Modern Systems of Manufacturing and Maintenance

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

FACULTY
Faculty of Engineering

FIELD OF STUDY
Industrial Engineering

LANGUAGE
English

DEGREE AWARDED
Master of Science (MSc)

DURATION
4 semesters/2 years

CREDIT POINTS
120+10 ECTS
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 of 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

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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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
- Admission Requirements and Process, Tuition Fees