NIT Rourkela

NIT Rourkela is a premier centre for teaching, research and industrial consultancy in the country. At present, the institute has 21 departments and the campus is situated in lush green zone with beautiful hills and ponds. The institute offers B.Tech, M.Tech and Ph.D. programmes in all the disciplines. The city of Rourkela has a German sponsored public sector undertaken steel plant (SAIL) along with many supporting small scale industries around the city.

Mechanical Engineering

The department trains the students in Mechanical Science as well as those under interdisciplinary programs. The broad areas of interest in the Department include Mechanics of Solids and Stress Analysis, Dynamics and vibrations, Manufacturing Science & Industrial Engineering, Energy Conversion and Power Systems, Heat Transfer and Fluid Mechanics, Engineering Design and cryogenics. Department offers four streams of post graduate programs: (i) Machine Design and Analysis (ii) Production Engineering (iii) Thermal Engineering and (iv) Industrial Cryogenics. The department has good number of laboratories with latest facilities.

Objective of the Conference

Today, several problems in practice are found to be of multi-field nature. For example to predict thermal coefficient of expansion of new material, one has to solve coupled thermomechanical problem. Theoretical developments and computational techniques for solving different problems span over multiple scales.. Use of multiphysics and multiscale modeling in different disciplines including applied dynamics, vibration control

manufacturing science, electromagnetic engineering has been widely prevalent now-adays. In this context, this conference aims at covering various topics over a broad range that come under multiphysics type. Mathematical numerical simulation, theorv. physical experiments, engineering design, information techniques, biological and financial studies, and other applications are included in the main program of the conference. Along with paper presentation sessions, internationally leading experts in this area will deliver keynote lectures.

The Conference Topics/Themes

Interested researchers, academicians and scholars are requested to share their relevant contributions in the following areas, but not limited to:

- Novel models and formulations for multiphysics and multiscale problems.
- Domain decomposition methods and multisolver schemes
- Novel and efficient temporal and spatial coupling schemes
- Nonlinear modelling and simulation methods
- Higher-order and multire solution basis functions for multiscale problems
- Parallel computation techniques
- Hybrid methods for multiphysics and multiscale problems
- Any other contemporary topics relevantly.

Full length papers with abstract, keywords, and body may be uploaded in to conference mail account <u>rdcfpe2018@gmail.com</u> on or before **1**st **May, 2018**. After review, comments and suggestions will be mailed for modification. All the finalized papers will be submitted to good impact factor journals after presentations. **National Conference**

ON

"Recent Developments of Coupled-Field Problems in Engineering" (RDCFPE 2018)

July 27 - 29, 2018



Organized by

Department of Mechanical Engineering National Institute of TechnologyRourkela-769 008, India http://www.nitrkl.ac.in National Conference on 'Recent Developments of Coupled-field Problems in Engineering'

27-29th July 2018

Registration form

(It may be printed on A4 size paper)

2. 3. 4.	Name: Designation: Department: Institution/Organization: Address:
	E-mail Address:
6.	Mobile/Tel Ph.:

7. Areas of Research interests:.....

.....

.....

8. Accommodation wanted: Yes/No

Date Signature **Patron** Prof. A.Biswas, Director, NIT Rourkela

Chairperson Prof.D.R.K.Parhi, Department of Mechanical Engineering

Joint Organizing Secretaries

Prof. J.Srinivas, Department of Mechanical Engineering Prof. S.K.Behera, Department of Mechanical Engineering Prof.S.Ghosh Department of Mechanical Engineering

Advisory Committee

Prof. V.V.Silberschmidt, Loughborough University, UK Prof.Arvind Raman, Purdue University, US Prof. S.H.Yang, Kyungpook National University, Daegu, S.Korea Prof.G.P.Rajasekhar, IIT Kharagpur Prof.K.K.Shukla, MNNIT Allahabad Prof.Ch.Ratnam, Andhra University

Local Organizing committee

Prof.S.K. Panda, NIT-Rourkela Prof. S.Datta, NIT Rourkela Prof.H.Roy, NIT Rourkela Prof.T.Roy, NIT Rourkela Prof.Ambarasu, NIT Rourkela Prof.Pradeep Sarkar, NIT Rourkela Prof.Davis Robin, NIT Rourkela Prof.M.Rajik Khan, NIT Rourkela Prof.B.B.V.L.Deepak, NIT Rourkela Prof.D.S.Bisht, , NIT Rourkela Prof.Mohit Lal, NIT Rourkela

Registration Fee

Student/Research ScholarsRs.2000Faculty from academics: Rs.4000R&D/Industry DelegatesRs.5000

Hard copy of filled in and duly signed registration form forwarded by Principal//HOD of the Institute should be sent to the contact person on or before **1st June 2018** along with Demand Draft/multicity cheque. Also, registration can be done through online transfer (Bank Account No. 36734418111, on the name of 'Conference NIT Rourkela' payable at NIT Rourkela SBI (IFSC code: SBIN0002109).

Accommodation

Accommodation will be provided on pre-request in the institute guest house. It is purely first come basis. Other than institute guest house, many hotels are available at Rourkela. Location of institute and transport facilities can be found in website <u>www.nitrkl.ac.in</u>.

Contact Details

Convenor Prof.J.Srinivas, <u>srin07@yahoo.co.in</u> Phone: 0661 2462503 Co-covenor Prof.S.K.Behera Phone: 0661 2462508 Department of Mechanical Engineering, NIT-Rourkela E-mail: <u>rdcfpe2018@gmail.com</u>