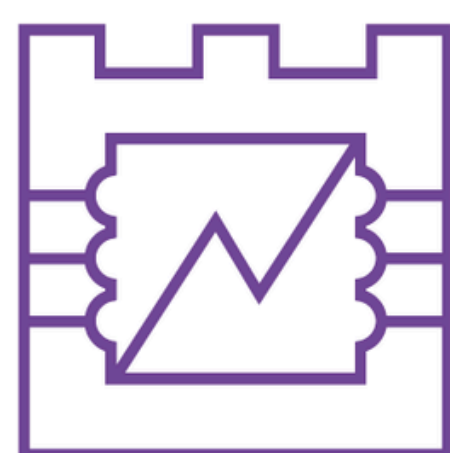




**Cracow University
of Technology**
80th Anniversary



**Faculty of Electrical
and Computer Engineering**
50th Anniversary

SUMMER SCHOOL

Design and Analysis of AC electrical machines and Entrepreneurship in Sustainable Transportation

The summer school is aimed at undergraduates and graduates of second-cycle and unified master's degree programs, doctoral schools and people working on the problems of design and modeling of AC electrical machines.



Planned training date: July 7 to 11, 2025



Place: Faculty of Electrical and Computer Engineering, Tadeusz Kosciuszko Cracow University of Technology, Warszawska 24, 31-155 Cracow



Duration: 5 days, a total of 30h of teaching conducted in English in the form of lectures and computer labs.



Lecturers:

- Prof. Claudia-Steluța Martis (Technical University of Cluj-Napoca)
- Assoc. Prof. Anca Constantinescu-Dobra (Technical University of Cluj-Napoca)



Cost of participation: FREE



Course director:

Jaroslav Tulicki, PhD
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Registration:

Grażyna Skuza
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Financial support

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DATES

Deadline for receipt of applications:
July 1, 2025

**Signing of an agreement on the terms
and conditions for charging fees for
summer school:**
July 4, 2025

Payment of fee:
July 4, 2025

DETAILS



[VISIT WEBSITE FOR
MORE INFORMATION](#)



COURSE OUTLINE					
	Day I	Day II	Day III	Day IV	Day V
	7 VII 2025	8 VII 2025	9 VII 2025	10 VII 2025	11 VII 2025
8:30-9:00	Welcome Session • Opening remarks by the organizers • Overview of the Summer School programme • Practical information for participants w				
9:00-11:15	General Aspects of AC Electrical Machines - Electromagnetic fields - Windings - Magnetic circuits	Comparative Analysis: Induction vs. Synchronous Machines - Topologies and operation - Applications and characteristics	Machine Modeling - Comparative analysis: induction vs. synchronous machines (continued)	Special Electrical Machines - Power and torque in synchronous machines - Topologies and operation	Advanced Design Approaches - Multiphysics and multilevel approach in machine design and analysis
11:15-12:15	Break	Break	Break	Break	Break
12:15-15:15	Introduction to Entrepreneurship for Sustainable Transportation (group work) - Entrepreneurial mindset – leadership, management, coaching - The Propeller Method - From market problems to solutions – idea generation	Effective Entrepreneurial Teams - Setting SMART objectives - Steps to build effective teams - Group work on achieving a business goal	Market and Customer Analysis - Value proposition - Competition analysis - Strategic market positioning - Target segments & market segmentation - Client analysis & persona model - Group work: defining and describing target markets	Marketing and Funding Strategies - Promotional strategy - Integrated communication: advertising, promotion, PR, direct sales - Group work: development of a promotional campaign - How to finance a business idea?	Final Presentations - Team project presentations - Business idea pitch with investment offer
15:15-16:00					Closing Ceremony -Summary of the programme -Completion of the evaluation survey by participants regarding the instructor’s performance and organization of the sessions - Presentation of certificates of completion - Final remarks and group photo