# REGISTRATION FORM NATIONAL WORKSHOP CUM TRAINING PROGRAMME

# ADVANCED NUMERICAL TECHNIQUES AND APPLICATIONS (NWCTP-ANTA)

Whether studied/attended any course on Numerical Methods:
(If yes please give brief outlines of the course attended on separate paper)

Address for Correspondence:

Telephone Numbers:

(Please submit the list of publications on separate paper)

Email:....

Mobile :....

Signature of the Candidate Date:

Signature and Seal of the HOD / Principal

# Contact Persons:

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Department of Mathematics

**Faculty of Science** 

**Banaras Hindu University** 

Varanasi-221005



NATIONAL WORKSHOP CUM TRAINING PROGRAMME ON ADVANCED NUMERICAL TECHNIQUES AND APPLICATIONS (NWCTP-ANTA)

(June 29 - July 11, 2009)



Organized by

DST CENTRE FOR INTERDISCIPLINARY MATHEMATICAL SCIENCES (CIMS),

&

DEPARTMENT OF MATHEMATICS, FACULTY OF SCIENCE.

BANARAS HINDU UNIVERSITY, VARANASI-221005

# **Objective**

he two weeks national workshop is being organized to train the research scholars, young scientists of central / state research organizations and the young teachers of universities and affiliated colleges in advanced numerical techniques, and applying them in solving the research problems. Further the participants will be made familiar with the development of computer programming based on the above numerical methods. Apart from lectures by subject experts regular sessions on problem solving will also be organized.

#### Theme

With the advent of high speed computing machines, the research in different fields of Science and Engineering has shifted from theoretical to computational techniques. Numerical methods have emerged as one of the indispensible tools in solving the problems related to the different fields of Science and Engineering. Now-a-days Scientists, Engineers and Researchers are applying numerical techniques frequently. Thus the main purpose of this workshop cum training programme is to provide a common platform to the young researchers and make them acquainted with the advanced numerical techniques with the help of the experts in the field of Numerical Analysis. Further the participants will also be trained in solving the problems with the help of these numerical techniques using computer programming.

#### **About the DST-CIMS**

The Centre for Interdisciplinary Mathematical Sciences (CIMS) has been established by the Department of Science and Technology, Government of India, New Delhi in Banaras Hindu University, Varanasi in November 2007 to promote research and training in all branches of Mathematics, but particularly those of interdisciplinary nature. The Departments of Mathematics, Statistics, Applied Mathematics and Computer Sciences are its participating departments. At present Mathematical Modelling and Computational Mathematics is one of the thrust areas of CIMS.

#### **Important Dates**

Notification of the workshop : 15.03.2009

Last Date for submission of

application with CV : 25.05.2009
Communication to the

Communication to the selected candidates

: 10.06.2009

Confirmation from the selected candidates

20.06.2009

#### Eligibility

Young scholar preferably below 35 years of age who have done their Post Graduation in Mathematics / Statistics / Theoretical Physics or in any interdisciplinary area of mathematics are eligible to apply.

#### **Local Hospitality**

There is no registration fee for attending the workshop. For the participants all expenses will be met by CIMS, including to and fro second class sleeper train fare, local accommodation, food, study materials, stationery etc.

#### Mode of Selection

Selection of the participants will be on all India basis.

#### How to Apply

The eligible candidates who wish to participate in the workshop must apply on the prescribed format along with CV. Attested photo copies of all mark sheets must be enclosed with the application form. The application must be forwarded by the Head of Department / Principal etc. The candidates are requested to send their applications well in time so that we could receive them on or before the due date. Received applications will be scrutinized and the selected candidates will be informed by the prescribed date. Selection of the candidate will be cancelled and the chance will be given to the next candidate if participation is not confirmed by the due date.

Application form completed in all respect must reach by the closing date of submission of applications i.e. **25.05.2009** to the following address:

Dr. B.S. Bhadauria, Consvener, (NWCTP-ANTA) Dept. of Mathematics, Faculty of Science, BHU, Varanasi, PIN-221005. Mobile: 9453641182

#### About Varanasi

Varanasi is well connected by railways and airlines to all major cities of India.

The weather in Varanasi in the month of July remains quite pleasant due to the rainy season.

### **Expected Speakers**

- Prof. S.R.K. Iyenger, IIT, Delhi
- · Prof. R.K. Jain, IIT, Delhi
- Prof. G.D.V. Gowda, IISc(TIFR), Banglore
- Prof. R.S. Gupta, IIT Roorkee
- Prof. R.C. Mittal, IIT Roorkee
- Prof. R.K. Pandey, IIT Kharagpur
- Prof. R.K. Mohanty, Delhi University
- · Prof. C.P. Katti, JNU, Delhi
- Prof. M.K. Kadalbajoo, IIT Kanpur
- Prof. B. V. Ratish Kumar, IIT Kanpur
- Prof. Naveen Kumar, Dept. of Maths., BHU
- Prof. S.R. Singh, Dept. of Maths., BHU
- Prof. Ashok K. Singh, Dept. of Maths., BHU
- Dr. B. S. Bhadauria, Dept. of Maths., BHU
- Dr. Arvind K. Singh, Dept. of Maths., BHU.

#### **Advisory Committee**

- Prof. Umesh Singh, Coordinator, DST-CIMS
- Prof. R.B. Mishra, Head, Dept. of Maths., BHU
- Prof. K.N. Rai, Head, Dept. of Applied Maths., BHU
- Prof. V.K. Singh, Head, Dept. of Statistics, BHU
- Prof. A.K. Srivastava, Co-coordinator-CIMS
- Dr. P.K. Mishra, Head, Dept. of Comp. Science, BHU
- Prof. Naveen Kumar, Dept. of Maths., BHU
- Dr. L.P. Singh, Dept. of Applied Maths., BHU
- Dr.(Ms.) S. Mukhopadhyay,
   Dept. of Applied Maths., BHU
- Dr. A.K. Misra, Dept. of Maths., BHU.

#### **Contents**

- Eigen Value Problems
- Numerical Solutions of ODEs
- Numerical Solutions of PDEs
- Finite Difference Methods
- Finite Element Methods
- Computer Programming