

# DIGITAL CONTROL OF MACHINE TOOLS

INTRODUCTORY LECTURE

sl.dr.ing. Sorin HERLE

- **MACHINE TOOLS**
- **NUMERICAL CONTROL**
- **CALCULATION**
- **PROGRAMMING**
- **ADVANTAGES AND DISADVANTAGES**



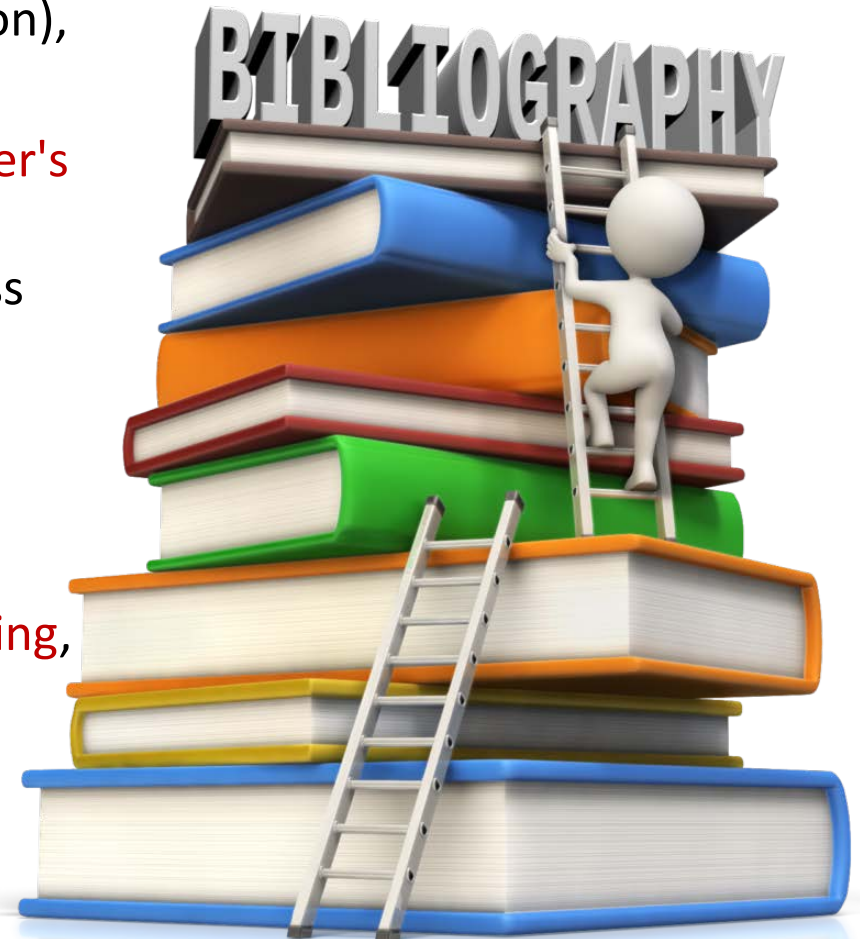
# THE COURSE CONTENT

- C1 – Introduction to CNC machine tools (26.02.2024)**
- C2 – Basics of CNC programming (04.03.2024)**
- C3 – Programming the linear trajectories (11.03.2024)**
- C4 – Programming the circular trajectories (18.03.2024)**
- C5 – Programming the milling operations (25.03.2024)**
- C6 – Programming the pocket milling operations (01.04.2024)**
- C7 - Programming the drilling operations (08.04.2024)**
- C8 – Programming the milling cycles (15.04.2024)**
- C9 – Turning operations (22.04.2024)**
- C10 – Programamming the turning operations (13.05.2024)**
- C11 – Programming the turning cycles (20.05.2024)**
- C12 – CAD-CAM systems (27.05.2024)**
- C13 – Summary of the course (03.06.2024)**

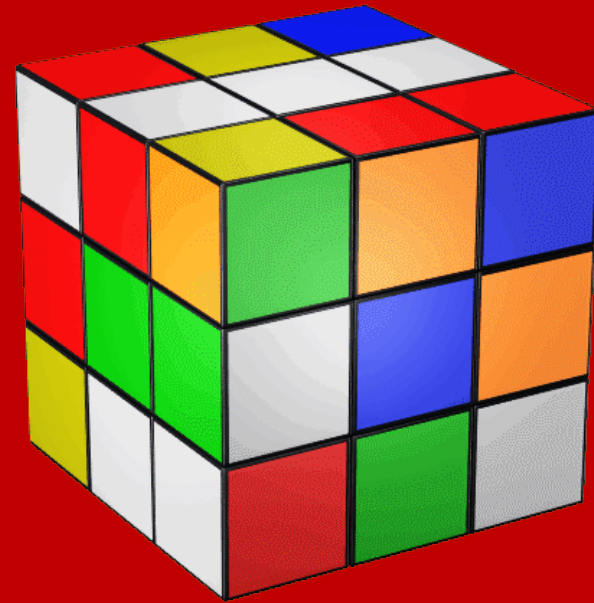
# **BIBLIOGRAPHY**

- **CNC Programming Handbook** (3rd edition), Peter Smid, Industrial Press 2007
- **CNC Programming Techniques: An Insider's Guide to Effective Methods and Applications**, Peter Smid, Industrial Press 2005
- **CNC Tips and Techniques**, Peter Smid, Industrial Press 2013
- **CNC Programming Guide: A Beginner's Guide On How To Learn CNC Programming**, Tammy L. Barraza, August 19, 2023
- **Digital Control of Machine Tools**, Sorin Herle, UTPRESS 2017

<http://rocon.utcluj.ro/sorin>



# EVALUATION



# COURSE

**50%**

Post-lecture quizzes (10 choice question/quiz/lecture, 1 point /right answer) or EXAM(120 choice questions and exercises)

# LABS

**50%**

12 laboratories evaluated at the end of each lab (**50%**)

A laboratory work is considered passed only if a minimum 50% of the maximum score is acquired.

Choice questions and exercises on the exam are not mandatory if from the post-lecture quizzes were accumulated at least 60 points.

The exam is considered passed **ONLY** if, for each component of the final mark was obtained at least 50% of the maximum score!





# CONTACT

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