NATIONAL PROGRAMME ON DIFFERENTIAL EQUATIONS:

THEORY, COMPUTATION & APPLICATION
NPDE-TCA-2015
(Sponsored by DST)
Announcement of
Advanced Workshop on Homogenization and Control: Theory & Application
(AWHCTA-2016)
at
Indian Institute of Technology, Kanpur (February 27- March 03, 2016)

IIT Kanpur will be hosting an advanced workshop on Homogenization and Control: Theory & Application during February 27- March 03, 2016.

AIM:
The objective of the workshop is to introduce both formal and rigorous averaging methods to physical systems modelled by partial differential equations (PDEs) posed in heterogeneous/perforated media. The audience will be introduced to the tool of mathematical homogenization applied to PDEs describing physico-chemical processes in media with microstructures. The controllability aspects of PDEs will also be introduced.

TARGET AUDIENCE:
Post-graduate students and researchers from various institutes, universities and research organizations across the country.

MAIN TOPICS:
Periodic composite materials, Asymptotic Expansions, Compensated compactness, Two-scale convergence, G-Convergence and H-Convergence, Gamma convergence, convergence of energy and correctors, Bloch wave homogenization, Method of unfolding, Optimal controls and Controllability.

RESOURCE PERSONS:
S. Kesavan (IMSc.); T. Muthukumar (IITK); A. K. Nandakumaran (IISc); B. V. Rathish Kumar (IITK); N. Sabu (IIST); Sivaji S. Ganesh (IIT Bombay); N. Sabu (IIST, Trivandrum); M. Vanninathan (TIFR-CAM).

COORDINATORS: T. Muthukumar and B. V. Rathish Kumar

LOCAL ORGANIZING COMMITTEE: Akash Anand, D. Bahuguna, S. Ghorai, Kaushik Bal, Malay Banerjee, Pravir Dutt, Prawal Sinha, R.K.S.Rathore.

APPLICATION PROCEDURE:
The registration form is available for download at: http://www.npde-tca.math.iitb.ac.in. Duly filled-in application should be sent by email to: awhcta.wrkshp@gmail.com along with your updated CV (mention NPDE events you may have participated in). Also, arrange to send at least one recommendation letter from your supervisor/teacher in support of your application directly to the e-mail mentioned above. Hard copy applications will also be accepted by post on the address given below. Selected participants will be provided TA, lodging and boarding facilities, as per the rules.

CONTACT INFORMATION:
T. Muthukumar / B.V. R. Kumar (Coordinators), Advanced Workshop on HCTA, Department of Mathematics & Statistics, IIT Kanpur, Kanpur – 208016, UP, India, Email : awhcta.wrkshp@gmail.com, Phone: 0091-512-259 7911/7660/7636, Fax : 0091-512-259 7500 (Office)

*Last Date of receipt of application: **25 January 2016***
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 27 January 2016