



SHASHIDHAR
SPARES PRIVATE LIMITED



SRP Group of Companies

Rexroth
Bosch Group

Bosch Automation Technology Center: (Hydraulics, Pneumatics, PLC, Sensorics, Drives, Mechatronics)



Hydraulics

Basic Hydraulics - Course Content

- What is 'Hydraulics'?
- Physical fundamentals and principles
- Hydraulic components (pumps, motors, cylinders, valves: directional, pressure, flow; accessories)
- Fluid power symbols as per DIN ISO 1219



- Basic hydraulic circuits
- Instructions, guidance, and review for practical hydraulic aspects
- Techniques of assembly, disassembly and conversion; possibilities for handling and setting of typical components
- Practice by self-trial of circuit making on demonstration power pack
- Instructions on storage, commissioning, trouble shooting, maintenance and safety
- Overview of proportional hydraulic technology

Proportional Hydraulics - Course Content

- Brief review of conventional valves
- Theoretical aspects of proportional hydraulics
- Component design of :
 - proportional directional, pressure & flow control valves
 - directional servo and pressure servo valves and electro hydraulic controls for pumps
- Symbols as per DIN ISO 1219
- Electronic controls, PLC applications
- Typical continuous control hydraulic circuits
- Instruction on commissioning, filtration, maintenance and Servicing (with videos on proportional valves and servo valves) and trouble shooting

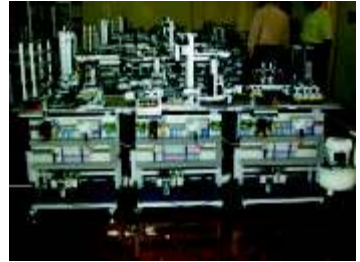
Pneumatics - Course Content

- Elements in a Pneumatic System
- Air Preparation & Distribution
- Cylinders & Valves Their working and interactions
- Electro-Pneumatic Control Technology
- Pneumatic & Electro-Pneumatic Latches and their applications
- Pneumatic & Electro-Pneumatic Circuits with practical aspects
- Maintenance & trouble shooting
- Safety aspects.



Mechatronics - Course Content

- Overview of hydraulics, pneumatics, electronics
- Concept of assembly and conveying systems
- Configuring of mechanical equipment & electronic controls for assembly & conveying systems
- PLC technology and programming



Electric Drives & Controls - Basics

- Introduction to Rexroth Automation Products - Electric Drives and Controls
- Types of PLCs , HMIs, Drive and CNC systems
- Applications - Introduction
- Installation of Indraworks and VI-Composer



PLC L10 & L20

- Introduction to Indraworks and basic setup Indraworks / Indralogic Indralogic settings
- Elements of POU - PRG/FB/FUN
- Programming languages - LADDER / Function block diagram/ instruction List / structure text
- Variables declaration - Local and Global variables
- Subprograms calling and program download & upload
- Memory structure and export and import of project data
- Task configuration and project archiving



Motion Logic in the Drive – MLD

- Introduction to Indradrives
- Drive parameterisation
- Introduction to drive inbuilt PLC
- PLC Open function blocks
- Axis Structure
- Reading and writing drive parameters using FBs
- Direct access variables
- IO configuration on CCD (Master <--> Slave)
- Synchronization Reading drive trouble shooting manual
- VCP communication



CNC - MTX Micro

- Introduction to CNC system
- Creating the project
- Configuration
- Drive parameterization
- Introduction to channel and axis gateway signals - NC to PLC and PLC to NC signal & PLC Logic Structure
- Manual mode explanation and error messages
- Introduction of M-Codes, G-Codes
- Part Programming, Subroutines, Standard Cycles

Key notes on the centre

- The primary objective of the centre is to bridge the Gap between the Industries and the Academics
- The centre will function on the concept of Institute in an institute concept.
- Centre will cater to the needs of Polytechnics, Vocational Institutes and Engineering Institutes.
- The centre has its own faculty, Trained by Bosch Rexroth both in India and in Germany
- The curriculum is developed by Bosch Rexroth, which will bring the students to the level of technology found in the modern industries
- The centre will focus on Hands on training to the Students and Faculty members in the region in the field of automation.
- The centre has fully integrated training programs in the Field of Automation Technologies.
- Automation technologies are found in most of the industries - Automotive, Machine tools, Manufacturing, Process industries, Renewable energies, Aerospace, Metallurgy, Power.



Please contact us at below address in case of inquiries.

Authorised Distributor in India



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