Industrial Chemical Process Design and Analysis

Course Outline

1) Chemical Process Diagrams
   Process flow diagrams and piping & instrumentation diagrams.

2) Safety Analysis by Dynamic Simulation
   Behaviour and interaction of process variables in hazardous situations and operating conditions
   which deviate from steady state will be explored. Dynamic process simulation will be used to
   test, analyze, explore and learn about safety issues related to process design, chemical
   processing, chemical reaction characteristics and operating conditions.

3) Cost & profitability analysis
   Optimization studies though the use of process simulation software will be used to evaluate
   optimal capital and operating costs.

Trainer’s Profile

1) Dr. Zhou Xingding is a senior lecturer and has a PhD in Chemical Engineering. He leads
   several R&D projects as a Principal Investigator to develop new chemical manufacturing
   processes.

2) Dr. Noel Xu Qingxing is a lecturer and has a PhD in Chemical Engineering. He has authored
   several international peer-reviewed journal articles in the areas of drug delivery and
   antimicrobial polymers.

3) Dr. Simon Teo Wei Suong is a lecturer and has a PhD in Chemical Engineering. He has
   authored several peer-reviewed journal articles and book chapters in industrial biotechnology
   and biochemical engineering.