

# POWDER TECHNOLOGY CONCLAVE & EXHIBITION

Emerging Challenges & Opportunities

March 6 - 8, 2024

Department of Mechanical Engineering  
Thapar Institute of Engineering & Technology, Patiala, India

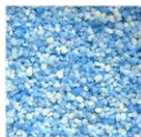


## See the Future In Powder Technology

Learn from 25+ International Experts - Scientists, Technologists, Business Leaders

### Conclave Theme

- Achieve Design Quality of Products and Processes using Advanced Powder Characterization
- Generate Clean Energy & Minimize Waste with Novel Powder Handling / Processing Technologies
- Improve Product Quality with Reliable Powder Flow in Additive Manufacturing Processes
- Comply to Higher Product/Process Standards with Improved Powder Handling Hardware / Operation
- Adapt to Industry 4.0 with Simulation, AI & Digital Twin in Powder Handling / Processing Industries



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

KEYNOTE SPEAKERS



Prof. & Dean, Noam Eliaz  
Tel Aviv University, Israel



Prof. Anthony Thornton  
University of Twente, Netherlands



Distinguished Prof. Rajesh Dave  
New Jersey Inst. of Tech., USA



Prof. Mike Bradley  
Greenwich University, UK



Prof. Massimo Poletto  
University of Salerno, Italy



Prof. Avy Levy  
Ben-Gurion University, Israel



Dr. Colin Hare, Senior Lecturer  
University of Newcastle, UK



Dr. Ben Freireich, Technical Fellow  
Origin Materials, USA



Sanjay Bhalla, CEO  
MAPEI, India



Vikas Bhatia, Managing Director  
Rieco Industries Ltd. India



Prof. Arvind Bansal  
National Inst. Pharma., NIPER, India



Manish Tiwari, Addl GM  
NTPC Ltd., India



Dr. Sushil Shishath, Senior Scientist  
Aditya Birla Group, India



Dr. Pratap Kaisna, Modelling Expert  
Novartis Pharmaceutical Corp., India



Prof. Pulak M. Pandey, Director  
BIET Jhansi / IIT Delhi, India



Dr. Uttam Datta, Senior Manager  
Unilever Nutrition R&D Centre, India



Prof. S.S. Mallick  
Thapar Institute (TIET), India



Dr. G. Sridhar, Director General  
National Inst. Bio Energy (NIBE), India



Prof. Chinmay Ghoroi  
IIT Gandhinagar, India



Dr. Archan Dey, Senior Scientist  
Dr. Reddy's Laboratories, India



Prof. Prashant K. Jain  
IIIT Design & Manufacturing, India



Dr. Ramchander Chepyala, Director  
HLSS Manufacturing, India



Jagannath Dey, Deputy GM  
NTPC Ltd.

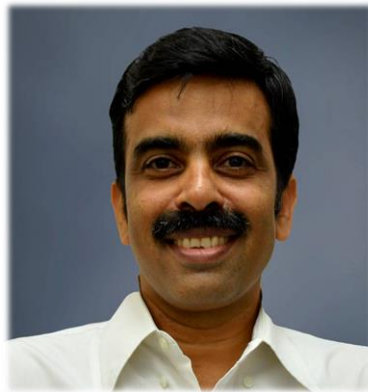


Sanjoy Paul, Senior Manager  
Development Consultants, India

KEYNOTE SPEAKERS



Dr. Ravi Gupta, Director-Orthopaedics  
Fortis Hospital, Mohali, India



Prof. Parag Bhargava  
IIT Bombay, India



Mohan S Nainegali, DEM Specialist  
Altair, India



Lakshay Awasthi, Technology Architect  
Infosys - Chandigarh, India



Dr. Prakash Muthudoss, Director  
A2Z Research & Analytics, India

## Introduction

POWDER TECHNOLOGY CONCLAVE AND EXHIBITION : EMERGING CHALLENGES & OPPORTUNITIES will be held at Thapar Institute of Engineering & Technology (TIET) campus on March 6-8, 2024. The event is being organized by the Department of Mechanical Engineering of the institute. The areas of interests cover various fundamental and applied aspects of powder technology: powder synthesis, characterization, measurement, sensors/instrumentation, powder flow, storage, conveying, processing, modelling, scale-up procedures, segregation, grinding, coating, granulation, spreadability, dust control, environmental hazards, simulation, application of AI/ML, digital twin etc.

## Emerging Challenges and Solution Opportunities

The novelty of Powder Technology Conclave (PTC2024) is that this event addresses Powder Technology based innovative solutions catering to important emerging global challenges. The event focusses on futuristic technological requirements, challenges and solution opportunities in the interest of both the academic/research and industry communities.

PTC2024 covers the following themes:

- Achieve Design Quality of Products and Process using Advanced Powder Characterization
- Generate Clean Energy & Minimize Waste with Novel Powder Handling & Processing Technologies
- Improve Product Quality with Reliable Powder Flow in Additive Manufacturing Processes
- Comply to Higher Product/Process Standards with Improved Powder Handling Hardware & Operation
- Adapt to Industry 4.0 with Simulation, AI & Digital Twin in Powder Handling & Processing Industries

## Who Should Attend

- Manufacturers, suppliers for instruments, equipment, automation, software and systems
- Plant owners, managers, operators and maintenance personnel
- Design engineers and consultants, members of professional bodies
- Academicians, scientists and PhD/PG/UG students

## Benefits of Attending

- Increased awareness of emerging challenges and identification of business opportunities on emerging powder materials, processes, equipment and instrument requirement and specifications.
- Identification of business opportunities on converting/designing industrial systems as per Industry 4.0 practices with use of automation, artificial intelligence, simulation and digital twin.
- Identification of future research and innovation direction/projects to provide solutions to emerging process, product, instrument, automation, software, simulation challenges.
- Increased networking and academia-industry collaboration opportunities for future R&D projects.
- Opportunity to learn about the latest equipment/hardware/processes from the exhibitors.

## Call for Abstracts

- The event will consist of: Plenary and keynote/Invited Lectures of academic and industry experts and panel discussions; Presentation of latest research results by academicians/scientists/PhD students; Presentation of case studies, challenging industry requirements and solution by industry delegates; Exhibition stalls for product showcase – instrument/tester/equipment/software; Networking sessions.
- Industry delegates/academics/scientists/students who would like to present their work/ result/ contribution, are required to submit abstract via event website [www.powtechconclave.com](http://www.powtechconclave.com)

## Powder Technology Excellence Award

The following awards will be presented during PTC2024 judged by an independent expert committee:

- Best Industry Innovation Award
- Best Research Award

## Registration

India	Till 15.01.2024	After 15.01.2024
Industry, Faculty, Scientists	Rs. 10000 + 18% GST = Rs. 11800	Rs. 12000 + 18% GST = Rs. 14160
Students	Rs. 6000 + 18% GST = Rs. 7080	Rs. 8000 + 18% GST = Rs. 9440

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International	Till 15.01.2024	After 15.01.2024
Industry, Faculty, Scientists	USD 600 + 18% GST = USD 708	USD 700 + 18% GST = USD 826
Students	USD 400 + 18% GST = USD 472	USD 500 + 18% GST = USD 590

- For 3 or more participants coming from the same origination, 10% discount will be applicable.
- All payment will be made to Thapar Institute of Engineering & Technology.
- Refer to event website [www.powtechconclave.com](http://www.powtechconclave.com) for payment.
- Registration once made, can not be withdrawn. However, alternative participant may be nominated.
- Registration fee includes kit, access to technical sessions, all meals during the event.
- Write to [powderflow@thapar.edu](mailto:powderflow@thapar.edu) or call at +91 9417273900 for payment/registration related query.

## Important Dates

Abstract submission opens (via event website)	:	15 <sup>th</sup> September 2023
Abstract submission closes	:	25 <sup>th</sup> November 2023
Acceptance of abstract and confirmation of presentation	:	30 <sup>th</sup> December 2023
Early bird registration closes	:	15 <sup>th</sup> January 2024

## Travel to Patiala and Post Conclave Sight Seeing Trips

The nearest airport to Patiala is Mohali / Chandigarh International Airport - 65 km away (1-1.5 hours by cab). The airport is well connected to the national capital New Delhi by frequent flights throughout the day. The driving distance from New Delhi to Patiala is 300 km, which takes 5-6 hours by cab. Nearest major railway station is Ambala Cantonment – 65 km by away (1-1.5 hours by cab).

Post conclave, 1-day sight seeing trips to Amritsar – Golden temple visit or Shimla – hill station in the Himalayan mountain will be organized (chargeable basis).

## Powder Technology Research at TIET and Solution to Industry

Thapar Institute of Engineering & Technology (TIET) has India's largest powder characterization, flow property and dry conveying pilot plant. The facility is been developed with financial support from NTPC, DST, DST - SERB, CSIR, TIET etc. and includes dense-phase and vacuum pneumatic transport plant, hopper rig, powder flow property and segregation testers, solar PV cell cleaning rig, simulation facility, and advanced characterization equipment, such as FEG SEM with EDS, STEM, EBSD detectors, X-Ray diffraction with bulk texture and residual stress attachment, Raman Spectroscopy, DSC, TGA etc. The institute has provided numerous consulting and professional training services to NTPC, TATA Power, ISRO, HPGC, Aditya Birla Group, Reliance, L&T, SchenkProcess, ALTAIR, DMN Westinghouse, Rieco Industries, L&T, FLSmith, Paul Worth, Jamipol, AirLock International, Krishna Metallurgical Lab, Aatri Steel International, Lonestar Technical & Industrial Services, PSPCL, Vardhaman Industries etc.



# Thapar Institute of Engineering & Technology (TIET)

The Thapar Institute of Engineering and Technology (TIET) is one of India's oldest and finest educational institutions, which provides a steady source of highly skilled talent to the nation as well as overseas. Founded in 1956 with a campus spread across sprawling 250 acres, Thapar Institute of Engineering & Technology, located in Patiala, has been a pioneer in engineering education, research and innovation. Our community involves ingenious minds solvers who are eager to make the world a better place to live in with their innovative techniques and discoveries.

Rated amongst the top ranked innovation-driven private universities and technical institutes in the country – currently ranks 20 (NIRF ranking), Thapar Institute of Engineering & Technology has been accredited with an 'A+' grade by the National Assessment and Accreditation Council (NAAC). We constantly evolve our teaching methods, and provide quality education to our students, whom we see as unique individuals with different interests and aspirations. We keep the quality of our curriculum, faculty and infrastructure unparalleled, and believe in encouraging thousands of young minds to excel in India and abroad. Our alumni have stood out in varied fields such as business and industry, administrative and regulatory services, research and education, and social and human rights organisations.





## Local Organizing Committee

Chief Patron : Dr. Padmakumar Nair, Professor & Director, Thapar Institute of Engineering & Technology

Patron : Dr. Ajay Batish, Professor & Deputy Director, Thapar Institute of Engineering & Technology

Chair : Dr. Tarun Kumar Bera, Professor & Head of Mechanical Engineering Department

Dr. Amandeep Oberoi, Associate Professor  
Mechanical Engineering Department

Dr. Ashish Purohit, Associate Professor (coordinator)  
Mechanical Engineering Department

Dr. Bhaskar Chandra Mohanty, Professor  
School of Physics and Material Sciences

Dr. Hitesh Mehtani, Assistant Professor (coordinator)  
Mechanical Engineering Department

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Electrical & Instrumentation Engineering Department

Dr. Mamta Gulati, Assistant Professor  
School of Mathematics

Dr. Prabhat Chand Yadav, Assistant Professor  
Mechanical Engineering Department

Dr. Santosh Sonar, Assistant Professor  
Electrical & Instrumentation Engineering Department

Dr. S.S.Mallick, Professor (coordinator)  
Mechanical Engineering Department

Dr. Vineet Srivastava, Associate Professor (coordinator)  
Mechanical Engineering Department

Dr. Vivek Gupta, Assistant Professor  
Civil Engineering Department

Dr. Amanpreet Kaur, Associate Professor  
Electronics & Communication Engineering Department

Dr. Avinash Chandra, Associate Professor  
Chemical Engineering Department

Dr. Dwarka Nath Rath, Professor  
Civil Engineering Department

Dr. Jatyant Kole, Assistant Professor  
School of Physics and Material Sciences

Dr. Kundan Lal, Assistant Professor (coordinator)  
Mechanical Engineering Department

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Biotechnology Department

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Chemical Engineering Department

Dr. Shewta Goyal, Professor  
Civil Engineering Department

Dr. Surbhi Sharma, Associate Professor  
Electronics & Communication Engineering Department

Dr. Vishal Gupta, Assistant Professor  
Mechanical Engineering Department

## CONTACT (COORDINATORS): General Enquiry / Sponsorship / Exhibition / Attend

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