INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

NATIONAL PROGRAMME ON DIFFERENTIAL EQUATIONS: THEORY, COMPUTATION & APPLICATIONS

NPDE-TCA-2012

(Sponsored by DST)

IIT Bombay is happy to announce the launching of 5-year National Programme on **Differential Equations: Theory, Computation and Applications** sponsored by Department of Science and Technology, Government of India.

MISSION :

To Create Human Resource and Generate Knowledge Source for Academia and Industry in the area of Differential Equations for real life problem

OBJECTIVES :

- To attract young talented students to study and to pursue research in the area of Differential Equations.
- To create a pool of trained mathematicians to support the advancement of science and technology.
- To promote fruitful interaction between academia and industry.
- To provide a platform for academic interaction and collaborative research amongst mathematicians and scientists in the country.
- To expand and strengthen existing expertise in the area of Differential Equations at various institutions in the country.

ACTIVITY 1 : Three Week Training Programmes

Undergraduate (UG) Level :
IMA, Bhubaneswar
May 7 - 26, 2012

Post-Graduate (PG) Level :
IIT Delhi
May 14 - June 2, 2012

Advanced Level :
IIT Bombay
June 10 - 30, 2012

ACTIVITY 2 : Modelling Week and Study Group Meeting on Industrial Problems

M.S University, Baroda
December 3-15, 2012

ACTIVITY 3 : Advanced Thematic Programme, 2012-2013

Topic: New Trends in Partial Differential Equations : Theory and Computation

Department of Mathematics
IIT Bombay

- **Seminars and Colloquia :**
  We expect visitors from India and abroad to give weekly seminar/colloquium on the topics of common interests. List of speakers to be released soon.

- **Workshops & Symposia :**
  Likely topics are
  - Advances in Hyperbolic PDEs
  - Advances in Evolution Equations
  - Advances in Finite Element Methods: Adaptive Methods and Discontinuous Galerkin Methods
  - Multiscale Analysis and Homogenization
  - Advances in PDE Optimizations
  - Advances in Quantitative Finance : Computation of Option Derivative Pricing
  - Advances in Inverse Problems

ACTIVITY 4 & 5: Internship &Visitors Programme

To support our earlier stated activities, we shall have 20 internships for young participants from India in the internship programmes. In the visitor's programme there will be funding available for 20 researchers from India and 6 researchers from abroad.

NATIONAL SCIENTIFIC ORGANIZING COMMITTEE

Amiya K. Pani, IIT Bombay; Mohan K. Kadalbajoo, IIT Kanpur; V. Sree Hari Rao, JNTU Hyderabad; B. V. Ratish Kumar, IIT Kanpur; Arindama Singh, IIT Madras; G.D. Veerappa Gowda, TIFR Bangalore; A.K. Nandakumaran, IISc, Bangalore; K. Sreenadh, IIT Delhi; Rajen K. Sinha, IIT Guwahati; Neela Nataraj, IIT Bombay; J.C. Mandal, IIT Bombay; V. D. Pathak, MS University of Baroda; Mohan C. Joshi, IIT Bombay; A. S. Vasudeva Murthy, TIFR Bangalore; Peeyush Chandra, IIT Kanpur; Suresh Kumar, IIT Bombay.

LOCAL EXECUTIVE COMMITTEE

Amiya K. Pani, Neela Nataraj, S. Baskar, Sivaji Ganesh Sista, J.C. Mandal, Mallikaruna Rao, Suresh Kumar, Mira Mitra, Mohan C. Joshi.

TARGET AUDIENCE

Apart from students in Mathematics, scientists and engineers in Academia, R & D Organizations and Industry cutting across all disciplines.

PARTICIPATION

To participate in any of the above mentioned activities, fill in the required form which can be downloaded from the website: http://www.math.iitb.ac.in/~npde-tca

CONTACT :

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