Day 1 – Monday 9th September 2024

- 09:30 10:00 Registration
- 10:00 10:10 Welcome Speech

Professor Rachel Smith

Theme 1: Particle Dynamics and Interactions

- 10:10 10:40 Constrained Viscous Sintering of Spherical *Professor Chuan-Yu* Particles: An Experimental Study *Wu*
- 10:40 11:10 Experimental and Numerical Analyses of Overtaking and Cooperative Behaviours in Disks Falling in a Low-Density Particle Bed
- 11:10 11:55 Coffee Break & Poster Session
- 11:55 12:25 Transition of Fluidization Behaviour Induced by *Professor Yoshihide* External Mechanical Vibration *Mawatari*
- 12:25 12:55 Universal Stress Model for Predicting and Professor Arno Optimizing Comminution and Mixing Processes Kwade
- 12:55 14:00 Lunch

Theme 2: Modelling and Simulation of Particle Systems

- 14:00 14:30 Recent Breakthroughs in the Discrete Element **Professor Mikio** Sakai Method for Industrial Applications 14:30 – 15:00 A New DEM-CFD Solver for Reactive Dense Gas-Professor Takuya Tsuji Solid Flows 15:00 – 15:45 Coffee Break & Poster Session 15:45 – 16:15 Discrete Particle Simulation of Loose Packing Dr Kimiaki Washino Behaviour for Fine and Cohesive Granular Materials Dr Alberto Di Renzo 16:15 – 16:45 Advances Tribocharging in Particle and Electrostatic Interaction Models for DEM Simulations 16:45 – 17:15 Industry Session Presentations from Verder Scientific and Canty **Process Technologies**
- 18:00 21:00 **Workshop Dinner**

Day 2 – Tuesday 10th September 2024

09:00 – 09:15 Arrival

Theme 3: Particle Processing and Industrial Applications

09:15 – 09:45	Attrition of Particulate Solids	Professor Mojtaba Ghadiri
09:45 – 10:15	Experimental and Numerical Analysis of Compression Processes for Batteries and Pharmaceutics	Professor Shuji Ohsaki
10:15 – 10:45	Prediction of Powder Mixing by DEM Surrogate Model based on Machine Learning Coupled with Stochastic Model	Dr Hideya Nakamura
10:45 – 11:30	Coffee Break & Poster Session	
11:30 – 11:45	Study of Hollow Agglomerate Formation Through Mechanistic Understanding during Spherical Agglomeration of Battery Materials	Professor Rachel Smith
11:45 – 12:30	Synthesis and Application of Multifunctional Iron Oxide Nanoparticles for Targeted Drug Delivery in Cancer Treatment	Dr Ali Hassanpour
12:30 – 13:30	Lunch	
Theme 4: Part	icle Characterisation and Advanced Analysis	
Theme 4: Part 13:30 – 14:00	icle Characterisation and Advanced Analysis Bootstrap Method as a Non-Parametric Analysis	Professor Tatsushi Matsuyama
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