanced control techniques for stability analysis and controller design will be discussed. Finally, real-time applications of these techniques on hardware set up will be demonstrated. This course will be helpful to post graduate students, research scholars, and faculty members. It is an interdisciplinary course; participants from the following background such as Electrical, Electronics, Instrumentation, Mechanical, and Chemical Engineering are encouraged to attend. Participants from the areas of Mathematics and Physics may also attend this course.

COURSE CONTENTS

The course aims to address the following issues related to the Advanced Control Systems, but not limited to them.

1. Introduction to the Advanced Control Methods
2. Modelling of Analysis of Physical Systems
3. Cyber Physical Systems
4. Multi-Agent Systems
5. Model Predictive Control
6. Robust Control & its Applications
7. Nonlinear system & Control
8. Aero-dynamical Systems & its control
9. Marine Robotic Vehicles & its Control
10. Special Lab sessions to demonstrate Computer-Aided Control of various Systems using MATLAB Real-Time tools.

WHO SHOULD ATTEND?

Faculty members/ research scholars/ students from academic institutes approved by the AICTE/ UGC/ MHRD and Scientists/ Engineers working in Private/ Public/ Govt. organizations/ industries etc. can attend the course. The application should be made on the registration form and should accompany registration fee as below:

Participant's category	Registration fee* (in Indian Rupees)
PG Students/ Research Scholars	1200/-
Faculty	3000/-
Industry/ R & D Organization	6000/-

* **Registration fee is non-refundable. Participants must have valid ID proof of student/ employee from associated organization.**

Participants will be provided meals and tea during the sessions. However, limited accommodation is available in the hostel/ guest house. The accommodation can be arranged on the request of the participants on payment basis, separately. No TA/ DA will be paid to the participants. Participants will be selected on first-come-first served basis. The registration form, complete in all respects, duly forwarded by the Head of the Department/ School/ Institute, accompanied by Demand Draft/ Online details of the requisite amount should reach on or before **June 25, 2019**. Registration fee is to be paid in advance through a bank demand draft in favor of "**Director, NIT Kurukshetra"** payable at **SBI, NIT Kurukshetra** or online through **SBI Collect.** The brochure with registration form can be downloaded from Institute website **www.nitkkr.ac.in**. The hard copy of the completed application forms should be sent at the correspondence address and the soft copy to the e-mail address **stcacte2019@gmail.com**.

REGISTRATION FORM
TEQIP-III Sponsored Short Term Course on
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July 8-13, 2019

Name : _____

Title (Dr./Mr./Mrs./Ms.) : _____

Sex (M/F) : _____

Date of Birth (dd/mm/yyyy) : _____

Designation : _____

Organization : _____

Address for correspondence : _____

_____

Phone : _____

E-mail : _____

Qualification : _____

Category of Registration : _____

Accommodation required (Y/N) : _____
(if Y give the arrival &departure date & time, for arrangements) **[Twin sharing Hostel accommodation]**

Payment details

Draft/Online Details : _____

Date : _____

Issuing Bank : _____

Amount : _____

Signature of applicant (with date) : _____

Sponsoring Authority

Name : _____

Organization : _____

Recommended : _____

(Signature of Head of the Department / Section / School / Institute with Seal)