



شركة ميرك العربية السعودية  
MEIRC Saudi Arabia

## Hydraulic and Pneumatic Systems

### Duration 5 Days

### Course Description

This course covers theory, fundamentals, and application of hydraulic and pneumatic systems. Emphasis is placed on practical application of fundamental fluid power principles. Students will learn fluid power circuits, terminology, symbols, and calculations for force, velocity, and horsepower. In addition students will apply circuit fundamentals in the design of manufacturing, construction, or transportation models .

### Course Objectives

- Describe and explain ten practical examples of fluid power.
- Describe ten occupations related to fluid power.
- Assemble a fluid power circuit using at least ten components
- Understand the main components of the hydraulic and pneumatic systems
- Design hydraulic and pneumatic circuits.
- Design and understand the electro-hydraulic and electro-pneumatic circuits.

### Who Should Attend?

- Consulting engineers
- Design engineers
- Mechanical engineers and technicians
- All those who plan to make a career in hydraulics and pneumatics

### Program Schedule

- Introduction of fluid power
- Pneumatic characteristics
- The applications of Pneumatic characteristics
- Air generation treatments
- Air generation distribution
- Pneumatic actuators
- Input, control, and processing elements
- Pneumatic system design and development
- Hydraulic characteristics
- The applications of Hydraulic characteristics
- Hydraulic generation treatments
- Hydraulic generation distribution
- Hydraulic actuators
- input, control, and processing elements
- Hydraulic system design and development