



Further Information

The workshop will take place on-site.

Fees

The following fees apply:

In-person attendance

Non-student (3 day attendance)	£750.00
Non-student (1 day attendance)	£250.00
Student (3 day attendance)	£300.00
Student (1 day attendance)	£100.00

Workshop materials

Electronic copy of presentations and supporting materials will be provided online.

How to Book

Please book your place through our secure registration page by going to bit.ly/pcw2023 or scanning the QR code above. Payment can be made via credit/debit card or an invoice can be requested. A receipt will be provided on completion of your booking.

"I am a QR code. Scan me!"



Powder Characterisation Workshop 2023

Tuesday 18th to Thursday 20th April 2023

Terms and conditions for booking

Payment by debit/credit card

Payment should be made at the time of booking via the registration link above.

Where a delegate cancels a registration

For cancellations made within seven days of booking: a full refund is payable unless the course starts within the next seven days, in which case the full fee is payable and no refunds will be made. For cancellations made after seven days of booking: written cancellations received up to 15 working days before the course will be subject to an administrative charge of 20% of the total fee. Within 15 working days of the course the full fee is payable and no refunds will be made.

For non-attendance: the full fee is payable and no refunds will be made but copies of the course materials will be sent to the registered delegate. Substitutions may be made at any time.

Changes made by the University of Leeds

The workshop programme may have to be re-scheduled or the speakers changed for reasons outside our control. The University of Leeds reserves the right to cancel or postpone a meeting, in which case fees will be refunded in full. In the event of cancellation, the University will not be held liable for delegates' travel or accommodation expenses.



Powder Characterisation Workshop 2023

Organised by: Professor Mojtaba Ghadiri and Dr Wei Pin Goh, University of Leeds

About the workshop

Reliable and consistent operation of processes involving particulate solids depends critically on understanding powder behaviour through the characterisation of its chemical, physical and mechanical properties. In this workshop, leading experts in the field outline the principles and methods for characterisation, ranging from molecular level to single particles and to bulk levels. The workshop provides a forum for addressing basic principles as well as discussing the state-of-the-art techniques and latest developments.

The workshop is tailored for scientists, engineers and technologists who wish to gain a better understanding of powder characteristics with the purpose of addressing powder handling, processing and manufacturing issues from a fundamental basis. It covers a broad overview of various characterisation approaches, followed by an in-depth assessment of their significance.

Workshop Delivery

The workshop will run on-site at the University of Leeds for three days starting on Tuesday 18th April 2023. It will be delivered by our guest academic and industrial speakers with internationally-leading expertise in their own speciality field. Each day also provides the opportunity to discuss technical questions and issues with the speakers during scheduled Q&A sessions.

Informal Forum

There will be informal fora at the end of each day for the workshop participants to network with the speakers and other participants.

Poster Presentation

The workshop has a designated area for scientific posters, addressing a number of current research activities in powder characterisation. Participants are also invited to bring a poster on related topics if they wish to do so. Any questions regarding the submission of the poster can be sent to W.P.Goh@leeds.ac.uk.

PROGRAMME

Day One

18th April 2023

Characterisation of Physical Properties of Particles

Sampling and Sample Preparation for Particle Characterisation

Prof Mojtaba Ghadiri, University of Leeds

- ❖ Origins of problems in particle property analysis
- ❖ Sampling from particulate systems
- ❖ Sample preparation

Particle Size Analysis

Prof Tatsushi Matsuyama, Soka University

- ❖ Principles of size analysis
- ❖ State-of-the-art instruments for particle sizing

Particle Shape and Structure Characterisation

Dr Mehrdad Pasha, Janssen Pharmaceutical

- ❖ Shape and shape description
- ❖ Surface morphology and structure
- ❖ Application to density determination

Suspension Rheology

Dr Rammile Ettelaie, University of Leeds

- ❖ Introduction to the principles of suspension rheology
- ❖ Particle structuring in suspensions
- ❖ Measurement of suspension rheology

Day Two

19th April 2023

Characterisation of Chemical and Mechanical Properties of Particles

Mechanical Properties of Powders

Dr Wei Pin Goh, University of Leeds

- ❖ Introduction to mechanical properties of powder
- ❖ Characterisation of deformation and breakage of particles
- ❖ Characterisation by nano-indentation
- ❖ Particle breakage under brittle and semi-brittle failure modes
- ❖ Impact and side crushing of single particles
- ❖ Bulk compression and crushing

Powder Flow Characterisation

Dr Colin Hare, University of Newcastle

- ❖ Shear cells and powder rheometry
- ❖ Frictional properties
- ❖ Consolidation and unconfined yield stress

Tabletting and Compaction of Powders

Professor Csaba Sinka, University of Leicester

- ❖ Fundamentals of tabletting and compaction of powders
- ❖ Industrial use of tabletting and compaction

Determination of Powder Surface Energy and Surface Chemistry

Professor Jerry Heng, Imperial College London

- ❖ Principles
- ❖ Applications to powders

Day Three

20th April 2023

Characterisation of Chemical and Mechanical Properties of Particles

Adhesion

Dr Simon Connell, University of Leeds

- ❖ Principles
- ❖ Measurement techniques
- ❖ State-of-art in the field

Segregation in Bulk Flow of Powders

Dr Vincenzino Vivacqua, UCB Pharma

- ❖ Processes and mechanisms of segregation
- ❖ Prevention
- ❖ Measurement techniques
- ❖ Analysis and modelling

Solubility and Dissolution of Particles

Dr Elena Simone, Politecnico di Torino, Italy

- ❖ Principles
- ❖ Applications

Electrostatics in Powder Systems

Prof Shuji Matsusaka, Kyoto University

- ❖ Fundamentals of tribo-electrification of powders
- ❖ Measurements of tribo-electrification of powders
- ❖ Industrial applications of electrostatics in powder systems

Brought to you by:

