SVKM'S NMIMS Deemed to be UNIVERSITY

FOR WHOM
- Manufacturing, Design, Automation, Control and Maintenance Engineers
- Academics and teachers in Mechanical, Electronics and Control Engineering, Automation, Robotics and Mechatronics

WHEN
- **Hydraulics**: January 27-29, 2014
- **Pneumatics**: February 22-24, 2014
- **PLC and Sensorics**: March 22-24, 2014

WHERE
- At the BOSCH Centre of Excellence in Automation, at the **NMIMS Shirpur campus**, a Rupees 5-crore facility completely equipped with modern engineering workstations, working robots and a live mechatronics assembly line
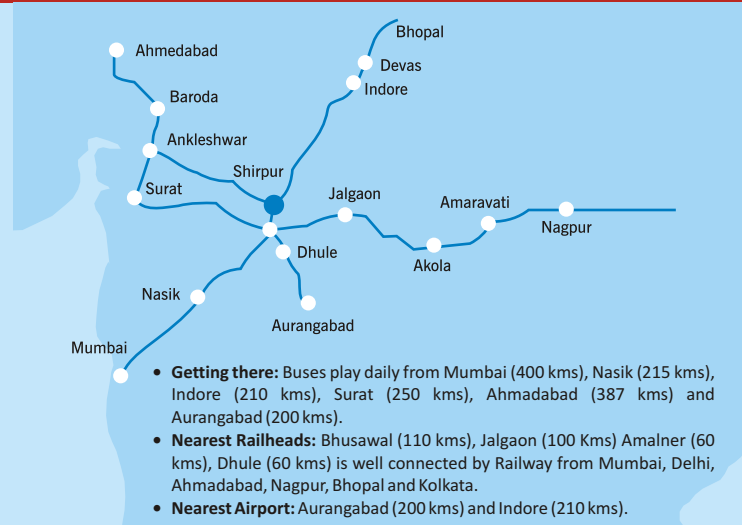
COURSE OBJECTIVE
- To help and bridge the gap between formal education in automation and the demand of Industry
- To cover basics as well as control system design technologies to ensure industry's return on investment in automation is assured
- To provide both engineering concepts, interaction with experts and hands-on exercises in over 20 hours—*in three modules*

FACULTY
A team of senior NMIMS faculties and technical assistants with interdisciplinary background and extensive theoretical and hands-on training done at the BOSCH-Rexroth Centre of Industrial Automation at Mysore, and at BOSCH-Rexroth Centre in Germany.

COURSE MATERIAL
In order to help participants to understand the concepts discussed better, a summary of contents will be provided at the beginning of each lecture. A text on Robotics is included.

- **Getting there:** Buses play daily from Mumbai (400 kms), Nasik (215 kms), Indore (210 kms), Surat (250 kms), Ahmadabad (387 kms) and Aurangabad (200 kms).
- **Nearest Railheads:** Bhusawal (110 kms), Jalgaon (100 Kms) Amalner (60 kms), Dhule (60 kms) is well connected by Railway from Mumbai, Delhi, Ahmadabad, Nagpur, Bhopal and Kolkata.
- **Nearest Airport:** Aurangabad (200 kms) and Indore (210 kms).

REGISTRATION FORM

Name in Capital: _____

_____

Designation: _____

Organization's Address: _____

_____

_____

PIN Code: _____ Ph: _____

Mob. No.: _____

E-mail ID: _____

Fee includes Course Materials, and Board and Shared Lodging in students residence.

Save! If you register for all three modules, the total fee is Rs. 20,000/-.

Mail with draft in favour of **SVKM's NMIMS** to
Prof. S. S. Patil, Course Coordinator,
BOSCH Automation Program, SVKM's NMIMS
Shirpur Campus, NH3 Bombay-Agra Road, Shirpur,
Dt. Dhule, MH 425405 • Shashikant.patil@nmims.edu
Mobile: 09689842277. Tel.: 2563-286545-51

Mosaic Design Ideas

presents

World Class
hands-on
training in
Automation

on

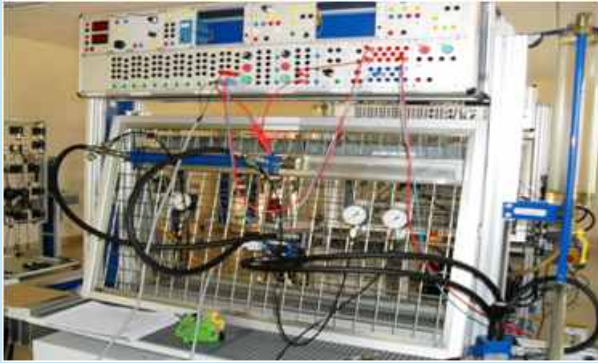## Original German BOSCH Equipment

at

**BOSCH Centre of Excellence in Automation,
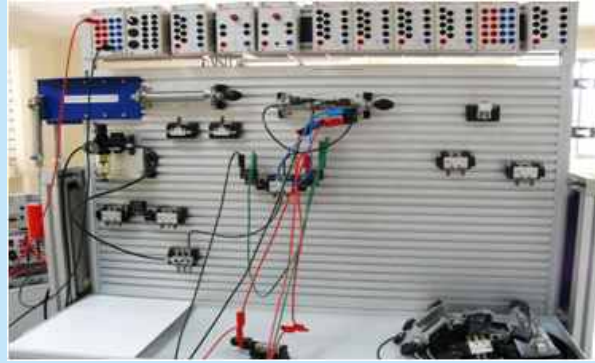SVKM's NMIMS University, Shirpur**

Module 1: Hydraulics
January 27-29, 2014
Course Fee: Rs. 7500.00

COURSE COVERAGE

- Fluid flow fundamentals
- Components of hydraulic systems-pumps, motors, values and accumulators
- Hydraulic circuit building
- Maintenance of hydraulic systems

TYPICAL APPLICATION AREAS

Heavy Equipment, Excavators, Hydraulic cranes, Material Handling equipment, Jacks, Brakes, Steel Making and Primary Metal Extraction, Plastic Processing Machinery, Machine Tool Industry, Agricultural Tractors, Earth Moving Equipment, Vehicles and Industrial Tractors, Furnace Equipment

Module 2: Pneumatics
February 22-24, 2014
Course Fee: Rs. 7500.00

COURSE COVERAGE

- Introduction of Pneumatics and its application
- Pneumatic circuit building
- Direct and indirect control of cylinders
- Signal processing in pilot operated pneumatic circuits
- Pneumatic timers
- Use of logic elements and limit switches

TYPICAL APPLICATION AREAS

Clean Processes, Pharmacy, Food Processing, Mechatronics, Robots, Wood Industry, Paper Industry, Printing and Processing Machines, Automation Technology, Automobile Industry, Packaging, Hazardous Processes, Pharma, Mechatronics, Robots

Module 3: PLC Programming and Sensorics
March 22-24, 2014
Course Fee: Rs. 7500.00

COURSE COVERAGE

- Interfacing to the PLC, the drive and the operating panel
- Creating new variables
- Creating new teach points
- Input of motion programs
- Programming a complete motion sequence
- Troubleshooting

TYPICAL APPLICATION AREAS

Process Automation, Sequencing, Repetitive Execution of Tasks, Assembly Line Operation, Continuous Bottle-filling System, Batch Mixing System, Speed Control of DC Motor, 3-stage Air Conditioning System, Automatic Frequency Control Of Induction Heating, Every Automation Industry Including Automobile, Pharma and Electronics, Power Generation