CONFERENCE PROGRAM

Second International Conference on Powder, Granule and Bulk Solids: Innovations and Applications

December 1-3, 2016
Hotel Ramada, Jaipur (Rajasthan), India

Organized by Department of Mechanical Engineering, Thapar University

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The Wolfson Centre for Bulk Solids Handling Technology
10.45-11.10 Modelling solids friction factor and minimum transport boundaries with temperature:
- numerical simulations and striping by Stefan Luding, ETH Zurich, Switzerland

11.10-11.35 A case study on implication of stipulation by ministry of environment and forest (MOEF) on ash conveying system in coal fired power plants in India, Debashish De, Development Consultant Private Limited, India

12.00-12.25 Review of impact erosion of pneumatic transportation pipelines, Mahesh Edirweera, Chandana Ratnayake and Jana Chladek, University College of Southeast Norway

12.25-12.35 LUNCH (OUTSIDE JUPITER HALL) + EXHIBITION

14.00-14.35 Advanced discrete simulation for industrial applications, Mikio Sakai, The University of Tokyo, Japan

14.35-15.05 SESSION A4 (JUPITER): FLOW PROPERTIES HANDLING

15.05-15.30 An experimental and theoretical investigation of TiO2 powders flow properties changes with temperature, Domenico Macri, Massimo Poletto, Diego Barletta, Stephen Scutcliffe, Paola Letteri, University College London, UK, University degli Studi di Salerno Italy, Hunstman Pigments and Additives, UK

15.30-15.55 Numerical simulation and experimental validation of yield for cohesive dry powder, H. Shi, A. Singh, S. Ludwig and V. Magnanimo, University of Twente, The Netherlands, City University of New York, USA

15.55-16.20 Shaping segregating: multi-scale modeling of segregation in industrial scenarios, Marnix van Schrojenstein Lantman, Anthony R. Thornton, Deepak A. Tumanski, Kaspar van der Vaart and Thomas Weinert, University of Twente, the Netherlands, Ecole Polytechnique Federale de Lausanne, Switzerland

16.20-16.45 Flowability of ceramic powders in the sintering process, Daniele Sofia, Diego Barletta, Massimo Poletto, Università Degli Studi di Salerno, Fisciano (SA), Italy

16.45-17.10 A multi-method approach to quality control illustrated on the industrial powder coating process, Elke Riedl, Denis Schütz, Anton Paar GmbH, Graz, Austria

19.30-23.00 CONFERENCE DINNER AT CHOWKHI DHANI RESORT (WITH A TRIP TO THE CULTURAL SHOW AT CHOWKHI DHANI VILLAGE)
SESSION AS (JUPITER): FLOW PROPERTIES OF BULK SOLIDS

Session Chair: Rajesh Dave, Co-Chair: Baldeep Kaur

10.10-10.35
Effect of gum arabic, bamboo fiber and cactus cladode mucilage on physicochemical and antioxidant properties of orange pulp powder, Consuelo Pacheco, Juliana Piña, Mónica Nazareno, Eva García-Martínez, Gemma Moraga and Nuria Martínez-Navarrete, Planta Piloto de Ingeniería Química (UNS – CONICET), Centro de Investigación y Transferencia de Santiago del Estero (UNSE – CONICET), Argentina, Universitat Politècnica de València, Spain

A parametric study on response of granular bed to vertical sinusoidal excitations, Anand Moorthy, Shankar Krishnapillai, Ratna Kumar Annabattula, Department of Mechanical Engineering, Indian Institute of Technology, Madras, Chennai, India

10.35-11.00
Comparison of mechanical properties of ground corn stover, switchgrass, and willow and their pellet qualities, Apoorva Karamchandani, Hojaye Yi, and Virendra M. Puri, the Pennsylvania State University, USA

Multi-objective optimization of gas cycling using mathematical models and response surface methodology, Lakhbir Singh Brar, B.I.T. Mesra, Ranchi, India

11.00-11.25
Flow improvement of fine propellant powder using nano additives, Kritika Dixit, Sophia Varghese, Ashish Jaipuriyar, Chaitanya Ghoroi, IIT Gandhinagar, India

Aging in velocity autocorrelations in granular gas of viscoelastic particles in 2-dimensions, Shikha Kumari and Syed Rashid Ahmad, Jamia Millia Islamia, New Delhi, India

11.25-11.50
Granule breakage in a controlled shear field, Narendra Akiti, Karen Haggood and Devang Khakhar, IIT Bombay, India, Monash University, Melbourne, Australia

Modelling granular systems with pebble plasticity using discrete element method, Raghamur Kirthik Desu and Ratna Kumar Annabattula, IIT Madras, India

11.50-12.15
Fluidized bed rheology for granular media, Denis Schütz, Elke Riedl, Anton Paar GmbH, Graz, Austria

Quantitative DEM validation of flow of pellets in a flat bottom silo, Veer Pratap R Kasina, Jin Y Ooi, Jian Fei Chen, Hans Schmieder, Dr. Reddys Laboratories Limited, India, University of Edinburgh, UK, Queens University, UK, Zeppelin Systems, Germany

12.15-13.15
LUNCH (OUTSIDE JUPITER HALL) + EXHIBITION

SESSION 6K (JUPITER): KEYNOTE LECTURE SERIES, Session Chair: Giuseppe Bonifazi, Co-Chair: Tanushree Basu

13.15-13.50
Development and application of bulk material handling technology in Asia-pacific region, Renhu Pan, Fujian Longking Co., Ltd., China

13.50-14.25
A dilution driven vortex in dense granular materials and its effect on rheometry, Prabhu Nott, Indian Institute of Science, Bangalore, India

14.25-14.55
HIGH TEA (OUTSIDE JUPITER HALL)

SESSION A6 (JUPITER): BULK SOLIDS HANDLING

Session Chair: Renhu Pan, Co-Chair: Kapil Sharma

14.55-15.20
The effect of converging vortex finders on the performance of cyclone separators, V. Kumar, L. S. Brar, K. Jha, ISM, Dhanbad, B.I.T, Mesra, India

Population balance modeling of emulsification process using high pressure homogenizer, Sagarkar Talli, A. Naga Divya Sree, Bithunshai U.B and Vikranth Kumar Surisani, BITS Pilani, Hyderabad, India

15.20-15.45
Initial acceleration pressure drop in dilute phase pneumatic conveying system, Naveen Mani Tripathi, Avi Levy and Haim Kalman, Ben-Gurion University of the Negev, Israel

Heavy metal accumulation from fly ash by algae for its potential utilization, Rajinder Kaur and Dinesh Goyal, Beant College of Engineering & Technology, Punjab, India, Thapar University, India

15.45-16.10
Modeling and analysis of solids friction factor for fluidized dense phase conveying through long pipelines, Shijo J. S., Niranjana Behera, IIT Delhi, Vellore

Mixing study of binary cohesive fine powders in a 2D rotary drum, Abhishek Sancheti, Sanjay Saroj, Neetu Varun, Chinthay Ghoroi, IIT Gandhinagar, India

16.10-16.35
PSD analysis of pressure drop fluctuation in dilute phase pneumatic conveying system, Ajay B. Makwana, Atharva Patankar, Sagar Patil and Manasweta Bose, IIT Bombay, India

Hydrocyclone classifier to beneﬁciate kaolin clay, Vivek Velturi and Giri Dhawan, B. Pitchumani, Vikram Golchha, Golchha Global Solutions, Jaipur, IIT Delhi, Associated Soapsnake, Jaipur, India

16.35-17.00
Latest developments in modelling ﬂuidized dense phase of pneumatic conveying of ﬁne powders, Part 2, Amit Kumar and Atul Sharma, Thapar University, India

Granular segregation in a quasi 2D system during heap formation, Sandeep H. Gharat, Gharda Institute of Technology Lavel, Ratnagiri, India

Modelling cohesion in ﬁne powders by using powder physical properties, Lokesh Rohilla, Gautam Setia and S.S. Mallick, Thapar University, Patiala, India

17.00-17.20
CONFERENCE CLOSURE (JUPITER HALL): Memento distribution, best paper award, future event announcements and closing remarks (S.S.Mallick)