



## CAD-IT CONSULTANTS (ASIA) PTE LTD TRAINING COURSES

**COURSE NAME** : EXPLICIT DYNAMICS ANALYSIS WITH ANSYS LS-DYNA  
**DURATION** : 2 x 8hrs sessions

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

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### OBJECTIVES

The Participants will be trained to have the basic skills of using ANSYS LS-Dyna in explicit dynamic analysis. The course will comprise of theory as well as hands-on exercise. Attendees with prior modeling and nonlinear skills should be able to:

- Distinguish problems that should be solved explicitly versus implicitly
- Identify and choose element types, materials and commands used in explicit dynamic analyses
- Perform all procedures for explicit dynamic analyses.

### WHO SHOULD ATTEND

The course is intended for engineers or research fellows who need to perform highly nonlinear structural transient dynamic analyses

### PRE-REQUISITES

Participants should have a BS in engineering or equivalent experience and should have basic FEA knowledge and ANSYS skill. An understanding of nonlinear and transient phenomena (such as plasticity and contact) would be an advantage.

### COURSE SYLLABUS

#### DAY ONE

- Element Technology
- Dynamic Model Part definitions
- Material definitions
- Boundary Conditions, Loading, and Rigid bodies
- Solution and simulation controls
- Postprocessing Process

#### DAY TWO

- Restarting Process
- Explicit-to-Implicit sequential solutions
- Implicit-to-explicit sequential solutions
- ANSYS/LS-DYNA Drop Test Module