

# Innovative Production Processes and Technological Management



**OBJECTIVES** 

The program aims at improving the knowledge of engineers in the field of Industrial Engineering for the labour market, in line with the current demands of the industrial environment. The German-language Master focuses on the development of engineers' skills in design, manufacturing, innovative technologies, management, creativity and communication, focusing on the improvement of German language skills both through the courses provided by the Technical University, and by encouraging them to attend elective courses. The department encourages the multicultural development of students by linking them to the Stuttgart University by providing scholarships. The Master is internationally recognized and will be awarded double degrees both in Technical University of Cluj-Napoca and in the University of Stuttgart.

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#### GRADUATES

- The in-depth knowledge of an area of specialization and, within it, of the theoretical, methodological and practical developments specific to the program; the proper use of specific language in communicating with different professional environments.
- Using specialized knowledge to explain and interpret new situations in wider contexts associated with the field;
- The integrated use of the conceptual and methodological apparatus, in full information conditions, to solve new theoretical and practical problems;
- Usetangibleandrelevantcriteriaandevaluation methods to formulate value judgments and substantiate constructive decisions;
- Professional and / or research design using a wide range of quantitative and qualitative methods

### MAIN TEACHING AREAS

Applied Mathematics; Virtual Fabrication;

Rapid Prototyping; Management; Computer aided Design(CAD); Computer Aided Manufacturing (CAM); Applied Mechanics; Advanced CNC manufacturing; FEMA; Communication and creativity.

### **RESEARCH AREAS**

- Innovative fabrication processes;
- Concurrent engineering in innovative products development;
- Micro technologies;
- Modern production technologies;
- Non-conventional technologies and innovative production;
- CNC fabrication technologies;
- Computer aided manufacturing;
- Technological management.

#### ADMISSION REQUIREMENTS AND PROCESS, TUITION FEES

Check the information posted on the International Relations Office: http://bri.utcluj.ro/Rl2\_en/admitere\_eu\_neu.php

# INDUSTRIAL / ACADEMIC PARTNERS

Industrial partners: Guhring SRL. PL Cluj, Robert Bosch SRL, Emerson SRL, Bielomatik Romania SRL Academic partners: University of Stuttgart, DAAD (Deutscher Akademischer Austauschdienst – German Academic Exchange Service)

## **JOB OPENINGS**

Upon completion of the study program, the students find jobs in the domain. Most of them are already working in the domain. The partner companies are interested in the students, offering opportunities for master thesis and after graduation they are interested in supporting the University in doctoral thesis. A high level of proficiency in German is an advantage, given the share of companies with German capital in the Cluj area. Also, the partnership with the University of Stuttgart gave the master program a double diploma, recognized also by the German University of Stuttgart.

#### CONTACT

Prof. Dr. Eng. Marcel Sabin Popa Faculty of Machine Building, Manufacturing Engineering Department

0264401634 marcel.popa@tcm.utcluj.ro b-dul Muncii nr. 103-105

# https://tcm.utcluj.ro