

About CRISP

CRISP is established under Indo-German Cooperation agreement as an autonomous organisation of the Dept. of Technical Education and Skill Development, Govt. of M.P.

CRISP provides technical training and consultancy services for Industry Personnel, Government Officers, Faculties of academic and teaching institutions, Students and Jobseekers. CRISP is equipped with the state-of-the-art equipment and technology, latest software, qualified, trained and experienced trainers in the relevant fields.

CRISP has its head office in Bhopal and training centres at several national and international locations.

Other training programmes in Mechanical Engineering offered at CRISP are :

- AutoCAD
- CAD/CAM - CATIA/UGNX/ Pro-E
- AutoCAD Electrical/Mechanical/ Civil
- CNC Technology
- Car Mechatronics
- Industrial Pneumatics
- Mechanical Maintenance
- Industrial Hydraulics & Pneumatics



Patron Clients of CRISP



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(Established under Indo-German Technical Co-operation)

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INDUSTRIAL HYDRAULICS



...unleashing the full potential of men & machines

INDUSTRIAL HYDRAULICS



Introduction of Course

The field of fluid power technology has been revolutionised due to integration of electronics as a control medium for hydraulic components and systems.

With increased sophistication of hydraulics and allied fields of engineering, the hydraulically driven machines are now able to generate more power and operate at high accuracy in speed, force and position control.

This course of Industrial Hydraulics will upgrade the knowledge and skills of the participants to operate and maintain a wide variety of hydraulic equipment and design the control systems used in industries.

Course Contents

- **Fundamentals of Hydraulics:**
- **Hydraulic system accessories:**
Reservoirs, filters, coolers, Instrumentation and accumulators.
- **Hydraulics Pumps:**
Pumps basics, centrifugal pumps, positive displacement pumps: gear, vane, piston. performance and testing of Hydraulic pumps.
- **Pressure control:**
Relief, reducing, regulating valves, Flow control : FCV, flow dividers, Non return valves.
- **Actuators:**
Linear actuators, hydraulic motors,
- **Direction control valves:** Direct operated, pilot operated, ISO symbol, circuit design and hydraulic circuit reading.
- Principle & Construction of solenoid valves, Speed control methods, sequencing, synchronizing methods and hydrostatic drives.

- Testing & tuning, adjustments of proportional and servo valves for gain, null position, dead band, ramp settings, response settings, set point.
- Evaluation of hydraulic circuits for plant & Mobile equipments machinery.
- **General troubleshooting:**
- **Hydraulic fluids:**
System hygiene, effective filtration, cleanliness codes, filter selection, flushing & Cleaning procedure.
- **Hoses & seals construction :**
Replacements, upkeep and failure causes.

Methodology

The programme consists of a mix of :

- Lectures & presentations
- Demonstrations
- Interactive discussions
- Hands-on practice

Pre-requisite

- Industry personnel with relevant experience.
- Passouts or students pursuing Degree/ Diploma in Mechanical/ Production/ Instrumentation Engineering or equivalent.

Duration

Full time: 5 working days (7 hours/day)

Part time: Four weeks (20 working days, 2 hours/day)

Course Fee

Kindly refer to our training calendar at www.crispindia.com or can be obtained from CRISP counselling desk

Mode of Payment

Cash / Online / Debit / Credit Card