

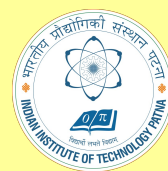


# INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

## NATIONAL PROGRAMME ON DIFFERENTIAL EQUATIONS : THEORY, COMPUTATION & APPLICATIONS

NPDE-TCA - 2013

(Sponsored by DST)



### Announcement of

## Advanced Workshop on Mathematical Epidemiology and Differential Equations (AWMEDE-2013)

AT

## INDIAN INSTITUTE OF TECHNOLOGY PATNA

July 8-13, 2013

Indian Institute of Technology, Patna is organizing an *Advanced Workshop on Mathematical Epidemiology and Differential Equations* during July 8-13, 2013 under auspices of National Programme on Differential Equations: Theory, Computation & Applications (NPDE-TCA).

### AIM:

Epidemiology is the science that deals with the incidence, distribution, and control of disease in a population. Mathematical models have been developed to draw meaningful conclusions which help in understanding the spread of a disease and also in suggesting measures for control of a disease. Epidemic mathematical models are formulated in terms of nonlinear systems of differential equations and require variety of concepts and techniques to analyze them. The aim of the workshop is to provide participants an overview of mathematical techniques in ordinary, delay and partial differential equations that allow one to address the challenges in epidemiological modeling. There will also be opportunity for the participants to interact with the resource persons in these areas.

### TARGET AUDIENCE:

Research Scholars, Post Doctoral Fellows and Young Faculty Members with a background in mathematical Biology / Epidemiology working in Indian Universities / Institutes, and other R&D Organizations.

### MAIN TOPICS:

Mathematical modeling, stability and bifurcation analysis, time delays in epidemic models, numerical simulation, optimal control, case studies in epidemiology.

### RESOURCE PERSONS:

M. Banerjee (IITK), P. Chandra (IITK), Pradeep Das (RMRIMS), B. Dubey (BITS), Anuj Mubayi (NEIU, USA), A. K. Misra (BHU), Amiya K. Pani (IITB), V. Raghavendra (IITK), A. S. Rao (GRU, USA/ ISIKol), P. K. Srivastava (IITP).

### COORDINATORS:

P. K. Srivastava (IIT Patna), Peeyush Chandra (IIT Kanpur)

### PARTICIPATION:

To participate in the workshop, fill in the required form which can be downloaded from the website: <http://www.math.iitb.ac.in/~npde-tca/> and email to: [awmede2013@iitp.ac.in](mailto:awmede2013@iitp.ac.in). Also send the signed form by post together with your CV and recommendation letter(s) from your supervisor / HOD to the following contact address.

### CONTACT:

Dr P. K. Srivastava, Department of Mathematics, IIT Patna- 800013, Bihar, India,  
Email: [awmede2013@iitp.ac.in](mailto:awmede2013@iitp.ac.in), Phone: +91-612-255-2033.

*Last Date of receipt of application: May 3<sup>rd</sup>, 2013*

*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 May 6<sup>th</sup>, 2013.*