



2<sup>nd</sup> International Conference on  
Powder, Granule and Bulk Solids:  
Innovations and Applications  
December 1-3, 2016  
Jaipur (Rajasthan), India

Organized by  
Department of Mechanical Engineering  
Thapar University



## INTRODUCTION

The Second International Conference on Powder, Granule and Bulk Solids: Innovations and Applications (PGBSIA 2016) is going to be held in the historic, royal city of Jaipur (Rajasthan), India from December 1 to 3, 2016. The conference is being organized by the Department of Mechanical Engineering of Thapar University and is an initiative of the Particle and Bulk Solids Research Group of the same institute. The areas of interests cover various fundamental and applied aspects of particle technology, from nano to bulk to ore: particle synthesis, preparation, characterization, measurement, instrumentation, storing, conveying, processing, modelling, scale up procedures, simulation techniques, dust and environmental hazards etc.

## KEY FEATURES

- Strong Academic-Industry participation from around the world
- Several keynote lectures from various international experts engaged in particle technology research and applications
- High quality paper and presentations; papers will be peer-reviewed by international scientific community
- Selected papers will be published in a special issue of International SCI Journal with impact factor, such as: Particulate Science and Technology, Taylor & Francis
- Several workshops to be conducted by the experts in specialized areas, covering fundamentals, designs, scale-up, industry case studies etc
- Exhibition of products/latest developments covering various aspects of particle technologies

## WHO SHOULD ATTEND

- Academicians (from Universities and Institutes)
- Researchers, scientists, PhD students and research scholars
- Design engineers and consultants
- Plant owners, managers, operators and maintenance personnel
- Manufacturers, suppliers/contractors for instruments and systems
- Members of professional bodies

## BENEFITS OF ATTENDING

- Increased awareness of academic and scientific researchers about the areas of industrial applications, problems, requirements, equipment/instrumentation
- Future research and development directions and research projects
- Increased awareness of industry users/suppliers about the areas of academic achievements, expertise and capabilities
- Increased academic and industry networks, linkage and relationships
- Opportunity to learn about the latest equipment/hardware/processes from the exhibitors



## TOPICS

- Particle formation, synthesis, processing, modification (agglomeration, coating, attrition, compaction) and characterization
- Contact mechanics of particle interaction, particle adhesion and cohesion
- Bulk solids technology - storing, processing, conveying: belt, slurry, pneumatic conveying etc, hoppers and silos, crushing, segregation
- Aerosol and electro-sprays
- Dust hazards: explosion, suppression, extraction and prevention
- Interactions between particles with environment/human health, industrial hygiene and safety
- Fluidization: fluidized bed combustion, reactors and dryers
- Modelling and simulation techniques applied to all of the above, including Computational Fluid Dynamics (CFD) and Discrete Element Methods (DEM), imaging of particle and bulk flow

## KEYNOTE SPEAKERS

**Prof. Prabir Basu**, Department of Mechanical Engineering, Dalhousie University, Canada

**Prof. Giuseppe Bonifazi**, Department of Chemical Engineering, University of Rome, Italy

**Prof. Mike Bradley**, Faculty of Engineering and Science, University of Greenwich, UK

**Prof. Rajesh Dave**, Department of Chemical, Biological and Pharmaceutical Engineering, New Jersey Institute of Technology, USA

**Prof. Álvaro Ramírez-Gómez**, Department of Mechanical, Chemical and Industrial Design Engineering, Technical University of Madrid, Spain

**Prof. Haim Kalman**, Department of Chemical Engineering, Ben Gurion University, Israel

**Dr. Richard LaRoche**, CEO, DEM Solutions Ltd, UK

**Prof. Stefan Luding**, Faculty of Engineering and Technology, University of Twente, The Netherlands

**Prof. Wolfgang Peukert**, Institute of Particle Technology, University of Erlangen, Germany

**Dr. Chandana Ratnayake**, Tel-Tek Institute, Norway

**Prof. Jurgen Thomas**, Mechanical Process Engineering, Otto von Guericke University of Magdeburg, Germany

**Prof. Mikio Sakai**, Department of Nuclear Engineering and Management, The University of Tokyo, Japan

**Prof. Peter Wypych**, School of Mechanical, Materials and Mechatronics Engineering, University of Wollongong, Australia

**Prof. Chuan-Yu Wu**, Department of Chemical and Process Engineering, University of Surrey, UK

## CALL FOR PAPERS

Authors wishing to present a paper in the Conference are invited to submit original and unpublished research work covering any of the conference topics. Industry delegates are also welcome to contribute their innovative (novel) case studies. Papers will be of maximum 6 pages. All the papers will be peer reviewed by the Scientific Committee. For details about procedure for paper and poster submission and sample abstract and paper formats, visit the conference website. Selected papers will be published in Special Issue of International Journals, such as Particulate Science and Technology, Taylor and Francis.



## CONFERENCE REGISTRATION

		REGULAR REGISTRATION (before 30 <sup>th</sup> September 2016)	LATE REGISTRATION (after 30 <sup>th</sup> September 2016)
<b>India</b>	Unit		
Faculty/Researchers	Rs.	8000	10000
Industry	Rs.	10000	12000
Students	Rs.	6000	8000
<b>International</b>			
Faculty/Researchers	USD (\$)	550	650
Industry	USD (\$)	600	700
Students	USD (\$)	400	500

Accompanying person: Extra charges of Rs. 2000 for Indian and Rs. 100 USD for international delegates. Registration fees (and charges for accompanying person) are non-refundable.

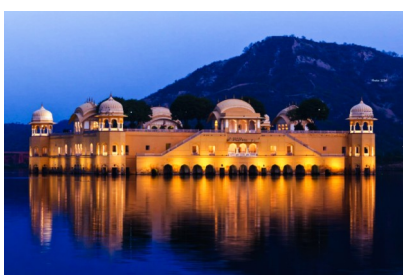
Fees include conference kit, proceedings (either print copy or electronic copy), all lunch and tea/coffee at venue and conference dinner (including cultural program). Sight-seeing charges will come extra. Conference registration form and payment details are available on the conference website.

## IMPORTANT DATES

Call for submission of abstract opens on	:	January 1, 2016
Last date of submission of abstract	:	February 29, 2016
Notification for acceptance of abstract	:	March 31, 2016
Last date of submission of full paper	:	May 31, 2016
Regular registration opens	:	June 30, 2016
Regular registration closes	:	September 30, 2016
Late registration	:	from October 1, 2016

## TRAVEL TO JAIPUR AND SIGHT SEEING TOURS

Jaipur is the capital of India's state of Rajasthan, is a historic city marked by various forts, palaces and ancient monuments. The city is about 250 km to the south-west of New Delhi and is 200 km from the Agra (the city of Taj-Mahal) and being a state capital, is very well connected to New Delhi (National Capital and International hub) and rest of the country through frequent flights, trains and road services. The exact venue for the conference will be updated in the conference website at a later date. Post conference site seeing tour will be in Jaipur and Agra (Taj Mahal). Partner site seeing trips in Jaipur will also be arranged.



## CONFERENCE VENUE

The exact location of the venue will be updated in the conference website.



## THAPAR UNIVERSITY (TU)

Thapar University is a premier educational and research institute located in the 250-acre lush green campus in the city of Patiala. It came into existence in 1956 as an engineering college named Thapar Institute of Engineering and Technology. The institute was granted full autonomy and status of a Deemed University in 1985 by the University Grant Commission. Thapar University is today recognized as leading privately managed Engineering institutions of the country and the best of its kind in the north-western region of India. The aim of the University is to provide high quality technical education at the under- and post-graduate level and to conduct fundamental and applied research in various fields of science, engineering and management. The University offers academic programs: undergraduate, post graduate and doctorate degrees at various disciplines. Since its inception, the University has grown in size and activities with its alumni excelled within the industry, academics and administration both in India and abroad.

## DEPARTMENT OF MECHANICAL ENGINEERING

The Department of Mechanical Engineering was established in 1956 with the inception of the Institute to produce high quality engineers the field of Mechanical Engineering. Since the Institute became a Deemed University in 1985, the department has increasingly focussed on post graduate education and research. The Department offers undergraduate program leading to B.E. Mechanical Engineering, Mechatronics Engineering, Postgraduate programs (M.E.) in Thermal, CAD/CAM & Robotics, Production & Industrial Engineering and Doctoral (PhD) programs. The Department aims to produce quality professionals in Mechanical Engineering to compete globally and excel by carrying out basic and applied research in emerging areas by forging strong industry-institute interaction. The department is currently accredited with NBA and having one the largest workshop and laboratory facilities in North India in areas of particle and bulk solids handling, automobile, engines, renewable energy technologies, nanofluids, manufacturing, automation/robotics, computer aided designs etc.

## PARTICLE TECHNOLOGY RESEARCH AT TU

The faculty and research scholars of different Departments and Schools, such as Mechanical Engineering, Chemistry and Biochemistry etc are actively engaged in research in various areas of powder and bulk solids technologies (fundamentals and applied) through laboratories developed with funding from the Department of Science and Technology (DST), Council for Scientific and Industrial Research (CSIR), University Grants Commission (UGC) Government of India and Thapar University. The aim is to pursue excellence in research and industrial development in key particles and bulk solids technologies and disseminate the research outcome through teaching, journal and conference paper publication, dissertation industrial consultancy/testing, contract research, organization of short-term courses and conferences.

# CONFERENCE COMMITTEE

## International Scientific Committee

Prof. Prabir Basu, Department of Mechanical Engineering, Dalhousie University, Canada  
Prof. Giuseppe Bonifazi, Department of Chemical Engineering, University of Rome, Italy  
Prof. Mike Bradley, Faculty of Engineering and Science, University of Greenwich, UK  
Prof. Rajesh Dave, Department of Chemical, Biological and Pharmaceutical Engineering, New Jersey Institute of Technology, USA  
Prof. Álvaro Ramírez-Gómez, Department of Mechanical, Chemical and Industrial Design Engineering, Technical University of Madrid, Spain  
Prof. Haim Kalman, Department of Chemical Engineering, Ben Gurion University, Israel  
Dr. Richard LaRoche, DEM Solutions Ltd, UK  
Prof. Stefan Luding, Faculty of Engineering and Technology, University of Twente, The Netherlands  
Prof. Wolfgang Peukert, Institute of Particle Technology, University of Erlangen, Germany  
Dr. Chandana Ratnayake, Tel-Tek Institute, Norway  
Prof. Jurgen Thomas, Mechanical Process Engineering, Otto von Guericke University of Magdeburg, Germany  
Prof. Mikio Sakai, Department of Nuclear Engineering and Management, The University of Tokyo, Japan  
Prof. Peter Wypych, School of Mechanical, Materials and Mechatronics Engineering, University of Wollongong, Australia  
Prof. Chuan-Yu Wu, Department of Chemical and Process Engineering, University of Surrey, U.K

## Local Organizing Committee (Thapar University)

Patron : Prof. P. Gopalan, Director  
Advisory Committee : Prof. R. S. Kaler and Prof. S. Mittal, Deputy Director(s), TU  
Conference Chair : Prof. S.K.Mohapatra, Head of the Department of Mechanical Engineering, TU  
Organizing Secretary : Dr. S.S.Mallick, Department of Mechanical Engineering, TU

### Committee Members

Prof. S. K. Mohapatra, MED	Dr. S. S. Mallick, MED	Prof. Bonamali Pal, SCBC	Dr. Somen Basu, SCBC
Dr. Satish Kumar, MED	Dr. Neeraj Kumar, MED	Mr. Kundan Lal, MED	Mr. Gautam Setia, MED
Mr. Atul Sharma, MED	Ms. Anu Mittal, MED	Mr Pushp Raj, Purchase	

MED : Mechanical Engineering Department, TU  
SCBC : School of Chemistry and Bio-Chemistry, TU

## WELCOME TO PGBSIA2016 (JAIPUR, INDIA)

*Overwhelming response and support of the particle technology community for the inaugural PGBSIA 2013 have inspired us to organize PGBSIA 2016. This conference aims to integrate the scientific and industry communities. Papers will be peer-reviewed and sent to Particulate Science and Technology (International Journal, Taylor & Francis). Considering the timing and place of the event (rapidly growing economy), PGBSIA 2016 provides unique opportunities for academic, research and business collaborations. On behalf of the organizing committee, I look forward to welcome you in Jaipur, India in December 2016 for this exciting event.*

*Dr. S.S.Mallick (PGBSIA2016 Organizing Secretary)*

## CONTACT

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[www.pghbsia.com](http://www.pghbsia.com)