

CAD-IT CONSULTANTS (ASIA) PTE LTD TRAINING COURSES

COURSE NAME : Introduction to FLUENT

DURATION : 4 x 8hrs sessions

* Creditable for QUT Master program and Continuing Development (CPD) courses offered by the Professional Engineers Board (PEB) Singapore.

OBJECTIVES

The primary goal of this course is to cover the basics of working in the FLUENT software environment. All course material is designed to educate participants on the best practices for effectively calculating a broad range of real-world CFD problems from start to finish. Attendees will have hands-on time to work through the entire simulation process, and learn about the range of physical models and meshing schemes available along with the strengths and weaknesses of each option. Mesh generation using preprocessing software, GAMBIT or TGrid, is also covered.

FOR WHOM

This course is intended for clients who have little to no experience with FLUENT Computation Fluid Dynamics (CFD) software. New users of the software are encouraged to register for the four-day training course.

PRE-REQUISITES

Engineering knowledge is required, familiarity with computer (PC or workstation) and knowledge of Computational Fluid Dynamics (CFD) is useful.

COURSE SYLLABUS

DAY ONE - GAMBIT

- Introduction to CFD Analysis
- Demonstration
- Introduction to GAMBIT
- Geometry Creation
- Edge-Face Meshing and Mesh Quality
- Volume Meshing

DAY TWO - GAMBIT

- Mesh Control through SF's and BL's
- Volume Decomposition examples
- CAD/CAE Data Exchange and Geometry Cleanup
- (Virtual Geometry)
- Cleanup Tools + Demo (optional)

DAY THREE - FLUENT

- Solver Basics
- Boundary Conditions
- Solver Settings
- Heat Transfer

DAY FOUR - FLUENT

- Turbulence Modeling
- Multiphase Modeling
- Moving Zone Models
- User Defined Function