



Modern Systems of Manufacturing and Maintenance



FACULTY	<i>Faculty of Engineering</i>
FIELD OF STUDY	<i>Industrial Engineering</i>
LANGUAGE	<i>English</i>
DEGREE AWARDED	<i>Master of Science (MSc)</i>
DURATION	<i>4 semesters/2 years</i>
CREDIT POINTS	<i>120+10 ECTS</i>

OBJECTIVES

- Opening up to the new and innovative tendencies in the specialized field by systematic updating of the knowledge in the field of manufacturing and maintenance systems
- Configuration of specific manufacturing systems and their maintenance in line with Industry 4.0 and Future Factory concepts
- Use in the educational activity of the new information and communication technologies, as well as the preparation of the graduates for the future professional / media / social media behaviors
- Applying an educational and scientific approach to the field of manufacturing systems and their maintenance with transdisciplinary values through connection with the specific disciplines of industrial digital manufacturing, optimization of processes in industry and quality and innovation management.

GRADUATES

- Proper software identification its use principles and techniques by which it generates the sought results
- Working with scientific foundations, systems theory and engineering of embedded systems
- Thorough knowledge of the theories, methods and principles of design and development of manufacturing processes, their components and logistics of the industrial automation
- Deep knowledge of the sources innovation of components and objectives and technology transfer issues
- Appropriate use of their specific language
- Operating with engineering-specific fundamentals of quality management systems in industrial environments
- Proper identification of the solution, principles and techniques of realization of maintenance operations in industrial systems

MAIN TEACHING AREAS

Engineering Optimization Methods; Design of Experiments; Innovation Practice; Project Management; Digital Enterprise; Research / Practical Activity 1; Siemens PLM Software: Process Designer; Industrial Robot Applications in Manufacturing Processes; Digital Modelling and Fabrication; Computer Aided Design of Jig and Fixture; Total Quality Management; Embedded Systems for Monitoring and Control; Siemens PLM Software: Process Simulate; Technology Diffusion; R&D Management; Maintenance of Robot and CNC Machines Tool

ADMISSION REQUIREMENTS AND PROCESS, TUITION FEES

Check the information posted on the International Relations Office: http://bri.utcluj.ro/RI2_en/admitere_eu_neu.php

RESEARCH AREAS

Opening up to new and innovative trends in the specialized field through knowledge and use of parametric modeling, process, simulation and planning software; Programming and operation of integrated control systems; Design and development of manufacturing processes in automated industrial environments; Innovation practice and technology transfer management; Organization, implementation and management of quality systems in industrial environments; Planning and management of maintenance processes within industrial systems

INDUSTRIAL / ACADEMIC PARTNERS

Adiss SA, Adtech SRL, Aramis Invest SRL, B & K Electro SYSTEM SRL, Delta, Dymotec SRL, Optibelt Power Transmission SRL, Technocad SA, Universal Alloy Corporation Europe SRL

JOB OPENINGS

Mechanical Engineer Expert; Machine Building Research Engineer; Fabrication Programmer / Fabrication Launcher; Industrial Equipment's Mechanical Maintenance Specialist; Mechanical Engineer Speciality Referent; Electromechanical Design Engineer; Mechanical Engineer Designer; Specialist in the Field of Quality; Electromechanical Engineer; Machine-Tools Engineer; Mechanical Engineer; Assembly Engineer; Production Engineer; Production System Instructor.

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