

# Digital ENGINEERING



## Ansys Fluent Basic Training

- ▶ Customizable modules
- ▶ Flexible schedule
- ▶ Location of your choice  
(CYBERNET MALAYSIA training room or on-site training at your company)



### Program Overview

An introduction course to Ansys® CFD™ software user interface and its features to perform Computational Fluid Dynamics (CFD) Analysis. By completing this course, participants will gain a general knowledge for preparing geometry files, setting up boundary conditions, solving and post-processing the simulation results.

The training content overleaf can be customized according to your needs.



#### Inquiries:

Jim Pong  
+6016 9262 897  
[jpng@cybernet.asia](mailto:jpng@cybernet.asia)

#### CYBERNET SYSTEMS MALAYSIA SDN. BHD.

SO-32-3A Menara 1, KL Eco City, Jalan Bangsar  
59200 Kuala Lumpur, Malaysia  
TEL: +60(3) 22011221

<http://www.cybernet.asia/> | [information@cybernet.asia](mailto:information@cybernet.asia)

# Training Schedule

## Day 1

09:00 – 10:00	<b>Module 1: CFD Overview</b> Key Topics: <ul style="list-style-type: none"> <li>• Introduction to Computational Fluid Dynamics (CFD)</li> <li>• General workflow in a CFD simulation project</li> </ul>
10:00 – 12:00	<b>Module 2: Fluent Meshing Overview</b> Key Topics: <ul style="list-style-type: none"> <li>• Import geometry for meshing</li> <li>• Watertight geometry workflow</li> <li>• Surface meshing</li> <li>• Local sizing functions</li> </ul>
12:00 – 13:00	<b>Lunch</b>
13:00 – 15:00	<b>Module 3: Geometry Description and Volume Meshing</b> Key Topics: <ul style="list-style-type: none"> <li>• Describe the geometry flow region</li> <li>• Boundary layer settings</li> <li>• Volume meshing</li> <li>• Evaluate mesh quality</li> </ul>
15:00 – 16:00	<b>Module 4: Fluent Solution Overview</b> Key Topics: <ul style="list-style-type: none"> <li>• Fluent workspace user interface</li> <li>• Ribbon-guided basic workflow</li> <li>• Solving a simple CFD problem from beginning to end</li> </ul>
16:00 – 17:00	<b>Module 5: Physics Setup</b> Key Topics: <ul style="list-style-type: none"> <li>• Define material properties</li> <li>• Cell zones setting</li> <li>• Boundary conditions setup</li> </ul>

## Day 2

09:00 – 10:00	<b>Module 6: Solution Setup</b> Key Topics: <ul style="list-style-type: none"> <li>• Solver setting</li> <li>• Report definitions for monitoring convergence</li> <li>• Solution initialization</li> </ul>
10:00 – 12:00	<b>Module 7: Post-processing Results</b> Key Topics: <ul style="list-style-type: none"> <li>• Flow field visualization</li> <li>• Contours and plots</li> <li>• Quantitative data analysis</li> </ul>
12:00 – 13:00	<b>Lunch</b>
13:00 – 15:00	<b>Module 8: Turbulence Flow Modeling</b> Key Topics: <ul style="list-style-type: none"> <li>• Different turbulence models</li> <li>• Turbulence modeling approaches</li> <li>• Turbulent layer profile</li> <li>• Near-wall treatments               <ul style="list-style-type: none"> <li>○ Boundary conditions setup for turbulent flow</li> </ul> </li> </ul>
15:00 – 16:00	<b>Module 9: Heat Transfer Modeling</b> Key Topics: <ul style="list-style-type: none"> <li>• 3 modes of heat transfer: conduction, convection, radiation</li> <li>• Wall thermal boundary condition setup</li> </ul>
16:00 – 17:00	<b>Module 10: Transient Flow Modeling</b> Key Topics: <ul style="list-style-type: none"> <li>• Transient flow setup</li> <li>• Time step size calculation</li> <li>• Post-process transient data</li> </ul>

# Speaker Profile



## Albert Wong

Application Engineer

CYBERNET SYSTEMS MALAYSIA SDN.BHD.

Albert has a Master's Degree in Mechanical Engineering from the University of Nottingham Malaysia (UNM). He has over 4 years of working experience as an application engineer in the CAE simulation field. His main areas of technical expertise are mechanical structural analysis and Computational Fluid Dynamics (CFD) simulation. Albert's prior work experiences include building ventilation simulation, transient airflow simulation and aeroacoustics analysis in the air-conditioning (HVAC) industry. He has experience in providing basic and advanced training for Ansys software such as Ansys Mechanical™ and Ansys Fluent®.

Albert is a Certified TTT Trainer.

### Why learn with CYBERNET?



CYBERNET is a leading CAE company headquartered in Tokyo Japan. They provide CAE solutions and services to their customers in Japan and overseas since 1985.



CYBERNET MALAYSIA is a Channel Partner of Ansys in the ASEAN region.



In-house application engineers with multi-industry experience.

## Registration Form

Course title	Ansys Fluent Basic Training
Date(s)	
Time	
Venue	
Course fee	
Closing date	

Organization	
Address	
Contact person	
Designation	
Mobile	
Work telephone	
Email	

Participant(s)	
Name	
Designation	
Email	
Course title	

Participant(s)	
Name	
Designation	
Email	
Course title	

Participant(s)	
Name	
Designation	
Email	
Course title	

## Payment Method

Please remit payments to

Bank	Mizuho Bank (Malaysia) Berhad
Bank address	Level 27, Menara Maxis, Kuala Lumpur City Centre, 50088 Kuala Lumpur, Malaysia
Beneficiary	CYBERNET SYSTEMS MALAYSIA SDN. BHD.
Account Number	888 0055 764 (Currency: MYR)

### Terms & Conditions:

- 1) This workshop is HRD Corp claimable.
- 2) Please contact us 1 week prior to the course date, in the event there is an increase in the number of participants.
- 3) Additional participants will be charged accordingly.
- 4) Cancellation within less than 7 business days prior to the course date, is subject to a service charge equals to 50% of the course fee.
- 5) There is no change in the course fee if the number of participants are less than 2 persons.

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