



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**  
**NATIONAL PROGRAMME ON DIFFERENTIAL EQUATIONS, THEORY,**  
**COMPUTATION & APPLICATION**  
**NPDE-TCA-2016**  
**(Sponsored by DST)**  
**Announcement of**  
**ADVANCED LEVEL WORKSHOP ON**  
**“Diffusion and Sub-Diffusion Problems: Theory Numerics & Applications”**

**AT**

**The Department of Mathematics, LNM Institute of Information Technology,**  
**Jaipur-302031**

**January 31- February 05, 2017**

The Department of Mathematics, LNM Institute of Information Technology, Jaipur is organizing an “Advanced Level Workshop on Diffusion and Sub-diffusion Problems: Theory, Numerics and Applications” under the aegis of National Programme on Differential Equations: Theory, Computation & Applications (NPDE-TCA) during January 31- February 05, 2017.

**AIM:**

Diffusion and Sub-diffusion problems arise in the mathematical modeling of time-dependent phenomena in nature and society and, thus, have numerous applications in the sciences, engineering, economics, and other fields. The goal of the workshop is to bring together experts as well as researchers who are interested in Diffusion and Sub-Diffusion problems from different perspectives, including theory, numerical analysis and applications. The main objectives of the workshop are as follows:

1. To give systematically exposure to young researchers/scholars of the fundamental concepts of Theory and Numerics of Diffusion and Sub-Diffusion problems.
2. To provide a common platform for exchanging of ideas and results pertaining to the challenges in this area and for possible future collaborations.

**TARGET AUDIENCE:**

Research Scholars, Post-Doctoral Fellows, Young Faculty Members and other interested participants (Preferably with adequate knowledge of PDEs/Numerical Methods) from universities, institutions and R&D Organizations.

**MAIN TOPICS:**

Review weak solution to Parabolic PDE: existence, uniqueness, Maximum principle etc., Semi-group theory and applications, Fractional-diffusion problems: existence and uniqueness, and regularity theory, Finite element analysis of evolution equations.

**RESOURCE PERSONS:**

V. Raghvendra (IIT Tirupati), A.K. Pani (IIT Bombay), A.S. Vasudevurthy (TIFR-CAM Bangalore), M.K. Kadalbajoo (LNMIIT Jaipur), Dhiren Bahuguna (IIT Kanpur), Rajen K. Sinha (IIT Guwahati).

**LOCAL COORDINATORS**

Ajit Patel, Vikas Gupta (LNMIIT Jaipur)

**LOCAL ORGANIZING COMMITTEE:**

Ajit Patel, Vikas Gupta, Pratibha Garg, M.K. Kadalbajoo, Manish Garg, Dharendra Mishra, Sunil Gauttam, Somnath Maiti

**PARTICIPATION:**

To participate in the workshop, fill in the required form which can be available on the website: <http://www.npde-tca.math.iitb.ac.in/DSDPTNA16/dsdptna2016.php> and request your Referees to send us your recommendation letter along with your application ID to this email [npde.atmp@gmail.com](mailto:npde.atmp@gmail.com). Selected participants will be provided TA, lodging and boarding facilities as per the rules.

**CONTACT:**

Amiya K Pani, Convener, NPDE-TCA, Department of Mathematics, Industrial Mathematics Group, IIT Bombay, Powai, Mumbai - 400 076. Email: [npde.atmp@gmail.com](mailto:npde.atmp@gmail.com), Phone: 022-2576 4765

**LOCAL CONTACT:**

Vikas Gupta, Department of Mathematics, The LNM Institute of Information Technology, Jaipur-302031. Email: [vikasg@lnmiit.ac.in](mailto:vikasg@lnmiit.ac.in), Phone: +91-141-5191797, +91-7597252464

**Important Dead Lines**

Last date for applying/ submission of application: **15th January, 2017 till 5:00 PM**  
Announcement of selected participants in the website: **16th January, 2017**