









# **Mechatronics & CNC**







## **Description**

Acquire practical and project-oriented laboratory skills and expertise :

Automation trainers, mechatronics trainers, CNC Machines

#### Subjects:

- ✓ Pneumatic and Hydraulic Labs
- ✓ CNC Mill, Lathe, 3D Printer, Routers
- ✓ Automation technology
- ✓ Safety Technology
- ✓ Smart Factories
- ✓ Robotics
- ✓ IMS Industrial Mechatronics System
- ✓ IPA Industrial Process Automation
- ✓ CIM Computer Integrated Manufacturing

### IMS INDUSTRIAL MECHATRONICS SYSTEM

The "Industrial Mechatronics System" (IMS) allows industrial-type automated installations of varying degrees of complexity to be modelled. IMS is a modular system that can be employed with great flexibility and the modular design also makes it easily extensible. This means that systems can be put together taking into account students' previous knowledge and can be expanded as they learn more.

#### IPA INDUSTRIAL PROCESS AUTOMATION

From closed-loop control of individual systems to flexible automation of entire processes, the various courses convey the fundamental, the principles and the properties of components used in automated processing and production plant with the aid of animations and numerous experiments involving authentic equipment. Multiple experiments cover investigation of controlled systems, determination of step responses and optimization of control loops. Training also covers the use of useful aids such as Bode and Nyquist plots in authentic experiments.

#### **AUTOMATION TECHNOLOGY**

From closed-loop control of individual systems to flexible automation of entire processes, the various courses convey the fundamental, the principles and the properties of components used in automated processing and production plant with the aid of animations and numerous experiments involving authentic equipment. Multiple experiments cover investigation of controlled systems, determination of step responses and optimization of control loops. Training also covers the use of useful aids such as Bode and Nyquist plots in authentic experiments.