ADVANCED LEVEL WORKSHOP
ON
"COMPUTATIONAL METHODS FOR CONTROL PROBLEMS"
March 16-21, 2015

Jointly organized by
Indian Institute of Space Science and Technology, Trivandrum
and
Mar Ivanios College, Trivandrum (Autonomous)

Supported by
NATIONAL PROGRAMME ON DIFFERENTIAL EQUATIONS: THEORY, COMPUTATION AND APPLICATIONS
NPDE-TCA (Sponsored by DST)

Venue
Department of Mathematics,
MAR IVANIOS COLLEGE TRIVANDRUM (AUTONOMOUS)

AIM :

- to expose young researchers to different computational aspects of control problems.
- to focus on recent developments in the computational algorithms which are used for control problems.
- to provide a common platform for exchanging of ideas and results pertaining to the challenges in this area as well as some related areas.
- to expose to hands-on-computation through computational Lab Sessions.

TOPICS :
Computational algorithms for steering controls in the controllability problems, initial states for observability problems, optimal controls using regularization techniques. Finite element methods for numerical approximations of steering controls in partial differential equations. Introduction to computational geometric mechanics. Parameterization of inputs and states of linear dynamical systems. Control problems governed by fractional differential equations.

PARTICIPANTS :
Ph. D. students, young researchers those are working on control problems in different Universities/ Institutions and R & D organization. In addition to that M. Tech students who plan to pursue a career in this area, some bright B.E or B. Tech. and M. Sc (Mathematics) students are also encouraged to participate.

RESOURCE PERSONS :
Amiya Kumar Pani, Neela Nataraj (IIT Bombay); Raju. K. George, Harsha Simha M.S., Priyadarshnam, Sarvesh Kumar. (IIST Trivandrum); Mohan C. Joshi (IIT Gandhinagar); A. K. Nandakumaran (IISc Bangalore); Mythily Ramaswamy (TIFR Bangalore); K. Balachandran (Bharathiar University, Coimbatore), N. Sukavanam (IIT Roorkee); Anil Kumar, P. Dhanumjaya (BITS-Goa)

COORDINATORS :
Sarvesh Kumar (Coordinator), Department of Mathematics, IIST, Trivandrum, Kerala.
Mary George (Co-coordinator), Department of Mathematics, Mar Ivanios College, Trivandrum, Kerala.

ORGANIZING COMMITTEE :
Amiya K. Pani, Neela Nataraj (IIT Bombay); Raju K. George, Sarvesh Kumar, C.V. Anil Kumar (IIST Trivandrum); Mary George (Mar Ivanios College, Trivandrum)

TRAVEL, BOARDING AND LODGING :
The participants will be provided lodging and boarding facilities, if asked. Selected candidates will be provided A/C three tier fare.

REGISTRATION FEE :
The Registration fee is Rs. l000/- which cover the workshop kit and working lunch. The Registration fee should be paid by a demand draft from any nationalized bank in favor of “Principal, Mar Ivanios College, Trivandrum” payable at Thiruvananthapuram.

PARTICIPATION :
For more details and registration form kindly see: http://www.npde-tca.math.iitb.ac.in/

APPLICATION PROCEDURE :
The application should be supported by their curriculum vitae. Research students should request their research supervisor/head of the department to send a letter of recommendation by post/email. The duly filled Registration form along with the Registration fee should be sent by post to:
Dr. Sarvesh Kumar, Assistant Professor, Department of Mathematics, Indian Institute of Space Science and Technology (IIST), Valiamala P.O., Thiruvananthapuram - 695 547, Kerala.

OR

Applicants may also submit a scanned copy of a duly filled signed registration form and demand draft to rajputsarvesh@gmail.com or sarvesh@iist.ac.in

The last date of receiving application submission is **18th Feb-2015**. The shortlisted candidate will be informed by e-mail latest by **20th Feb-2015.**

CONTACTS:
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