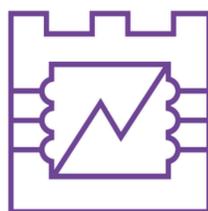




**Cracow University
of Technology**
80th Anniversary



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

SUMMER SCHOOL

Applications of IoT, Big Data and AI in medicine

The summer school is aimed at undergraduates and graduates of second-year and single master's degree programs, doctoral schools, people interested in modern digital technologies in medicine and biology. The goal of the summer school is to provide participants with advanced theoretical knowledge and practical skills in the use of modern digital technologies in medicine. The program responds to the growing demand for specialists capable of designing and implementing intelligent systems to support diagnosis, therapy and monitoring of patients' health.



Planned training date: July 15 to 18, 2025



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



Duration: 4 days, a total of 30h of teaching conducted in English in the form of lectures and computer labs.



Lecturer:

- Prof. Tran Hoai-Linh (Hanoi University of Science and Technology)



Cost of participation: 960 PLN ~ 225 EUR

DATES

Deadline for receipt of applications:
July 4, 2025

Signing of an agreement on the terms and conditions for charging fees for summer school:
July 7, 2025

Payment of fee:
July 14, 2025

DETAILS



[VISIT WEBSITE FOR
MORE INFORMATION](#)



Course director:

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Financial support

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COURSE OUTLINE

	Day I	Day II	Day III	Day IV
	15 VII 2025	16 VII 2025	17 VII 2025	18 VII 2025
8:30-9:00	<p>Welcome Session</p> <ul style="list-style-type: none"> • Opening remarks by organizers • Overview of the summer school programme • Practical information for participants 			
9:00-10:30	Introduction to IoT, Big Data, and AI	Classical AI models (cont.)	Modern deep learning AI models (cont.)	<p>Example of AI model for ECG signal classification (cont.)</p> <p>3. Signal preprocessing and feature extraction</p> <p>4. The AI model and training algorithm</p>
10:45 – 12:15	General models for smart solutions in medicine	Classical AI models (cont.)	<p>Applications of AI in medicine</p> <ul style="list-style-type: none"> • Computer vision based solutions 	<p>Example of AI model for ECG signal classification (cont.)</p> <p>5. Training and testing the models</p>
12:30 – 14:00	AI Application in medicine	Classical AI models (cont.)	<p>Applications of AI in medicine</p> <ul style="list-style-type: none"> • LLM based and AI-assisted solutions 	<p>Example of AI model for ECG signal classification (cont.)</p> <p>6. Deploying the model into portable devices</p>
14:00 – 15:00	Break	Break	Break	Break
15:00 – 16:30	<p>IoT and modern bio-signals acquisitions.</p> <p>Classical AI models.</p>	Modern deep learning AI models	<p>Example of AI model for ECG signal classification.</p> <p>1. The ECG signal</p> <p>2. Sample data sets</p>	<p>14:30 00 Closing Ceremony</p> <ul style="list-style-type: none"> • 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