



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



Mercury Lab

Personalised solutions for particulate systems



**Platinum Sponsor
MercuryLab B.V.**

**Gold Sponsor
Fujian Longking Co.
Ltd.**



**Silver Sponsor
Bulk Materials
Engineers Australia**



**MECGALE
PNEUMATICS PVT LTD**

**Silver Sponsor
Mecgale
Pneumatics Pvt.
Ltd.**



UNIVERSITY of GREENWICH | The Wolfson Centre
for Bulk Solids
Handling Technology

**Bronze Sponsor
The Wolfson Centre
for Bulk Solids
Handling Technology**

Second International Conference on Powder, Granule and Bulk Solids: Innovations and Applications (PGBSIA 2016), Hotel Ramada, Jaipur, India, December 1-3, 2016

DAY 0: 30.11.2016

19.00-21.30 PRE-CONFERENCE NETWORKING DINNER AND REGISTRATION (GALAXY HALL)

DAY 1: 1.12.2016

8.00-8.30	REGISTRATION (OUTSIDE JUPITER HALL)		
8.30-8.50	WELCOME ADDRESS (JUPITER HALL): S.S.Mallick and Thapar University Officials		
	SESSION 1K (JUPITER): KEYNOTE LECTURE SERIES, Session Chair: Haim Kalman, Co-Chair: Baldeep Kaur		
8.50-9.25	<i>Dust, the final frontier</i> , Peter Wypych, University of Wollongong, Australia		
9.25-10.00	<i>From discrete particle simulations towards continuum theory and applications in transport and segregation</i> , Stefan Luding, University of Twente, The Netherlands		
10.00-10.35	<i>Particle engineering for pharmaceutical applications</i> , Rajesh Dave, New Jersey Institute of Technology, USA		
10.35-11.05	HIGH TEA (OUTSIDE JUPITER HALL)		
	SESSION A1 (JUPITER): SIMULATION OF PARTICLE PROCESSES Session Chair: Stefan Luding, Co-Chair: Baldeep Kaur	SESSION B1 (MARS): BULK SOLIDS HANDLING Session Chair: C. R. K. Windows-Yule, Co-Chair: Apoorva Singh	SESSION C1 (NEPTUNE): FLOW PROPERTIES OF BULK SOLIDS Session Chair: Mike Bradley, Co-Chair: Atul Sharma
11.05-11.30	<i>Numerical investigation of particle velocity and its influence on modelling pressure drop during fluidized dense phase gas-solids transport of fine powders</i> , Baldeep Kaur, Anu Mittal, Peter Wypych, S.S.Mallick and Soumendu Jana, Thapar University, India, University of Wollongong, Australia	<i>Dust explosion modelling: status and prospects</i> , Trygve Skjold, Gexcon AS, Fantoftvegen Bergen, Norway	<i>Product development and process optimization strategies for encapsulation applications - a comparative case study using different formulation and processing options</i> , Michael Jacob, Melanie Guttzeit, Katja Oppermann, Arne Teiwes, Glatt Ingenieurtechnik GmbH, Germany
11.30-11.55	<i>Fast, flexible particles simulations: An introduction to MercuryDPM</i> , Deepak R. Tunuguntla, Thomas Weinhart and Anthony R. Thornton, University of Twente, The Netherlands	<i>Selecting optimum number of drives and dynamic analysis for a long distance conveyor</i> , Niteesh Dua and D.S. Mallick, Thapar University, India, Development Consultants Private Limited, Kolkata, India	<i>Vane tester for examining granular biomass</i> , Mateusz Stasiak and Marek Molenda, Institute of Agrophysics, Polish Academy of Sciences, Poland
11.55-12.20	<i>Hybrid Eulerian/Lagrangian simulation of agglomeration in gas-solid cyclones</i> , Stefan Pirker, Stefan Puttinger and Simon Schneiderbauer, Johannes Kepler University, Austria	<i>Experimental study on particle velocity in horizontal dilute phase pneumatic conveying systems</i> , Nir Santo, Dimitry Portnikov, Itamar Eshel, Raviv Taranto and Haim Kalman, Ben-Gurion University of the Negev, Israel	<i>Powder flow characterization at low consolidation: modeling and experimental values of torque estimation</i> , Hamid Salehi, Denis Schütz, Richard Romire, Diego Barletta, Massimo Poletto, University of Salerno, Italy, Anton Paar GmbH, Austria
12.20-12.45	<i>Sensitivity of numerical parameters on DEM predictions of sediment transport</i> , H. A. Elghannay and Danesh K. Tafti, Virginia Tech University, USA	<i>A novel one-dimensional particle breakage algorithm for conveying systems</i> , Avi Uzi, Haim Kalman and Avi Levy, Ben-Gurion University of the Negev, Israel	<i>Gravity reclaim stockpiles: what you need to know</i> , Francisco Cabrejos Marín, Jenike and Johanson, Chile
12.45-13.10	<i>Numerical and experimental study of compression strength of pharmaceutical granules</i> , Zdeněk Grof, Marek Schöngut, David Smrčka and František Štěpánek, Veronika Lesakova, University of Chemistry and Technology, Czech Republic	<i>A feasibility study of online monitoring techniques for scale deposition thickness in pneumatic conveying pipelines</i> , Ingrid B. Haugland, Jana Chladek and Maths Halstensen, University College of Southeast Norway, Norway	<i>Compressibility of breakable materials</i> , V. Penkavova, L. Kulaviak, M. C. Ruzicka, J. Havlica, M. Puncochar, M. Schongut, Z.Grof, F. Stepanek, P. Zamostny, Institute of Chemical Process Fundamentals of CAS, University of Chemistry and Technology, Prague, Czech Republic
13.10-14.10	LUNCH (OUTSIDE JUPITER HALL) + EXHIBITION		
	SESSION 2K (JUPITER): KEYNOTE LECTURE SERIES, Session Chair: Peter Wypych, Co-Chair: Baldeep Kaur		
14.10 -14.45	<i>Pneumatic and hydraulic conveying – what do they have in common?</i> Haim Kalman, Ben Gurion University, Israel		
14.45-15.20	<i>Discrete element modeling and the technology adoption curve for computer-aided engineering software</i> , Richard LaRoche, DEM Solutions Ltd, UK		
15.20-15.55	<i>Identification of particulate metal oxides using energy-resolved distribution of electron traps measured by reversed double-beam photoacoustic spectroscopy</i> , Bunsho Ohtani, Hokkaido University, Japan		
15.55-16.25	HIGH TEA (OUTSIDE JUPITER HALL)		
	SESSION A2 (JUPITER): FLOW PROPERTIES OF BULK SOLIDS Session Chair: Rajesh Dave, Co-Chair: Anu Mittal	SESSION B2 (MARS): PARTICLE SYNTHESIS, CHARACTERIZATION & PROCESSING Session Chair: Bunsho Ohtani, Co-Chair: Tanushree Basu	SESSION C2 (NEPTUNE): SIMULATION OF PARTICLE PROCESSES Session Chair: Richard LaRoche, Co-Chair: Baldeep Kaur
16.25-16.50	<i>Bulk properties of the instant beverages powders as the function of quality of the powders</i> , Tomas Sverak, Ondrej Kristof, Pavel Bulejko, Pavel Kejik CsillaBogyava, Josef Kalivoda and Katerina Mayerova, Brno University of Technology, Brno, Czech Republic	<i>A study on the critical role of the stability ratio, aggregation constant and induced micro-convection on the overall thermal conductivity of nanofluids</i> , Lal Kundan, and S.S.Mallick, Thapar University, India	<i>Wave propagation in glass-rubber granular mixtures</i> , K. Taghizadeh, H. Steeb, V. Magnanimo and S. Luding, University of Twente, The Netherlands, Institute of Mechanics, University of Stuttgart, Germany
16.50-17.15	<i>On time scales and rheology of dry and wet granular materials</i> , Sudeshna Roy, Stefan Luding and Thomas Weinhart, University of Twente, The Netherlands	<i>Influence of nano and micron size additives towards stabilization of β-C₂S phase through solid state reaction</i> , Sanat Chandra Maiti, Chinmay Ghoroi, IIT Gandhinagar, India	<i>Coupling resolved and coarse grain DEM models</i> , Daniel Queteschiner, Thomas Lichtenegger, Simon Schneiderbauer and Stefan Pirker, Johannes Kepler University, Austria
17.15-17.40	<i>Characterization of pharmaceutical powders – static and dynamic flow properties</i> , Veera Pratap R. Kasina, Hussain Ali M, Sanjay R. Sharma, Ajinkya Bhasme, Ravichandra Palaparthi, Dr. Reddys Laboratories Limited, India	<i>Synthesis of Gold-DNA nanocomposites for highly sensitive magnesium ion detection</i> , Tanushree Basu and Bonamali Pal, School of Chemistry and Biochemistry, Thapar University, India	<i>From discrete particles to continuum fields</i> , Thomas Weinhart, D. R. Tunuguntla, A. R. Thornton, University of Twente, Netherlands
17.40-18.05	<i>Numerical study of powder compaction under monotonic and cyclic loading</i> , Olukayode I. Imole, Steph J. Bredenhann, Vanessa Magnanimo and Stefan Luding, University of Twente, The Netherlands, Delft University of Technology, Delft, The Netherlands	<i>Processing technologies for particulate lithium ion battery raw material</i> , Alexander Krauser and Steffen Sander, Hosokawa Alpine Aktiengesellschaft, Augsburg, Germany	<i>Probing the internal dynamics of rotated granular systems using positron emission particle tracking combined with DEM simulations</i> , C. R. K. Windows-Yule, B. J. Scheper, D. J. Parker and A. R. Thornton, N.Rivas, University of Twente, The Netherlands, University of Birmingham, UK
18.05-18.30	<i>Flow improvement of fine propellant powder using nano additives</i> , Kritika Dixit, Sophia Varghese, Ashish Jauhari, S.C. Bhattacharyaa, Chinmay Ghoroi, IIT Gandhinagar, India	<i>Characterization of non-spherical nanoparticles dispersed in aerosol and colloidal systems</i> , Thaseem Thajudeen, Rubitha Srikantharajah, Christian Lübbert, Johannes Walter and Wolfgang Peukert, Friedrich Alexander University, Germany	<i>Recurrence CFD – A novel technique to speed up simulations of multiphase flows covering multiple time scales</i> , Thomas Lichtenegger and Stefan Pirker, Johannes Kepler University, Austria
		SESSION W1: INDUSTRY ORIENTED WORKSHOP	
18.30-20.30		<i>Latest developments in handling, conveying and dust control technology</i> , Peter Wypych, University of Wollongong, Australia	

Second International Conference on Powder, Granule and Bulk Solids: Innovations and Applications (PGBSIA 2016), Hotel Ramada, Jaipur, India, December 1-3, 2016

DAY 2: 2.12.2016

JUPITER HALL

8.25-8.30	ANNOUNCEMENTS (JUPITER HALL): S.S.Mallick		
	SESSION 3K (JUPITER): KEYNOTE LECTURE SERIES, Session Chair: Stefan Luding, Co-Chair: Atul Sharma		
8.30-9.05	Pneumatic conveying: where are we now and where are we going? Mike Bradley, University of Greenwich, UK		
9.05-9.40	Powder technologies for 3D printing, Wolfgang Peukert, University of Erlangen, Germany		
9.40-10.15	Address by the platinum sponsor: Personalised solutions for particulate systems, MercuryLab		
10.15-10.45	HIGH TEA (OUTSIDE JUPITER HALL)		
	SESSION A3 (JUPITER): BULK SOLIDS HANDLING Session Chair: S.S.Mallick, Co-Chair: Anu Mittal	SESSION B3 (MARS): SIMULATION OF PARTICLE PROCESSES Session Chair: Richard LaRoche, Co-Chair: Atul Sharma	SESSION C3 (NEPTUNE): FLUIDIZATION Session Chair: Prabhu Nott, Co-Chair: Kapil Sharma
10.45-11.10	An investigation into pressure fluctuations for fluidized dense-phase pneumatic conveying of powders, Anu Mittal and S.S.Mallick, Thapar University, India	Numerical evaluation on inertial migration and ordering of rigid particles in microchannels, Hirotake Udono and Mikio Sakai, University of Tokyo, Japan	Evolution of contact anisotropy in a granular assembly, Akhil Vijayan Panicker, Ratna Kumar Annabattula, IIT Madras, India
11.10-11.35	A case study on implication of stipulation by ministry of environment and forest (MOEF) on selection of ash conveying system in coal fired power plants in India, Debashish De, Development Consultant Private Limited, India	Analyses of dust emission in bulk material handling apparatuses by DEM-CFD: basics, approaches and prospects, Christoph Grübler, Franz Kessler, Michael Prenner and Thomas Sommer, Montanuniversität Leoben, Austria	Experimental investigation on drying characteristics of Geldart group B and group D particles in a fluidized bed dryer, D Yogendrasasidhar, G Srinivas and Y Pydi Setty, NIT Warangal
11.35-12.00	The effect of collision angle on the particle breakage under impact loads, Dmitry Portnikov, Haim Kalman, Roman Peisakhov, Gabriel Ofek Gabriel, Ben-Gurion University of the Negev, Israel	Three-dimensional Lagrangian simulation for a solid-liquid flow in a chemical engineering process, Kazuya Takabatake, Mikio Sakai, Midori Uchiyama, Hiroaki Fujiwara, The University of Tokyo, Japan, IHI Corporation, Japan	Drying of coriander seeds in a wall heated fluidized bed dryer, M Vamshi Krishna, G Srinivas and Y Pydi Setty, NIT Warangal, India
12.00-12.25	Review of impact erosion of pneumatic transportation pipelines, Mahesh Ediriweera, Chandana Ratnayake and Jana Chladek, University College of Southeast Norway	Studying cohesive powder flow using discrete element method: an investigation into contact micro-mechanics and link to bulk behaviour, Rahul Mohanty, Prashant Gupta, Jin Y. Ooi, Luis Martin de Juan, Tomaž M. Zorec, University of Edinburgh, Scotland, UK, University of Ljubljana, Slovenia	Computational fluid dynamic investigation on transition of Geldart powders from Group A to B, Priya C. Sande and Saumi Ray, BITS, Pilani, India
12.25-13.25	LUNCH (OUTSIDE JUPITER HALL) + EXHIBITION		
	SESSION 4K (JUPITER): KEYNOTE LECTURE SERIES, Session Chair: Wolfgang Peukert, Co-Chair: Anu Mittal		
13.25-14.00	Application of mesoscale discrete element method for bulk solids handling processes, Jin Y. Ooi, University of Edinburgh, UK		
14.00-14.35	Advanced discrete element simulation for industrial applications, Mikio Sakai, The University of Tokyo, Japan		
14.35-15.05	HIGH TEA (OUTSIDE JUPITER HALL)		
	SESSION A4 (JUPITER): FLOW PROPERTIES OF BULK SOLIDS Session Chair: Jin Y Ooi, Co-Chair: Baldeep Kaur	SESSION B4 (MARS): PARTICLE SYNTHESIS, CHARACTERIZATION & PROCESSING Session Chair: Bunsho Ohtani, Co-Chair: Tanushree Basu	SESSION C4 (NEPTUNE): BULK SOLIDS HANDLING Session Chair: Haim Kalman, Co-Chair: Anu Mittal
15.05-15.30	An experimental and theoretical investigation of TiO₂ powders flow properties changes with temperature, Domenico Macri, Massimo Poletto, Diego Barletta, Stephen Sutcliffe, Paola Lettieri, University College London, UK, Università degli Studi di Salerno Italy, Huntsman Pigments and Additives, UK	Improving the wettability of ibuprofen drug using co-milling technique, Sophia Varghese and Chinmay Ghoroi, IIT Gandhinagar, India.	Modelling solids friction factor and minimum transport boundaries for dense-phase pneumatic conveying of powders, S.S.Mallick, Thapar University, India
15.30-15.55	Numerical simulation and experimental validation of yielding for cohesive dry powder, H. Shi, A. Singh, S. Luding and V. Magnanimo, University of Twente, The Netherlands, City College of New York, USA	Removal of Pb²⁺ & Cd²⁺ by Metal Oxide Monoliths with Tuneable Mesopore Size: Kinetic and Equilibrium Modelling, Manisha Sharma, Soumen Basu, Thapar University, India	One-dimensional erosion modeling for conveying pipelines, Avi Uzi, Yaron Ben Ami and Avi Levy, Ben-Gurion University of the Negev, Israel
15.55-16.20	Shaping segregating: multi-scale modeling of segregation in industrial scenarios, Marnix van Schroyen Lantman, Anthony R. Thornton, Deepak R. Tunuguntla, Kasper van der Vaart and Thomas Weinhart, University of Twente, The Netherlands, Ecole Polytechnique Federale de Lausanne, Switzerland	Influence of scavenging and dust cake filtration in the collection of nanoparticles from flue gases, Thaseem Thajudeen, Maximilian Domaschke, Henning Förster, and Wolfgang Peukert, Friedrich Alexander University, Erlangen, Germany	A study of flow and blending in a multi-flow silo blender using particle image velocimetry and discrete element method, Veera Pratap R Kasina, Jin Y Ooi, Jian-Fei Chen and Hans Schnieder, Dr. Reddys Laboratories Limited, Hyderabad, India, University of Edinburgh, UK, Zeppelin Systems, Germany
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	Polymorphism, particle formation pathways and long term colloidal stability of curcumin particles precipitated by liquid antisolvent technique, Sameer V. Dalvi, IIT Gandhinagar, India	Dry beneficiation of mineral in cyclonic classifier, Amit Sharma, B. Pitchumani, Vikram Golcha, Golcha Global Solutions, Jaipur, IIT Delhi, Associated Soapstone, Jaipur, India
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	Influence of nanoscale roughness on surface energy and wettability of surface modified glass beads, Deepa Dixit and Chinmay Ghoroi, IIT Gandhinagar, India	Development of High Concentration Slurry Disposal System (HCSD) in power plant, Sunil Kumar Ghosh, Development Consultants Private Ltd, Kolkata, India
19.30-23.00	CONFERENCE DINNER AT CHOWKHI DHANI RESORT (WITH A TRIP TO THE CULTURAL SHOW AT CHOWKHI DHANI VILLAGE) Bus pick up at 18.45 from selected points/hotels		

Second International Conference on Powder, Granule and Bulk Solids: Innovations and Applications (PGBSIA 2016), Hotel Ramada, Jaipur, India, December 1-3, 2016

DAY 3: 3.12.2016

JUPITER HALL

8.25-8.30	ANNOUNCEMENTS (JUPITER HALL): S.S.Mallick		
	SESSION 5K (JUPITER): KEYNOTE LECTURE SERIES, Session Chair: Mike Bradley, Co-Chair: Atul Sharma		
8.30-9.05	<i>Multiscale modelling of the flow of bulk solids down and inclined chute,</i> Anthony R. Thornton, University of Twente, The Netherlands		
9.05-9.40	<i>Development and application of bulk material handling technology in Asia-pacific region,</i> Renhu Pan, Fujian Longking. Co.Ltd., China		
9:40-10.10	HIGH TEA (OUTSIDE JUPITER HALL)		
	SESSION A5 (JUPITER): FLOW PROPERTIES OF BULK SOLIDS Session Chair: Rajesh Dave, Co-Chair: Baldeep Kaur	SESSION B5 (MARS): SIMULATION OF PARTICLE PROCESSES Session Chair: Mikio Sakai, Co-Chair: Apoorva Singh	SESSION C5 (NEPTUNE): FLUIDIZATION Session Chair: S.K.Mohapatra, Co-Chair: Tanushree Basu
10.10-10.35	<i>Effect of gum arabic, bamboo fiber and cactus cladode mucilage on physicochemical and antioxidant properties of orange pulp powder,</i> Consuelo Pacheco, Juliana Piña, Mónica Nazareno, Eva García-Martínez, Gemma Moragaand 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	<i>A parametric study on response of granular bed to vertical sinusoidal excitations,</i> Anand Moorthy, Shankar Krishnapillai, Ratna Kumar Annabattula, Department of Mechanical Engineering, Indian Institute of Technology, Madras, Chennai, India	<i>Parametric study of specularity coefficient and restitution coefficient on the hydrodynamics of bubbling fluidized bed,</i> Bhaskara Rao Bhogadiand C. Veeramani, IIT Roorkee, India
10.35-11.00	<i>Comparison of mechanical properties of ground corn stover, switchgrass, and willow and their pellet qualities,</i> Apoorva Karamchandani, Hojae Yi, and Virendra M. Puri, the Pennsylvania State University, USA	<i>Multi-objective optimization of gas cyclone using mathematical models and response surface methodology,</i> Lakhbir Singh Brar, B.I.T. Mesra, Ranchi, India	<i>Dynamic drying characteristics for uniform and binary solid mixtures in a continuous wall heated fluidized bed dryer,</i> G Srinivas and Y Pydi Setty, NIT Warangal, India
11.00-11.25	<i>Merging fluid and solid granular behavior,</i> D. Vescovi and S. Luding, Politecnico di Milano, Italy, University of Twente, The Netherlands	<i>Aging in velocity autocorrelations in granular gas of viscoelastic particles in 2-dimensions,</i> Shikha Kumari and Syed Rashid Ahmad, Jamia Millia Islamia, New Delhi, India	<i>An analytical and DEM study on the effective thermal conductivity of a packed granular bed,</i> Joel Martis and Ratna Kumar Annabattula, IIT Madras, India
11.25-11.50	<i>Granule breakage in a controlled shear field,</i> Narendra Akiti, Karen Hapgood and Devang Khakhar, IIT Bombay, India, Monash University, Melbourne, Australia	<i>Modelling granular systems with pebble plasticity using discrete element method,</i> Raghuram Karthik Desu and Ratna Kumar Annabattula, IIT Madras, India	<i>Size segregation of binary granular mixtures flowing over inclined plane,</i> Anurag Tripathi and Mohit Nema, IIT Kanpur, India
11.50-12.15	<i>Fluidized bed rheology for granular media,</i> Denis Schütz, Elke Riedl, Anton Paar GmbH, Graz, Austria	<i>Quantitative DEM validation of flow of pellets in a flat bottom silo,</i> Veera Pratap R Kasina, Jin Y Ooi, Jian-Fei Chen, Hans Schnieder, Dr. Reddys Laboratories Limited, India, University of Edinburgh, UK, Queens University, UK, Zeppelin Systems, Germany	<i>Modeling, simulation and experimental validation of wet granulation of API in a fluidized bed granulator,</i> Deepika Jonnalagada, Aishwarya Nair, Vikrant Kumar Surasani, BITS Pilani, Hyderabad, India
12.15-13.15	LUNCH (OUTSIDE JUPITER HALL)+ EXHIBITION		
	SESSION 6K (JUPITER): KEYNOTE LECTURE SERIES, Session Chair: Mikio Sakai, Co-Chair: Baldeep Kaur		
13.15-13.50	<i>Morphological effects of different bimetallic nanostructures,</i> Bonamali Pal, Thapar University, India		
13.50-14.25	<i>A dilation driven vortex in dense granular materials and its effect on rheometry,</i> 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: Mikio Sakai, Co-Chair: Kapil Sharma	SESSION B6 (MARS): PARTICLE SYNTHESIS, CHARACTERIZATION & PROCESSING Session Chair: Bonamali Pal, Co-Chair: Kundan Lal	SESSION C6 (NEPTUNE): FLOW PROPERTIES OF BULK SOLIDS Session Chair: Wolfgang Peukert, Co-Chair: Baldeep Kaur
14.55-15.20	<i>The effect of converging vortex finders on the performance of cyclone separators,</i> V. Kumar, L. S. Brar, K. Jha, ISM, Dhanbad, B.I.T, Mesra, India	<i>Heavy metal accumulation from fly ash by algae for its potential utilization,</i> Rajinder Kaur and Dinesh Goyal, Beant College of Engineering & Technology, Punjab, India, Thapar University, India	<i>Experimental and simulation of torque values of large and small particle size powders in Anton Paar Powder Cell using a commercial DEM simulation Software,</i> Hamid Salehi, Daniele Sofia, Haifeng Lu, Denis Schutz, Diego Barletta, Massimo Poletto, University of Salerno, Italy, Institute of Clean Coal Technology, East China University of Science and Technology, Shanghai China, Development Rheometry, Anton Paar GmbH, Austria
15.20-15.45	<i>Initial acceleration pressure drop in dilute phase pneumatic conveying system,</i> Naveen Mani Tripathi, Avi Levy and Haim Kalman, Ben-Gurion University of the Negev, Israel	<i>Population balance modeling of emulsification process using high pressure homogenizer,</i> Sagarika Talla, A. Naga Divya Sree, Bithunshal U.B and Vikranth Kumar Surasani, BITS Pilani, Hyderabad, India	<i>Breaking of anisotropic rod-shaped particles,</i> V. Penkavova, L. Kulaviak, M.C. Ruzicka, M. Puncochar, P. Zamosny, Institute of Chemical Process Fundamentals of CAS, University of Chemistry and Technology, Prague, Czech Republic
15.45-16.10	<i>Modeling and analysis of solids friction factor for fluidized dense phase conveying through long pipelines,</i> Shijo J. S., Niranjana Behera, VIT University, Vellore	<i>Mixing study of binary cohesive fine powders in a 2D rotary drum,</i> Abhishek Sancheti, Sanjay Saroj, Neetu Varun, Chinmay Ghoroi, IIT Gandhinagar, India	<i>Pressure and mass flow rate in silo discharge,</i> Ashish Bhateja and Devang V. Khakhar, IIT Bombay, India
16.10-16.35	<i>PSD analysis of pressure drop fluctuation in dilute phase pneumatic conveying system,</i> Ajay B. Makwana, Atharva Patankar, Sagar Patil and Manaswita Bose, IIT Bombay, India	<i>Hydrocyclone classifier to beneficiate kaolin clay,</i> Vivek Velturi and Giri Dharan, B. Pitchumani, Vikram Golcha, Golcha Global Solutions, Jaipur, IIT Delhi, Associated Soapstone, Jaipur, India	<i>Investigations at industrial scale on granule and tablet attributes in high shear rapid mixer granulator,</i> Suresh P, Vikrant K. Surasani, Sreedhar I, Operational Excellence, Granules India Ltd, Hyderabad, India, BITS Pilani, Hyderabad, India
16.35-17:00	<i>In investigation into modelling pressure drop through bends for fluidized dense phase of pneumatic conveying of fine powders,</i> Amit Kumar, Atul Sharma and S.S.Mallick, Thapar University, India	<i>Granular segregation in a quasi 2D System during heap formation,</i> Sandip H. Gharat, Gharda Institute of Technology Lavel, Ratnagiri, India	<i>Modelling cohesion in fine powders by using powder physical properties,</i> Lokesh Rohilla, Gautam Setia and S.S. Mallick, Thapar University, Patiala, India
17.00-17.20	CONFERENCE CLOSURE (JUPITER HALL): Memento distribution, future event announcements and closing remarks (S.S.Mallick)		