

Short Term Course on
Numerics of PDE Solvers
Organized by
Department of Applied Mathematics
Indian Institute of Technology (ISM), Dhanbad

November 27 - 29, 2017

REGISTRATION FORM

Name :

Designation :

Qualification :

Organization :

Address for Correspondence :

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Tel. (O)(M)

E-mail:

DD Particulars/online transfer:

AmountNo.....

DateBank

Accommodation Required: Yes / No

Date:

Place:

Signature of the Applicant

Forwarded through Head of the Dept/ Institution

CHIEF PATRON

Prof. D.D. MISRA
Chairman GC & EB, IIT(ISM) DHANBAD

PATRON

Professor D.C. Panigrahi
Director, IIT (ISM)Dhanbad.

ORGANIZING COMMITTEE

Professor Vishnu Priye, Dean (R & D), IIT (ISM) Dhanbad
Professor S Gupta, (HOD/AM , **Convener**) IIT (ISM) Dhanbad
Professor R K Upadhyay, IIT (ISM) Dhanbad
Prof. B.V. Rathish Kumar, IIT Kanpur
Dr P S Rao, IIT(ISM) Dhanbad - **Coordinator**
Indian Institute of Technology (Indian School of Mines)
Dhanbad -826 004, Jharkhand State, India.
Ph: 0326-2235766, 09471191351(M)
E-mail: pentyalasrinivasa@gmail.com

INVITED SPEAKERS (TENTATIVE)

Prof. B.V. Rathish Kumar, IIT Kanpur
Prof . P.V.S.N Murthy, IIT Kharagpur
Prof .S.V.K. Verma, S.V University, Tirupathi.
Prof B. Rushi Kumar, VIT University, Vellore
Prof. Y N Reddy, NIT Warangal
Dr P S Rao, IIT (ISM) Dhanbad

Short Term Course on
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Coordinator
Dr. P S RAO



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DEPARTMENT OF APPLIED MATHEMATICS
INDIAN INSTITUTE OF TECHNOLOGY (ISM)
DHANBAD 826 004
Jharkhand State, India.

INTRODUCTION

Scientific Computing involves numerical modelling and simulation of real life problems like computational fluids flows; porous media heat transfer, numerical weather prediction, image processing and so on. All these models require high precision numerical algorithms with huge computational recourses and demands high accuracy. Since the real life models are highly nonlinear due to its multi dimensional properties and abrupt variations due to external forces and solving these problems is the need of current research.

ABOUT THE PROGRAM

The aim of the present program is to introduce the multi dimensional variables which influence the system for numerical simulations of real life applications that arise in petroleum industry, mine industry, Mechanical Seals, Machine Tool Ways, Piston Rings and so on. These real life problems are highly complex due to enhanced and abrupt variations in machinery that may be due to high heat or high friction etc. With the advent of data analysis numerical methods like finite difference numerical technique, finite element, finite volume, domain decomposition and so on. The course contents include:

- Numerical Modeling of real life systems
- Data Analysis of Numerical Simulations
- Management of Heat Flow and Hydro carbon exploitation control in deep mines and Temperature prediction
- Enhanced Oil recovery in Porous media
- Computational Fluid Dynamics
- Insulation Technology Data Analysis

- Load enhanced Modules of Machines.
- Super Computing Applications in industry

ELIGIBILITY CRITERIA

The programme is aimed at Industry Scientists, Managers, Software Professionals, faculties of all disciplines of mathematics; science and engineering and Research scholars who wish to gain a basic understanding of the concepts involved and advanced tools for numerics.

REGISTRATION FEE

The following registration fee includes course kit, Breakfast, lunch & Dinner tea & snacks for all the three days (with accommodation)

For Faculty:	Rs. 5000/-
Research Scholars and PG Students	Rs. 3000/-
Software and R&D Organizations	Rs. 8000/-

Registration fee for IIT (ISM) faculty, JRF & M.Tech students.

For Faculties:	Rs. 3000/-
Research Scholars and PG Students	Rs. 500/-

No TA and DA will be paid to the participants as it is self financed course. The registration fee may be paid through Demand Draft (DD) drawn in favour of "Registrar, IIT (ISM) Dhanbad, payable at **Canara Bank, Saraidhela Branch, and Dhanbad**. Also on line transfer can be made to the Registrar (Project Account),**CANARA Bank, Saraidhela Branch, Dhanbad, Jharkhand State**, A/C No: **0986101009746, IFSC Code: CNRB0000986, MICR Code: 826015003**. The filled in registration form along with the DD/online transfer receipt should be sent to.

Dr. P S Rao , Coordinator, Department of Applied Mathematics, Indian Institute of Technology (Indian School of Mines), Dhanbad – 826 004, Ph: 09471191351
E-mail: pentyalasrinivasa@gmail.com

Last Date for Registration: 25nd November, 2017

ABOUT THE DEPARTMENT

The Department of Applied Mathematics is a highly reputed Department which functions with excellence as its motto. The Department was started in the year 1926 along with other Engineering and Science Departments of the institute and has established itself as a dynamic centre for academic and research activities. In addition to the teaching of courses in Mathematics for B. Tech and M.Tech Programmes, the Department offers two P.G. Programs, M.Sc (Mathematics & Computing) and 5 Yr. Int. M.Tech (Mathematics and Computing). The faculty is actively engaged in research in diverse fields such as Solid Mechanics, Fluid Dynamics, Bio Mechanics, Operations Research, Cryptography and Analysis. At present, there are 21 members on the Teaching Faculty in the Department and more than 100 Research Scholars are working for their Ph.D. The Department has a full-fledged computation laboratory to meet the requirements of the M.Sc. students, research scholars and the faculty.

ABOUT THE INSTITUTE

The Indian National Congress at its XVII Session of December 1901 passed a resolution stating that "in view of the fact that the tendency of recent legislation namely, The Indian Mines Act VII of 1901, is that all Indian mines must be kept under the supervision of mining experts, the Congress is of opinion that a Government College of Mining Engineering be established in some suitable place in India on the models of the Royal School of Mines in England, Mining Colleges of Japan and at other places in the continent". The McPherson Committee formed by Govt. of India, recommended the establishment of an institution for imparting education in the fields of Mining and Geology, whose report, submitted in 1920, formed the main basis for establishment of the Indian School of Mines, Dhanbad. On 10th August, 2016 Gazettee of India notified the conversion of ISM into Indian Institute of Technology (ISM) under the Technology act of ministry of Human Resource development, Govt. of India.