



*National Conference  
on*

## **Processing & Characterization of Materials (NCPCM 2011)**

**December 2-3, 2011**

**Organized by**



**Department of Metallurgical and  
Materials Engineering  
National Institute of Technology,  
Rourkela – 769 008**



### **Deadlines:**

Abstract submission deadline: 31/10/2011  
Abstract acceptance deadline: 15/11/2011  
Early registration payment: 25/11/2011

### **Accommodation:**

Limited accommodation will be provided by the institute guest house on payment basis. Prior information for requirement of institute accommodation is to be intimated. However, accommodation will be available in many hotels of Rourkela city at reasonable tariff on payment. The Institute is situated only at 15 minutes driving distance from the city.

For Institute accommodation, please contact

Prof. S. Sarkar (Email id: [smarajit@nitrkl.ac.in](mailto:smarajit@nitrkl.ac.in))

Prof. S. K. Sahu (Email id: [santoshsahoo@nitrkl.ac.in](mailto:santoshsahoo@nitrkl.ac.in)).

### **Conference Fees:**

Category	Fees
Delegates from Industry	₹ 3500
Delegates from academics and R&D	₹ 1500
Research scholars/Graduate Students	₹ 750

### **Conference Organization:**

**Patron:** Prof. P. C. Panda, Director, NIT Rourkela

**Chairman:** HOD, Metallurgical and Materials  
Engineering Department, NIT Rourkela

**Convener:** Prof. B. B. Verma

**Co-convener:** Prof. A. Basu and Prof. K. Dutta

**Treasurer:** Prof. D. Chaira

**Local organizing committee:**

Prof. S. Sarkar                      Prof. S. K. Sahu  
Mr. R. Pattnaik                      Mr. S. Hembram

**Technical committee:**

Prof. B. C. Ray                      Prof. D. Chaira  
Prof. S. N. Alam                      Prof. A. Mallik

For details please visit:

[www.nitrkl.ac.in/conference/ncpcm2011](http://www.nitrkl.ac.in/conference/ncpcm2011)

Mail to:

**Prof. B. B. Verma,  
Department of Metallurgical and Materials Engineering  
National Institute of Technology,  
Rourkela – 769 008, Orissa.**

Ph: 0661 246 2551, Fax No: 0661 2472926

Mobile: +91 9437684942

Email id: [ncpcm2011@gmail.com](mailto:ncpcm2011@gmail.com)

## Aim of the conference:

Advanced processing of materials and their subsequent characterization has become more relevant with the advancement of technology and need of high quality materials for critical applications. The purpose of this conference is to bring to light recent developments in materials processing and characterization. The conference is expected to attract the researchers, scientists, practicing engineers from various R & D organizations, academic institutions and industries at a single forum. The interdisciplinary approach of the conference may allow the participants to look beyond their areas of activities. The organizers of the conference are already in touch with eminent researchers to deliver key note addresses. This is expected to be a platform for young researcher of the nation to discuss their work with eminent researchers of the fields. Senior practicing engineers, established researchers and faculty members will also get an opportunity to share their knowledge and information.

## NIT Rourkela:

The city of Rourkela came into prominence in the year 1955, with the decision of the Government of India to set up the first Public Sector Steel Plant. It is one of the most beautiful cities of the state of Orissa. National Institute of Technology, Rourkela, is one of the premier institutions of government of India for imparting quality technical education in the country. The institute is surrounded by hills and spread over an area of 262 hectares of land. The well maintained green campus of the Institute provides 100 percent accommodation to students, faculties and staff. The campus has all the amenities for developing personal, social and academic skills of the young people. The institute has 10 engineering, 5 basic science and one each of social science and management departments.

The city is a huge metropolis connected with all parts of the country by railway and road. Domestic air services are available from Ranchi, Bhubaneswar and Raipur. Kolkata is about 400 kilometers from Rourkela. The population of the city is about 6 lakhs. The city experiences beautiful winter. The minimum temperature during December is about 8° Celsius accompanied with bright sunshine. The greeneries and flowers in the campus further make stay very pleasant.

## The Department:

Established in 1964, the department has been emerged as powerhouse for academics, scientific research and cutting edge technologies. With time, the department grew noticeably and established new areas of research and teaching in materials engineering, while retaining its strength in traditional areas in metallurgical engineering. The department attracts highly qualified faculties and bright students from the entire nation. The well-developed infrastructure and diversified expertise of the faculties has provided the department a global acceptance. The graduates from the department are well-accommodated in esteemed industries or institutions. The department is actively involved in the research activity in the front line areas of metallurgical and materials engineering. Some of its research partners are BARC, SAIL, CSIR, Tata Steels, Dalmia Research Institute Rourkela, Orissa Cement Ltd. Rajgangpur and nearby industries.

## List of Areas:

- ❖ Advanced Materials Processing: Metal working, Joining of materials, Solidification and casting, Mechanical alloying, PVD, CVD, Laser processing, Powder Processing.
- ❖ Surface Engineering: Diffusion surface hardening, Coating, Thin films, Laser surface treatment.
- ❖ Mechanical Characterization and Failure Analysis
- ❖ Advanced Material Characterization Techniques: XRD, Electron Microscopy (SEM, TEM, AFM, STM), FTIR, RF Spectroscopy, Raman Spectroscopy
- ❖ Thermal Characterization Techniques-DSC, DTA, TG.
- ❖ Materials for nuclear industries.

## Guidelines for Abstract Preparation:

- ❖ The extended graphical abstract (350-500 words) can be uploaded in the conference website (Microsoft word file), which must carry sufficient information for fair assessment and should contain the following: Full title of the paper (Title case, Font size 14, **Bold**, Name(s) of author(s) Font size 12, **Bold**, affiliation, and e-mail id of the corresponding author, (Font size 11, **Bold**), brief introduction, results, experimentation and findings of the work (Font size 12). All fonts should be **Arial** (except symbols). The name(s) of corresponding author and presenting author should be mentioned.
- ❖ A conference volume of abstracts will be published and distributed to the registered participants during the conference.

National Conference  
on

## Processing and Characterization of Materials (2nd – 3rd December 2011)

### REGISTRATION FORM

1. Name: \_\_\_\_\_

(Capital letters)

2. Designation: \_\_\_\_\_

3. Organization: \_\_\_\_\_

4. Mailing Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ PIN \_\_\_\_\_

5. Telephone: \_\_\_\_\_

6. Fax: \_\_\_\_\_

7. Email: \_\_\_\_\_

8. Details of Registration Fee:

DD No.: \_\_\_\_\_ Date: \_\_\_\_\_

Amount: \_\_\_\_\_ Bank: \_\_\_\_\_

9. Expected date and time of

• Arrival: \_\_\_\_\_

• Departure: \_\_\_\_\_

Place:

Date :

Signature

➤ All payments are to be made by a/c payee demand draft drawn in favor of "NCPDM 2011" payable at SBI, NIT Rourkela Branch, (Code-2109).

➤ Photocopy of this form can also be used.