INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

NATIONAL PROGRAMME ON DIFFERENTIAL EQUATIONS
THEORY, COMPUTATION & APPLICATION
NPDE-TCA-2015
(Sponsored by DST)

Announcement of

ADVANCED LEVEL WORKSHOP on Controllability of Heat and Wave equations
AT
INDIAN INSTITUTE OF TECHNOLOGY MANDI
November 16 - 20, 2015

IIT Mandi is organizing an *Advanced Level Workshop on Controllability of Heat and Wave equations* during 16th -20th Nov. 2015 under National Programme on Differential Equations: Theory, Computation & Applications (NPDE-TCA).

AIM:
- To expose young researchers to the theory and numerical aspects of controllability for Heat and wave equations.
- To focus on recent developments in the theory and computation for the controllability of Heat and Wave equations.
- To provide a common platform for exchanging of ideas and results pertaining to the challenges in this area as well as some related areas.

TARGET AUDIENCE:
Ph.D. Students, Young Researchers, Post-doctoral Fellow and Young Faculties.

MAIN TOPICS:
Parabolic and Hyperbolic partial differential equations, Concept of controllability (Exact controllability, Approximate controllability, Null controllability, Trajectory controllability etc.) for Finite dimensional control system as well as for the Infinite dimensional control Systems governed by the Heat equations and Wave equations. Semigroups of linear operators and its application to the Heat and Wave equations, Observability and controllability, Stabilizability, Carleman estimate for the Heat Operator, Null Controllability for the Heat equations, Boundary control system, Numerical method for steering controls in the controllability problems.

RESOURCE PERSONS:
Amiya Kumar Pani (IIT Bombay); Raju. K. George (IIST); N. Sukavanam (IIT Roorkee); Sheetal Dharmatti (IISER,Trivandrum); A. K. Nandakumaran (IISc); D. Bahuguna (IIT Kanpur)

COORDINATORS:
1. Muslim Malik, School of Basic Sciences, IIT Mandi, Himachal Pradesh, India.
2. A. K. Nandakumaran, Department of Mathematics, IISc Bangalore, India.

LOCAL ORGANIZING COMMITTEE:
Muslim Malik, Syed Abbas, Rajendra Ray, Manoj Thakur, Pratibha Garg, Sarita Azad and Nitu Kumari.

REGISTRATION:
A fee of Rs 1000/- will be charged from all participants to cover the program kit and working lunch.
Draft should be sent in the name of **Indian Institute of Technology Mandi, H, P.** and **Payable at SBI Branch Kamand IIT Mandi.**
To participate in the workshop fill in the required online form available on the site:
http://www.npde-tca.math.iitb.ac.in/ by September 20, 2015.
CONTACT:
1. Dr. Muslim Malik, IIT Mandi, H. P. India, Contact details : muslim@iitmandi.ac.in / 8627979526
2. A. K. Nandakumaran, Department of Mathematics, IISc Bangalore, India.
Last Date of receipt of application: 20th September, 2015
Selection of participants will be based of their academic records and recommendation letters.
List of selected participants will be put on the web page by 25th September, 2015.