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.

Other training programmes in the area of Electrical and Electronics offered at CRISP are :

- MATLAB
- WinCC SCADA
- RS View32 SCADA
- PLC Networking
- Industrial Automation
- Fiber Optic Networking
- Electronics Maintenance
- Embedded System Design
- Field Instrumentation and Control
- PLC Programming and Application
- Electrical Control and Relay Logic Application

Patron Clients of CRISP

ACC, adani, Aditya Birla Group, Andritz Hydro, BHEL, CTH, GM, GKN Driveline, HEG, Hindustan Zinc Limited, HCL, Jaypee Cement, Jindal Steel & Power, JK Lakshmi Cement, Mahindra, NHPC, NMDC, NTPC, Norgren, P&G, TNPL, Tata International, TVS, Telcon, Sandvik, SRF, UltraTech Cement

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TB 208/Issue 02/Rev.01

CRISP
ISO 9001: 2015

POWER ELECTRONICS AND INDUSTRIAL DRIVES

...unleashing the full potential of men & machines

POWER ELECTRONICS & INDUSTRIAL DRIVES

Introduction of Course

Application of Electrical motors range from simple applications like controlling the speed of fans or pumps for energy conservation, to complex applications like variable speed-and-tension control.

For achieving variable speed control of electrical motors driving various types of industrial loads, electrical drives are becoming more and more popular.

Solid state drives using thyristors and IGBT are gaining popularity due to their reliability, compactness and capability of precise control. Digital drives are rapidly replacing analog drives, owing to their improved static and dynamic control capabilities. In view of above developments, it is essential that engineers and technicians from industries and institutions should have adequate familiarization with modern AC and DC drives.

CRISP has established facilities to impart training on Power Electronics and AC/DC Drives. This lab is equipped with:

- Siemens Master Drive 6SE70 (AC Drive)
- Siemens DC Master 6RA70 (DC Drive)
- CG Emotron VFX 2.0 (AC Drive)
- Allen-Bradley PowerFlex 70 Vector (AC Drive)
- Siemens Sinamics S120 Digital (AC Drive)
- ABB ACS 550 Digital (AC Drive)
- Schneider Altivar 312 (AC Drive)

Course Contents

- Power Electronic Devices, BJT, IGBT, MOSFET, Thyristors
- Rectifier and Inverter Bridge Circuits
- Operational Amplifier and their application circuits
- AC and DC Motor Fundamentals for variable speed control
- Single and Four Quadrant Operation of DC Drives
- DC Drive control Block Diagram
- Installation, Commissioning and Troubleshooting of Digital AC/DC Drives
- AC Drive Topologies

  Power Circuit - Voltage Source, Current Source, PWM

  Control Algorithms -V/f, Sensorless Vector, Vector Control
- Features available in modern AC Drives
- Selection, Installation and Parameterization of AC Drives
- AC and DC Drive Applications Issues

  Constant Torque and Constant Power Operation

  Master slave configuration,

  Energy Saving in Fan and Pump Drives

Methodology

The programme consists of a mix of :

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

Pre-requisite

- Industry personnel with relevant experience
- Passouts or students pursuing Degree / Diploma in Electronics/ Electrical/ Instrumentation Engineering or equivalent

Duration

Full time: 5 working days (6 hours/day)

Part time: 3 weeks (15 working days, 2 hours/day)

Course Fee

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

Mode of Payment

Cash / Online/ Debit/ Credit Card