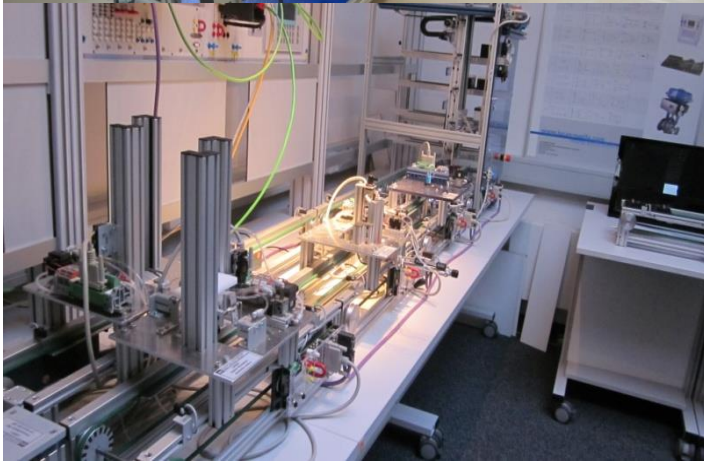


Mechatronics



Contents

- ❖ Basic knowledge in the areas pneumatics, mechanics and electrical engineering
- ❖ Basic structure of Mechatronics systems
- ❖ Components of electro-pneumatic, electro-hydraulic and electrical drives
- ❖ Components of pneumatic, electro-hydraulic and electric actuating elements and controls
- ❖ Signal preparation and sensor technology, field bus technology
- ❖ Technical documentation and operating instructions of Mechatronics systems
- ❖ Exercises on the programming of Mechatronics functions by means of PLC according to IEC 61131-3 in sequential function chart
- ❖ Control of drives by means of programmable logic controls
- ❖ Development of safety functions in Mechatronics systems

Learning targets

- ❖ Knowing advantages of pneumatic, hydraulic and electrical drives
- ❖ Understanding the functions of automation systems and using and applying them in a targeted form
- ❖ Understanding the function of electrical, pneumatic and hydraulic operating diagrams
- ❖ Knowing requirements on the safety technology and health