



## Industrial Training Program PLC | Pneumatics | Hydraulics



**AKGEC-rexroth**  
COE in Automation Technologies

## Module I : Industrial hydraulics

- Basic concepts of fluid mechanics and hydraulic systems
- Physical fundamentals and principles of hydraulic system
- Hydraulic system operation
- Fluid power symbols as per DIN ISO 1219
- Hydraulic components (pumps, motors, cylinders valves: directional, pressure, flow; accessories)
- Electro-Hydraulic control
- Instructions, guidance, and review for practical
- Practice by self-trial of circuit making on the demonstration power pack

Implementation : Theory & Practice

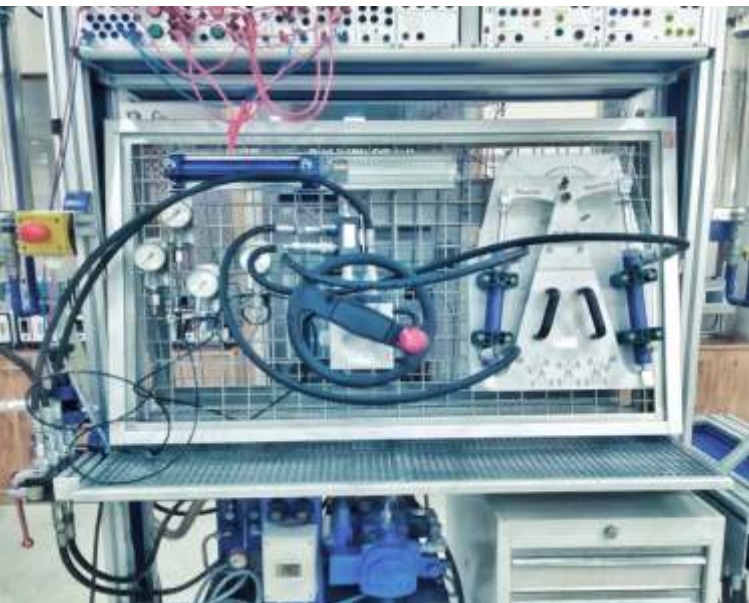
Language : English

Duration : 40 Hrs

Prerequisite : Basic Engineering Fundamentals

Training Location : AKGEC BOSCH, India

Certification Partner : BOSCH Rexroth



## Module II : Industrial Control

- ◆ Introduction to PLC and applications
- ◆ Hardware details, digital I/O's, analog I/O's
- ◆ Software installation, hardware configuration project development
- ◆ Logic development, ladder diagram
- ◆ Addressing of digital I/O's, basic PLC programming (Programming On/Off inputs to produces On/Off outputs)
- ◆ Selection of the necessary hardware units
- ◆ Programming & Simulation
- ◆ Start-up procedure and testing
- ◆ Batch processes and sequential control

Implementation : Theory & Practice

Language : English

Duration : 40 Hrs

Prerequisite : Automation Technologies Basic

Training Location : AKGEC BOSCH, India

Certification Partner : BOSCH Rexroth



## Module III : Industrial Pneumatics

- ◆ Introduction to pneumatic system control, and compressed air preparation
- ◆ Pneumatics cylinders
- ◆ Direction Control valves
- ◆ Controlling of pneumatic cylinders: Direct and Indirect control
- ◆ Electro-Pneumatic Control
- ◆ Solenoid operated valves
- ◆ Pneumatic & Electro-Pneumatic Circuits with practical aspects
- ◆ Speed control of cylinders
- ◆ Coordinated motion control

Implementation : Theory & Practice

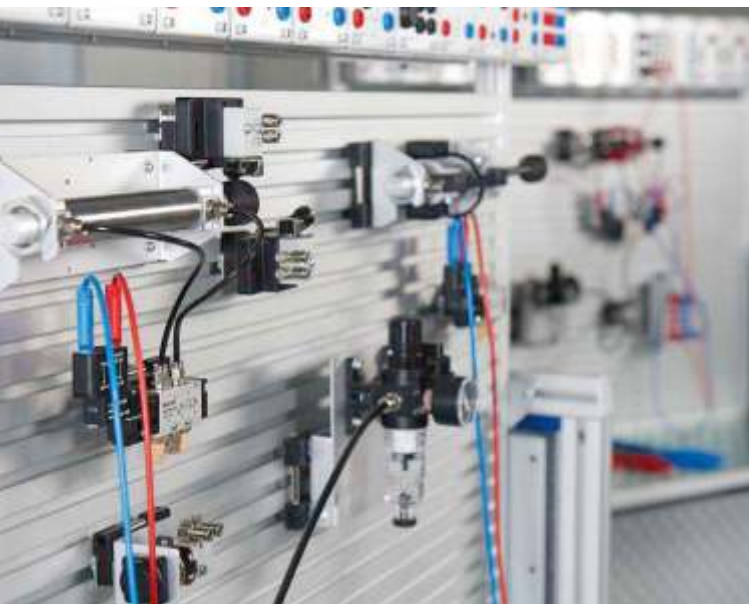
Language : English

Duration : 40 Hrs

Prerequisite : Automation Technologies Intermediate

Training Location : AKGEC BOSCH, India

Certification Partner : BOSCH Rexroth



# Teaching & Learning Media

- Multimedia Presentation
- Cut Sections / Transparent Models
- PC Animations
- Circuit Simulation on Trainer Kit



# The perfect balance between theory and practice ...



# 40 : 60



## Centre Activities



## CONTACT INFORMATION

### AKGEC-BOSCH Centre of Competence Automation Technologies

#### AKGEC SKILLS FOUNDATION

AKGEC Campus

27th Km Stone, NH-24, Delhi - Hapur Bypass Road  
Adhyatmik Nagar, Ghaziabad - 201009

+91-9910249199, 8743879879

[www.akgec-bosch.org](http://www.akgec-bosch.org) | [www.akgecskills.in](http://www.akgecskills.in)

[info@akgec-bosch.org](mailto:info@akgec-bosch.org)

[www.facebook.com/bosch](https://www.facebook.com/bosch)

To know more about Training, Research & Consultancy  
Call Us at: +91-8802965935, +91-9654597500

TOLL FREE : 1800-3000-6484

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