

2015 N08 Particle and Colloid Engineering in the Nuclear Industry

January 05th - Conference Rm A, 2nd Floor, Schuster Building, Manchester (Dr A. Hassanpour)

09.20 – 09.30 Welcome and course overview (Dr B. Xu)
09.30 – 10.45 Introduction and objectives
10.45 – 11.00 Break
11.00 – 12.15 Single particle characterisation: size, shape and strength
12.15 – 13.15 Lunch
13.15 – 14.30 Flow of free-flowing and cohesive powders
14.30 – 14.45 Break
14.45 – 16.00 Bulk powder characterisation: flowability
16.00 - 17.00 Summary and tutorial on single particle and bulk characterisation

January 06th - Conference Rm B, 2nd Floor, Schuster Building, Manchester (Dr Ali Hassanpour)

09.30 – 10.45 Bulk powder characterisation: segregation
10.45 – 11.00 Break
11.00 – 12.15 Particulate processes: mixing and fluidisation
12.15 – 13.15 Lunch
13.15 – 14.30 Particulate processes: Size reduction
14.30 – 14.45 Break
14.45 – 16.00 Particulate processes: Size enlargement
16.00 - 17.00 Summary and tutorial on bulk characterisation and particulate processes

January 07th - Conference Rm B, 2nd Floor Schuster Building Manchester (Prof D. Wen)

09.30 – 10.45 Introduction and objectives
10.45 – 11.00 Break
11.00 – 12.15 Nanoparticle-fluid systems: fundamentals
12.15 – 13.15 Lunch
13.15 – 14.30 Nanoparticles: production and characterisation
14.30 – 14.45 Break
14.45 – 16.00 Nanoparticle-fluid systems: applications
16.00 - 17.00 Summary and tutorial on nanoparticle engineering

January 09th - Conference Rm B, 2nd Floor Schuster Building Manchester (Dr B. Xu)

09.30 – 10.45 Introduction and objectives
10.45 – 11.00 Break
11.00 – 12.15 Discrete element method
12.15 – 13.15 Lunch
13.15 – 14.30 Computational fluid dynamics
14.30 – 14.45 Break
14.45 – 16.00 Multiscale modelling and its applications
16.00 - 17.00 Summary and tutorial on contact mechanics

January 10th - Conference Rm B, 2nd Floor Schuster Building Manchester (Dr B. Xu)

09.30 – 10.45 In-course assignment presentations
10.45 – 11.00 Break
11.00 – 12.15 In-course assignment presentations
12.15 – 13.15 Lunch
13.15 – 14.30 In-course assignment presentations
14.30 – 14.45 Break
14.45 – 16.00 In-course assignment presentations