



**International Conference on
Powder, Granule and Bulk Solids: Innovations
and Applications (PGBSIA 2013)**
Thapar University, Patiala, India, November 28-30, 2013

CONFERENCE PROGRAM

For participation, sponsorship and exhibition queries, please contact
the conference organizing secretary Dr.S.S.Mallick:
ssmallick@thapar.edu

www.pgbsia2013.com



भारत सरकार
विज्ञान और प्रौद्योगिकी मंत्रालय
विज्ञान और प्रौद्योगिकी विभाग
GOVERNMENT OF INDIA
Ministry of Science and Technology
Department of Science and Technology
Technology Bhavan, New Mehrauli Road
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Mecgale Pneumatics Pvt. Ltd., Nagpur



National Project Implementation Unit



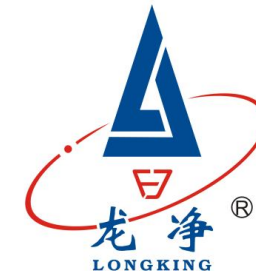
Development Consultants Pvt. Ltd., Kolkata



National Thermal Power Corporation Limited



Larsen and Toubro (L&T), India



Fujian Longking Co. Ltd., China



Bulk Materials Engineers Australia



The Powder/Bulk Portal, Germany

International Conference on Powder, Granule and Bulk Solids: Innovations and Applications (PGBSIA 2013)

Thapar University, Patiala, India, November 28-30, 2013

DAY 1: 2811.2013

| MAIN AUDITORIUM | | | |
|-----------------|---|---|--|
| 8.15-9.00 | Registration | | |
| 9.00-9.30 | Opening Ceremony | | |
| 9.30-10.10 | Lecture by Chief Guest | | |
| 10.10-10.50 | Advances in bulk material handling technology – linking research and industry Peter Wypych, University of Wollongong, Australia | | |
| 10.50-11.20 | High Tea (near to the main auditorium) | | |
| 11.20-12.00 | Some fundamental aspects of the rheology of dense granular materials Prabhu R. Nott, Indian Institute of Science, Bangalore, India | | |
| 12.00-12.40 | Control of dust in particulate process industries C.R. Copeland and S. Komar Kawatra, Michigan Technological University, USA | | |
| 12.40-13.40 | Lunch (near to the main auditorium) | | |
| | TAN BUILDING (ROOM-A): Bulk Solids Handling and Processing Session Chair: | TAN BUILDING (ROOM-B): Particle Synthesis, Properties and Characterization Session Chair: | TAN BUILDING (ROOM-C): Fluidization and Granular Flow Session Chair: |
| 13.40-14.00 | An investigation into friction forces of particulate plugs moving in vertical and horizontal pipes Semion Shaul and Haim Kalman, Ben-Gurion University of the Negev, Israel | IR spectrum of the wet very fine particulate material Tomas Sverak, Christopher G. J. Baker and Katerina Sikorova, Brno University of Technology, Czech Republic | The porosity distribution in monodisperse and polydisperse fixed beds and its impact on the fluid flow Sebastian Schulze, Petr A. Nikrityuk, Bernd Meyer, Institute of Energy Process Engineering and Chemical Engineering, Germany |
| 14.00-14.20 | Local mean velocity measurement of pneumatically conveyed particles using electrostatic sensor arrays and cross-correlation method Shengnan Wang, Chuanlong Xu, Shimin Wang and Yuezhu Wu, Southeast University, Nanjing University, Nanjing, China | Study of wettability and surface energy characteristics of nano-coated pharmaceutical excipient powders Vikram Karde and Chinmay Ghoroi, Indian Institute of Technology, Gandhinagar, India | Material Behaviour of Spherical Elastic-Plastic Granules at Diametrical Compression Alexander Russell, Peter Müller and Jürgen Tomas, Otto von Guericke University of Magdeburg, Germany |
| 14.20-14.40 | A comparative study on gravity-induced flow and forced flow of pulverized coal Haifeng Lu, Xiaolei Guo, Fuyu Wu, Xiaolin Sun, Kai Liu and Xin Gong, Shanghai Engineering Research Centre of Coal Gasification, Institute of Clean Coal Technology, East China University of Science and Technology, China | A Scientific approach to evaluate normal class room chalk and imported dustless chalk: an application of instrumentation and control engineering Manish Thakker, Dinesh O.Shah, Premal Shukla, Dharmasinh Desai University, India, University of Florida, USA | Droplet spreading on micro-patterned and micro-porous granular beds Ananth Praveen Kumar, Venkatanarayana Prasad S, Tamal Banerjee and Dipankar Bandyopadhyay, Indian Institute of Technology, Guwahati, India |
| 14.40-15.00 | Vibrological effects in rapid gravity flows of particulate solids on a rough chute Viktor N. Dolgunin, Andrew N. Kudy, Pavel A. Ivanov, Oleg O. Ivanov, Anatoliy M. Klimov and Vasiliy A. Pronin, Tambov State Technical University, Tambov, Russian Federation | Influence of pH on the stability of alumina and silica nanosuspensions produced by stirred media milling Chetan M. Patel, Mousumi Chakraborty and Z. V. P. Murthy, National Institute of Technology, Surat, India | Droplet spreading on micro-patterned and micro-porous granular beds Ananth Praveen Kumar, Venkatanarayana Prasad S, Tamal Banerjee and Dipankar Bandyopadhyay, Indian Institute of Technology, Guwahati, India |
| 15.00-15.20 | Combustible Dust Explosion Risk Management Felipe Ong, BS&B Safety Systems, Singapore | Control of nanoparticle agglomeration: role of synthesis technique & surfactant Chandni Khurana, O.P Pandey and Bhupendra Chudasama, Thapar University, India | Study of the dynamics of wet granulates under shear Jayati Sarkar and Dheerendra Dubey, Indian Institute of Technology, Delhi, India |
| 15.20-15.40 | Tea/Coffee Break + Exhibition | | |
| | TAN BUILDING (ROOM-A): Bulk Solids Handling and Processing | TAN BUILDING (ROOM-B): Particle Mechanics and Simulation Session Chair: | TAN BUILDING (ROOM-C): Applications of Particle Technology Session Chair: |
| 15.40-16.00 | WORKSHOP: Design, case-studies and troubleshooting of dense-phase pneumatic conveying systems Peter Wypych and S.S.Mallick, University of Wollongong, Australia and Thapar University, India | Discrete element modeling of grain flow pattern in continuous cross-flow grain dryer R. P. Kingsly Ambrose, Josephine M. Boac and Dirk Maier, Kansas State University, U.S.A | Improving lubrication of EDM oil at higher shear rate and temperature with carbon nanotubes Balram Tripathi and B. Ravindra and Y.M. Joshi, Indian Institute of Technology, Jodhpur, India |
| 16.00-16.20 | | Effect of elliptical particles orientation on macro and micromechanical behaviour during direct shear test Ali Asghar Mirghasemi and Morteza Naeij, University of Tehran, Iran | Powder mixed dielectric: an approach for improved process performance in EDM Ajay Batish, Anirban Bhattacharya and Naveen Kumar, Thapar University, India |
| 16.20-16.40 | | Modeling of nano-suspension droplet drying by CFD-DEM approach Y.Ostrovski, A. Levy, Ben-Gurion University of the Negev, Israel | A novel multipurpose powder/small particle composition for detection of fingerprints on a legion of crime scenes G.S. Sodhi and Jasjeet Kaur, S.G.T.B. Khalsa College, Shaheed Rajguru College of Applied Sciences for Women, Delhi, India |
| 16.40-17.00 | | A study of CFD modelling on variation of solid fraction in a batch fluidized bed G Srinivas and Y Pydi Setty, National Institute of Technology, Warangal, India | Oil agglomeration of coal fines in continuous Mode of Operation Ankush Gupta, H.V.C. Chary Guntupalli, M.G. Dastidar, Indian Institute of Technology, Delhi, Central Pollution Control Board, Delhi, India |
| 17.00-17.20 | | ASPEN Plus simulation and experimental study of different dry biomass solid waste gasification process using air-steam fluidized bed gasifier R. Tripathy and A. Sahoo, National Institute of Technology, Rourkela, India | A comparative study on physico-chemical characteristics and synthesis of typical nanofluids Ajay Vasishth, K.S.R. Murthy and Gagan Anand, University of Petroleum and Energy Studies, Dehradun, India |
| 17.20-17.30 | Tea/Coffee Break + Exhibition | | |
| | TAN BUILDING (ROOM-A): Bulk Solids Handling in Thermal Power Plants | TAN BUILDING (ROOM-D): Particle Synthesis, Characterization and Applications | |
| 17.30-18.00 | Practical issues of coal handling plant operation in a thermal power plants I.K.Rajdeva, National Thermal Power Corporation (NTPC), India | WORKSHOP: Application of powder technology to detection of fingerprints on crime scene evidence G.S. Sodhi, S.G.T.B. Khalsa College, Delhi, India | |
| 18.00-18.30 | Latest developments in ash handling systems in Indian power plants Tirupati Rao, Bharat Heavy Electricals Limited (BHEL), Bangalore, India | WORKSHOP: Nanoparticle synthesis, characterization, engineering applications: present challenges and future developments Coordinator: Dr. Bonamali Pal, Thapar University, India (in collaboration with subject experts) | |
| 18.00-19.00 | Advances in pneumatic, slurry conveying within industry Sumantra Sen, Tecpro Systems Limited, Kolkata, India | | |
| 19.00-20.00 | Welcome Reception (near to the main Auditorium) | | |

International Conference on Powder, Granule and Bulk Solids: Innovations and Applications (PGBSIA 2013)

Thapar University, Patiala, India, November 28-30, 2013

DAY 2: 29.11.2013

| MAIN AUDITORIUM | | | |
|-----------------|---|--|---|
| 8.15-8.20 | Announcements by Organizing Secretary | | |
| 8.20-9.00 | Recent advances in long distance belt conveyors Gabriel Lodewijks, Delft University of Technology, Netherlands | | |
| 9.00-9.40 | Using threshold velocities to determine flow regime maps for pneumatic conveying Haim Kalman, Ben-Gurion University of the Negev, Israel | | |
| 9.40-10.20 | Discrete element simulation of granular and multiphase flows Navid Mostoufi, University of Tehran, Iran | | |
| 10.20-10.40 | Tea/Coffee Break (near to the main auditorium) | | |
| 10.40-11.20 | Modelling milling processes Avy Levy, Ben-Gurion University of the Negev, Israel | | |
| 11.20-12.00 | Chemical imaging applied to particles and particles Systems characterization: fundamentals Giuseppe Bonifazi and Silvia Serranti, University of Rome, Italy | | |
| 12.00-12.40 | Nucleophile induced reversible dissolution of metal in aqueous surfactant solution: an astounding conclusion Tarasankar Pal, Indian Institute of Technology, Kharagpur, India | | |
| 12.40-13.40 | Lunch (near to the main auditorium) | | |
| | TAN BUILDING (ROOM-A): Bulk Solids Handling and Processing | TAN BUILDING (ROOM-B): Particle Synthesis, Properties and Characterization Session Chair: | TAN BUILDING (ROOM-C): Fluidization and Granular Flow Session Chair: |
| 13.40-14.00 | WORKSHOP: Conveyor dynamics Gabriel Lodewijks Delft University of Technology, Netherlands | Chemical imaging applied to particles and particles Systems characterization: case studies Giuseppe Bonifazi and Silvia Serranti, University of Rome, Italy useia Serranti, | Pressure drop and gas holdup studies in a spout-fluid bed Sujan Kumar B and Venu Vinod A, National Institute of Technology, Warangal, India |
| 14.00-14.20 | | Facile synthesis of anisotropic Au nanostructures by laser irradiation and study their optical and electro-kinetic properties Bonamali Pal and Rupinder Kaur, Thapar University, India | Effects of physical and mechanical properties on fluidized bed drying of rajma seed S. Jena and A. Sahoo, National Institute of Technology, Rourkela, India |
| 14.20-14.40 | | Magnetic properties of nano-structured Co and Ni synthesized by modified NaBH₄ reduction route Shankar B. Dalavi and Rabi N. Panda, BITS Pilani, Goa, India | Studies on parameter optimization for particle growth in a fluidized bed granulator: interval halving method Abanti Sahoo and Lisa Sahoo, National Institute of Technology, Rourkela, India |
| 14.40-15.00 | | Effect of processing variables on WC nanoparticles synthesized by solvothermal route Gourav Singla, K. Singh and O. P. Pandey, Thapar University, India | Segregation in horizontally shaken binary granular mixtures in Christmas-tree channel Ashish Bhateja, Ishan Sharma and Jayant K Singh, Indian Institute of Technology, Kanpur, India |
| 15.00-15.20 | | A simple aqueous solution based chemical methodology for preparation of mesoporous alumina: efficient adsorbent for defluoridation of water Desagani Dayananda, Venkateswara Rao Sarva, Sivankutty Vadakkethonippurathu Prasad, Jayaraman Arunachalam, Narendra Nath Ghosh, BITS Pilani, Goa, Bhabha Atomic Research Centre, Hyderabad, India, National Institute for Interdisciplinary Science and Technology (NIIST-CSIR), Kerala, India | Exhibition |
| 15.20-16.00 | Poster Presentation + Exhibition (TAN BUILDING) | | |
| | TAN BUILDING (ROOM-A): Bulk Solids Handling and Processing | TAN BUILDING (ROOM-B): Particle Mechanics and Simulation Session Chair: | TAN BUILDING (ROOM-C): Applications of Particle Technology Session Chair: |
| 16.00-16.20 | WORKSHOP: Bulk material storage facilities – design and management considerations Peter Wypych University of Wollongong, Australia | Effect of dune formation on pressure drop in horizontal pneumatic conveying system Ajay B. Makwana, Ramjee Korada and Manaswita Bose, Indian Institute of Technology, Bombay, India | Hot deformation behaviour of Aluminium composite produced through powder metallurgy route A. Rajeshkannan, University of the South Pacific, Laucala Campus, Fiji |
| 16.20-16.40 | | An investigation on flow pattern and velocity fields in a two dimensional flat bottomed rectangular silo with central and off-centre discharge Sanjay K. Sardar, Ritwik Maiti, Prasanta K. Das and Gargi Das, Indian Institute of Technology, Kharagpur, India | Effect of different ceramic particle on the sliding wear behavior of Al-Si alloy composites Ranvir Singh Panwar, Suresh Kumar, O.P. Pandey, Thapar University, India |
| 16.40-17.00 | | CFD simulation for hydrodynamic behaviour of fine particles in a fluidized bed P. Sahoo and A. Sahoo, National Institute of Technology, Rourkela, India | Sol gel derived hierarchially porous granular ceramics and aerogels for multifunctional applications Linsha Vazayal, K.V. Mahesh and S. Ananthakumar, National Institute for Interdisciplinary Science and Technology, Kerala, India |
| 17.00-17.20 | | CFD analysis of hydrodynamic behavior in FC crystallizer Anis Bakhsh and H. M. Jena, National Institute of Technology, Rourkela, India | AC and DC conductivity studies on lead free ceramics: Sr_{1-x}CaxBi₄Ti₄O₁₅(x=0, 0.2, 0.4, 0.6, 0.8) Gagan Anand, Ajay Vasishth, Piyush Kuchhal and P. Sarah, University of Petroleum and Energy Studies, Dehradun, India |
| 17.20-17.40 | | Numerical simulation of solid liquid two-phase flow behavior in centrifugal slurry Pump Satish Kumar, Thapar University, India | Development of closed-cell aluminum composite foams Suresh Kumar, Ranvir Singh Panwar and O. P. Pandey, Thapar University, India |
| 19.45-20.15 | Cultural Program (Main Auditorium) | | |
| 20.15-22.00 | Conference Dinner (Guest House Lawn) | | |

International Conference on Powder, Granule and Bulk Solids: Innovations and Applications (PGBSIA 2013)

Thapar University, Patiala, India, November 28-30, 2013

DAY 3: 30.11.2013

| MAIN AUDITORIUM | | | |
|-----------------|---|--|---|
| 8.55-9.00 | Announcements by Organizing Secretary | | |
| 9.00-9.40 | Recent advances in pipe conveyor technology Renhu Pan, Fujian Longking Company, China | | |
| 9.40-10.20 | Re-interpretation of fluidization Xianfeng Fan, University of Edinburgh, UK | | |
| 10.20-11.00 | Energy saving pneumatic conveying of bulk solids Arika Rinoshika, Yamagata University, Japan | | |
| 11.00-11.20 | Tea + Coffee Break (near to the main auditorium) | | |
| 11.20-12.00 | The significant parameter for the production of nanoparticles by stirred media milling B. Pitchumani, Institute of Technology, New Delhi, India | | |
| 12.00-12.40 | Modelling dense-phase pneumatic conveying of bulk solids Chandana Ratnayake, Tel-Tek Institute, Norway | | |
| 12.40-13.40 | Lunch (near to the main auditorium) | | |
| | TAN BUILDING (ROOM-A): Bulk Solids Handling and Processing | TAN BUILDING (ROOM-B): Particle Synthesis, Properties and Characterization Session Chair: | TAN BUILDING (ROOM-C): Applications of Particle Technology Session Chair: |
| 13.40-14.00 | WORKSHOP: Ash handling systems in thermal power plants Renhu Pan Fujian Longking Company, China | Enhanced stability, conductance and catalytic activity of gold nanoparticles via oxidative dissolution by KMnO₄ Anila Monga and Bonamali Pa, Thapar University, India | Improvement of aerated discharge rate of cohesive powders by nano-coating Sanat Chandra Maiti, Vikram Karde and Chinmay Ghoroi, Indian Institute of Technology, Gandhinagar, India |
| 14.00-14.20 | | Effect of pH on synthesis of single phase Titania (TiO₂) nanoparticles and its characterization G. Sarala Devi K. Shanth Kumar, Indian Institute of Chemical Technology, Hyderabad, India | Experimental investigation of magnetic field assisted EDM with powders mixed in dielectric Geeta Bhatt, Ajay Batish, Anirban Bhattacharya, Thapar University, India |
| 14.20-14.40 | | Processing and characterization of plasma spray coatings of glass micro-spheres premixed with Al₂O₃ particles Gaurav Gupta and Alok Satapathy, National Institute of Technology, Rourkela, India | Epoxy composites filled with micro-sized AlN particles for microelectronic applications Alok Agrawal, Alok Satapathy National Institute of Technology, Rourkela, India |
| 14.40-15.00 | | Morphological study of carbon nanoparticles synthesized at high temperature and pressure Mani Mahajan, K. Singh and O. P. Pandey, Thapar University, India | Study of broken glass granules to find cause of failure of windshield automobiles glass Bhupinder Kaur and O.P. Pandey, Thapar University, India |
| 15.00-15.20 | | Exhibition | Mineralogical studies of fly ash that acts as a soil ameliorant in agriculture Rajinder Kaur and Dinesh Goyal, Thapar University, India |
| 15.20-15.40 | Tea/Coffee Break + Exhibition | | |
| | TAN BUILDING (ROOM-A): Bulk Solids Handling and Processing Session Chair: | TAN BUILDING (ROOM-B): Particle Synthesis, Properties and Characterization Session Chair: | TAN BUILDING (ROOM-C): Applications of Particle Technology Session Chair: |
| 15.40-16.00 | Understanding powder caking as a consequence of a range of mechanisms by means of powder rheometry Tim Freeman, Nishil Malde and Yogin Chandorkar, Freeman Technology, UK and Aimil India | Effect of thermal treatment on morphology and photocatalytic activity of Fe-impregnated sodium titanate nanotubes Inderpreet S. Grover, Satnam Singh and Bonamali Pal, Thapar University, India | High sensitivity and selective response of ZnO: Nb₂O₅ nanocomposite based hydrogen gas sensor G.Sarala Devi, P. Siva Prasad Reddy and K. Ramya, Indian Institute of Chemical Technology, Hyderabad, India |
| 16.00-16.20 | Coal blending for Indian power plants –a case study Dipta Sundar Mallick, Development Consultants Private Limited, Kolkata, India | Photocatalytic degradation of Janus Green B using TiO₂ nanoparticles synthesized by sol gel method Pooja Singla, Manoj Sharma, O.P. Pandey and K. Singh, Sri Guru Granth Sahib World University, Thapar University, India | Development of plasma spray coatings using Linz-Donawitz (LD) slag particles Pravat Ranjan Pati and Alok Satapathy, National Institute of Technology, Rourkela, India |
| 16.20-16.40 | Present day scenario of handling bottom ash Debashish De, Development Consultants Private Limited, Kolkata, India | Exhibition | Development of gypsum powder admixture for exterior wall plaster Sudhir K. Singh, Thapar University, Patiala, India |
| 16.40-17.00 | Powder consolidation – why it is a problem and how to solve it Nilay Shah, Brookfield Engineering USA | Exhibition | Exhibition |
| 17.00-17.20 | Modern bulk materials handling techniques and various logistics solutions relevant to fly ash Anil Seth, Libran Engineering and Services, India | Exhibition | Exhibition |
| 16.40-17.00 | Collection of Certificates | | |
| 17.00-17.45 | Conference Closing Ceremony (Main Auditorium) | | |

International Conference on Powder, Granule and Bulk Solids: Innovations and Applications (PGBSIA 2013)

Thapar University, Patiala, India, November 28-30, 2013

Poster Session: DAY 2 (29.11.13), time: 15.20-16.00, TAN Building First Floor

- Cyclic loading of spherical elastic-plastic granules at diametrical compression**
Alexander Russell, Peter Müller and Jürgen Tomas, Otto von Guericke University of Magdeburg, Germany
- Influence of the growth agglomeration process duration on the produced fraction of agglomerates and their mechanical properties**
Zheni Radeva, Peter Müller and Jürgen Tomas, Otto von Guericke University, Magdeburg, Germany
- Stability criterion for transition from homogeneous to bubbling fluidization**
Naval V. Koralkar, Gopee K. Krushna and Manaswita Bose, Indian Institute of Technology, Bombay
- Experimental study on coefficients of restitution for of solid particles**
Vikul Tomar and Manaswita Bose, Indian Institute of Technology, Bombay
- Effect of vortex finder diameter on flow field and collection efficiency of cyclone separators**
L.S. Brar, R.P. Sharma and R. Dwivedi, BIT Mesra, Ranchi
- Predicting pipe blockage condition for dense phase pneumatic conveying systems**
Gautam Setia and S.S.Mallick, Thapar University, India
- Study of pressure fluctuations during dense phase pneumatic conveying of powders**
Anu Mittal and S.S.Mallick, Thapar University, India
- Micro and macro mechanics of particle breakage**
Ahad Bagherzadeh-Khalkhali and Sohrab Bagheri, Moshanir Power Engineering Consultants, Zanjan Regional Water Co., Tehran, Iran
- CFD analysis of bed voidage characteristic of three phase fluidized bed with distributor**
Sambhurisha Mishra and Hara Mohan Jena, National Institute of Technology, Rourkela, India
- Experimental investigation of collision modes in particulate systems**
Praveen Kumar, Toni C. Veeramani, Indian Institute of Technology, Roorkee, India
- CFD simulation of biomass-sand mixing in a bubbling fluidized bed**
Shadab Alam, Rohit G. S.Srinath, G.Venkat Reddy, National Institute of Technology, Warangal, India
- Collision methodology for resolution of particulate interaction in three dimensional framework**
C. Veeramani, Indian Institute of Technology, Roorkee, India
- Effect of aggregation and dispersion of nanoparticle on tensile strength of polymer/fullerene(C₆₀) nanocomposite: molecular dynamics simulation**
Sunil Kumar and Sudip K. Pattanayek, Indian Institute of Technology, New Delhi, India
- Synthesis of zinc oxide nano particles by high energy ball milling**
S. Purnachandra Rao and R. Nagarajan, Indian Institute of Technology, Madras, India
- Experimental analysis on influence of temperature and concentration of nanofluids on thermophysical properties**
Mahesh Juneja and D. Gangacharyulu, Thapar University, India
- SERS activities of green synthesized silver nanoparticles: size effect**
M.R.Bindhu, V.G. Sathe and M. Umadevi, Mother Teresa Women's University, Kodaikanal; UGC-DAE Consortium for Scientific Research, University Campus, India
- Effect of pH on Size of ZnS nanoparticles and its application for dye degradation**
Jagdeep Kaur, Manoj Sharma and O. P. Pandey, Thapar University, India
- Green synthesis of Al₂O₃ nanoparticles under different reaction conditions**
Prasant Sutradhar and Mitali Saha, National Institute of Technology, Agartala, India
- An investigation into the stability and thermal conductivity of silver/water nanofluids**
Apoorva Singh, B.Pal and S.S. Mallick, Thapar University, India
- Green synthesis of Al₂O₃ nanoparticles under different reaction conditions**
Prasant Sutradhar and Mitali Saha, National Institute of Technology, Agartala, India
- A method for the determination of the particle size distribution of multi-sized coal particulates**
Arunanshu Chakravarty, Satish Kumar and S.K.Mohapatra, Thapar University, India
- Role of different range of particle size on wear characteristics of Al-Rutile composites**
Rama Arora, Suresh Kumar, Gurmel Singh and O.P. Pandey, Punjabi University, Thapar University, India
- Material transfer mechanism during ED-machining of MMC's with powder**
Sarabjeet Singh Sidhu, Ajay Batish and Sanjeev Kumar, Thapar University, India
- Effect of extended milling of scheelite ore with activated charcoal on direct synthesis of nano tungsten carbide**
Harjinder Singh and O. P. Pandey, Thapar University, India
- Crystallization and glass transition kinetics of Na₂S-P₂S₅ based super-ionic glasses**
Paramjyot Kumar Jha, O. P. Pandey and K. Singh, Thapar University, India
- A study on titanium oxide micro-particles filled epoxy with enhanced heat conductivity for microelectronic packaging applications**
Madhusmita Sahu and Alok Satapathy, National Institute of Technology, Rourkela, India
- Photoetching of SiO₂(shell) at CdS(core) nanostructure: An effect of CdS core size on photodecomposition of methyl orange under visible light irradiation**
Nidhi Gupta and Bonamali Pal, Thapar University, India
- An experimental investigation into the thermal properties of nanofluids**
Amit Kumar, Nikhilesh Bhargava, Tushar Sinha and S. S.Mallick, Thapar University, India
- Conductivity and dielectric relaxation studies of La_{0.9}Ba_{0.1}GaO_{3-d} system synthesized through P/M Route**
Kapil Sood, K. Singh, O.P. Pandey, Thapar University, Bhai Gurdas Institute of Engineering & Technology, India
- Effect of Dispersion parameters on thermal conductivity of Alumina (Al₂O₃) and Copper Oxide (CuO) based nanofluids**
Kundan Lal and S. S. Mallick, Thapar University, India
- Effect of addition of fly ash on the rheological properties of bottom ash slurry at varying temperature environment**
Satish Kumar, Thapar University, India
- Influence of CuO nanostructures on the thermal conductivity of DI water and ethylene glycol based nanofluids**
Bhupender Pal and Bonamali Pal, Thapar University, India
- Effect of particle size on wear behaviour of Al-garnet composite**
Anju Sharma, Suresh Kumar, Gurmel Singh and O.P. Pandey, Punjabi University, Thapar University, Patiala, India