



# INTERNATIONAL CONFERENCE ON METALLURGICAL & MATERIALS PROCESSES, PRODUCTS AND APPLICATIONS

**Jan. 8-10, 2014**

## Academic Partners:



Indo-US Collaboration for  
Engineering Education

## Co-sponsors



**O.P. Jindal Institute of Technology**

Knowledge Park, Punjipatra, Raigarh (C.G.) PIN : 496109

Website : [www.conference.opjit.org](http://www.conference.opjit.org)



**FOR FURTHER INQUIRIES:**

Contact @ +91 8120062259, 9691695908  
Emails: [mahesh.bhiwapurkar@opjit.edu.in](mailto:mahesh.bhiwapurkar@opjit.edu.in)  
[ashok.srivastava@opjit.edu.in](mailto:ashok.srivastava@opjit.edu.in)



## OPJIT: AT A GLANCE:

The O.P. Jindal Institute of Technology was established with the primary motive to "Impart quality education and train the youth to take up the future challenges of evolving INDIA". The Institute is a dream come true of its founder late Shri O.P. Jindal, an eminent industrialist, politician and great philanthropist. The Institute is affiliated to Chattisgarh Swami Vivekanand Technical University, Bhilai and is recognized by All India Council for Technical Education (AICTE), Ministry of HRD, Government of India. The Institute was established in the year 2008 under the aegis of The Jindal Education and Welfare Society (JEWS) and is committed to groom the budding technocrats to create an ideal society. It is promoted by Jindal Steel and Power Limited, Raigarh, India.

## PREAMBLE:

Economic growth of a country to a large extent revolves around the growth of metallurgical sector. Current global trend indicates continuous increase in demand of steel in the present and years ahead. Driven by international scenario and a buoyant domestic market condition, India is poised to make a quantum jump in iron and steel production by modernizing the existing facilities and installation of additional units. However, the challenges to steel industry will be insufficient raw material, over consumption of energy and its detrimental impact on the environmental stability. Healthy development of the sector lies in the successful handling of the challenges through application of fundamental understanding, adoption of superior technology and close monitoring of the process performance. Since Metallurgical Engineering and its applications contribute immensely to the structural framework behind the progress of a nation, a huge responsibility falls on metallurgy and material science professional to implement all that the academic and research community puts forth in journals, slides and books.

## JINDAL GROUP:

In the world of business, the Jindal Organization is a celebrity. Ranked sixth amongst the top Indian Business Houses in terms of assets, the Group today is a US \$17 Billion conglomerate. Jindal Organization, set up in 1970 by the steel visionary Mr. O.P. Jindal, has grown from an indigenous single-unit steel plant in Hisar, Haryana to the present multi-billion, multi-locational and multiproduct steel conglomerate. The organization is still expanding, integrating, amalgamating and growing. New directions, new objectives... but the Jindal motto remains the same- "We are the Future of Steel".

The group has been technology-driven and has a broad product portfolio. Yet, the focus at Jindal has always been steel. From mining of iron-ore to the manufacturing of value added steel products, Jindal has a pre-eminent position in the flat steel segment in India and is on its way to be a major global player, with its overseas manufacturing facilities and strategic manufacturing and marketing alliances with other world leaders. Jindal Organization aims to be a global player. In pursuance of its objectives, it is committed to maintain world-class quality standards, efficient delivery schedules, competitive price and excellent after sales service.

## ABOUT CONFERENCE:

Metallurgical Engineering and its applications have influenced greatly the emergence of advanced technological endeavour in various engineering sectors like Energy, Steel, Non-ferrous metals, railways, Transport, Space, Medical appliances and Infrastructure etc. To emphasize the need for the study of the metals, minerals and metallurgy and to ignite the minds, the idea of organizing international conference was conceived. International Conference on Metallurgical Processes, Products and Applications aims to bring together leading researchers, engineers and scientists in the domain of interest from around the world. The purpose of this conference is to provide a space for sharing current thinking and practice, underline under what conditions technological research and innovation can foster and promote steel industry and sustainable development. It will also look at the entire spectrum of research and innovation in field of Metallurgical Engineering & technology for a prosperous future.

## EXPECTED OUTCOMES:

- Cost effective steel production.
- Awareness and solutions of the environmental problems.
- Research and innovations in processes and products.
- Technological diversity.
- Development of skills and strategic planning for further development.





## THRUST AREAS:

The Conference is soliciting state-of-the-art research papers in the following areas of interest:

- Recent developments in metallurgical processes
- Mechanical working processes
- Modeling and simulation of materials and devices in steel industry
- Control and instrumentation in steel industry
- Steel microstructures, properties and characterisation
- Coating and surface engineering in metallurgical industry
- Emerging trends in steel industry
- Energy scenario in steel industry
- Environment and sustainability
- Ceramic and composite materials
- Nanostructure materials and technology
- Metals, alloys and steels
- Building and construction materials
- Polymer and environmental friendly materials
- New energy and chemical materials
- Quality control in manufacturing processes
- Noise, vibration and control
- Hazards and safety management
- Material applications in automobiles, electrical, electronics, steel & chemical Industries
- Energy utilization in metallurgical industries.
- Materials for nuclear energy.
- Materials, processes and applications for sustainable development.
- Welding and Joining
- Mechanical behavior of materials
- Creep, Fatigue and Fracture of materials
- Material forming and machining.
- Computational methods in metallurgical and material processes.
- Automation in metallurgical processes
- Technology transfer
- System analysis and system engineering
- Semi-conducting materials
- Any other related areas

## SUBMISSION GUIDELINES

A soft copy of the abstract and full length paper (As per template given in website: [www.conference.opjit.org](http://www.conference.opjit.org)) should be mailed to: [conference@opjit.edu.in](mailto:conference@opjit.edu.in) or submit it to <https://www.easychair.org/conferences/?conf=mmppa2014>.

## IMPORTANT DATES:

Last date for Submission of abstracts	Sept. 15, 2013
Confirmation of acceptance	Sept. 20, 2013
Submission of full length papers	Sept. 30, 2013
Last date for registration	Oct. 15, 2013
Conference dates	Jan. 8-10, 2014

## REGISTRATION FEE

CATEGORY	INDIA	ABROAD
Faculty	Rs 3000	USD 300
Research Scholars & Students	Rs 2000	USD 200
Industry Personnel	Rs 5000	USD 500

### Registration fee is to be deposited into :

A/C no : 32303804933  
A/C Name : OP Jindal Institute of Technology Conference  
IFSC Code : SBIN0012145  
Bank Name : SBI, Gerwani  
Branch Code : 12145



## INTERNATIONAL ADVISORY COMMITTEE:

- Daniel James Branagan: The Nanosteel Company, USA
- S. Komar Kawatra: Michigan Technological University, USA
- Krishna Vedula: University of Massachusetts Lowell, USA
- I. M. Richardson: Delft University, Netherlands
- HKDH Bhadeshia: University of Cambridge, UK
- Sir Colin Humphreys: University of Cambridge, UK
- David K. Matlock: Colorado School of Mines, USA
- Koh-ichi Sugimoto: Shinshu University, Japan
- Bin Yang: University of Science and Technology Beijing, China
- Jung Il Song: Changwon National University, Korea
- Dr. Yusuf SAHIN: Gazi University, TURKEY
- Prof. Kiet Tieu: University of Wollongong, Australia
- Prof. Peter Hodgson: Deakin University, Australia
- Ravi Uppal: Jindal Steel and Power Limited, India
- Arun Somani: Iowa State University, USA

## NATIONAL ADVISORY COMMITTEE:

- Prof. O. N. Mohanty: BPUT, Odisha
- Prof. B. K. Nanda: VSSUT, Odisha
- Prof. M. Chakraborty: IIT Bhubaneswar
- Prof. Indranil Manna: IIT Kanpur
- Dr. S. Srikanth: NML, Jamshedpur
- Prof. B. K. Mishra: CSIR – IMMT, Bhubaneswar
- Dr. Amol A Gokhale: DMRL, Hyderabad
- Mr. Atul Mishra: JSPL, Raigarh
- Prof. Gautam Biswas: CMERI, Durgapur
- Dr. G. K. Dey: BARC, Mumbai
- Dr. P. R. Vasudeva Rao: IGCAR, Kalpakkam
- Prof. D. C. Panigrahi: ISM, Dhanbad
- Dr. M. Kamaraj: IIT Madras
- Dr. S. P. Harsha: IIT Roorkee
- Prof. S. Ray: IIT Roorkee

## ORGANIZING COMMITTEE:

### Patron

**Shri Naveen Jindal**

Chairman, Jindal Steel & Power Ltd, India

### Chairman

**Prof. B. K. Sthapak**

Founder Vice Chancellor, CSVTU, Bhilai  
& Principal Director, OPJIT Raigarh

### Conveners

**Dr Asok Joarder**

Dept. of Metallurgical Engg.  
OPJIT, Raigarh

**Dr Mahesh Bhiwapurkar**

Dept. of Mechanical Engg.  
OPJIT, Raigarh

### Co-Conveners

**Dr A. K. Srivastava**

Dept. of Metallurgical Engg.  
OPJIT, Raigarh

**Mr Ashok Bhansali**

Dept. of Comp. Sc. and Engg.  
OPJIT, Raigarh

**Dr Sanjay Kumar Singh**

Dept. of Humanities  
OPJIT, Raigarh