



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY



NATIONAL PROGRAMME ON DIFFERENTIAL EQUATIONS; THEORY, COMPUTATION & APPLICATIONS NPDE-TCA 2013

(Sponsored by DST)

POSTGRADUATE LEVEL TRAINING PROGRAMME ON DIFFERENTIAL EQUATIONS

Venue:
INDIAN INSTITUTE OF TECHNOLOGY MADRAS
20th May to 8th June, 2013

IIT Bombay in collaboration with IIT Madras is pleased to announce a 3 week Postgraduate Training Programme under the auspices of NPDE-TCA at IIT Madras during 20th May to 8th June, 2013.

OBJECTIVES :

- To generate manpower to pursue higher studies in Applied and Computational Mathematics.
- To provide linkage between theory and practice through real life problems.
- To expose participants to high end mathematical software like MATLAB in Scientific Lab sessions with hands in computing.
- To prepare manpower to support scientific organizations and industry by providing appropriate training.

TARGET AUDIENCE :

Graduate students (M.Sc (2nd year) in Mathematics), Young teachers in Mathematics of institutes, universities and colleges, and scientists from Industry and Research & Development Organizations. Few exceptional students from B.Tech / B.E (final year) and first year M.Sc (Math) who are likely to pursue their career in Applied and Computational Mathematics are also encouraged to apply.

MAIN TOPICS :

Multi-variable Calculus, Analysis (elements of measure theory, L^2 space); Basic elements of Functional Analysis; Ordinary Differential Equations (existence theory and stability results); Partial Differential Equations (First order linear and nonlinear hyperbolic PDEs, Second order linear elliptic and parabolic PDEs (Green's function with properties, maximum principle etc.), wave equations (d'Alembert formula, reflection principle etc.)); Mathematical Modeling (basics of modeling with examples from real industrial problems); Numerical Linear Algebra and Finite Difference Methods for PDEs with hands on computing (iterative methods, stability, consistency and convergence of numerical schemes for PDEs).

RESOURCE PERSONS:

Adimurthi (TIFR-CAM Bangalore); S. Kesavan (IMS, Chennai); M.T. Nair (IIT Madras); Amiya K Pani (IIT Bombay); Raghavendra (IIT Kanpur); Y.V.S.S. Sanyasiraju (IIT Madras); A.J. Shaiju (IIT Madras); S. Sivaji Ganesh (IIT Bombay); Ch. Srinivasa Rao (IIT Madras); S. Sundar (IIT Madras); B V Rathish Kumar (IIT Kanpur); A.S. Vasudeva Murthy (TIFR-CAM Bangalore).

CO-ORDINATORS :

S. Sundar and Y.V.S.S. Sanyasiraju (IIT Madras); S. Baskar and S. Sivaji Ganesh (IIT Bombay).

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: npde.2012@gmail.com or by post to the following contact address.

Last date of receipt of application: 04/04/2013

Selection of participants will be based on their academic records and recommendation letter.

List of selected participants will be put on the web page by 07/04/2013

CONTACT

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