

The planned program of the IEE 2025 conference

February 7–8, 2025 – DAC Headquarters (49 Thomas Mann Street, 4032 Debrecen, Hungary)

FRIDAY

11:45 – Start of conference registration

12:10 – 12:30 – Conference opening

István KOMLÓSI - DAC

Géza HUSI – UD, Faculty of Engineering

12:30 – 13:15 – **Lehel CSATÓ – Teaching the teaching-assistants: human or agent-based**

13:15 – 14:00 – **Imre HORVÁTH – We pretend to have some solutions ... but do we understand the problematics as a whole?**

14:00 – 14:20 – Coffee Break



14:20 – 14:40	Raul Florentin Drența	Advancing Engineering Education through Competency-Based Learning: Insights, Challenges, and Future Directions
14:40 – 15:00	Edít Lázár	Innovation in the teaching of the Structure Generating Matrix (SGM) in higher education
15:00 – 15:20	Codruța Bendea	Innovative teaching methods in Energy Engineering at University of Oradea
15:20 – 15:40	Imre Kocsis, Boglárka Burján-Mosoni, István Balajti	Characterization of Challenge-Based Pedagogy-Brain Maintenance for Efficient Cyber-Physical Systems Education
15:40 – 16:00	Boglárka Burján-Mosoni, Imre Kocsis, István Balajti	A Framework for the Development of the Engineering Soft Skills in Undergraduate Education

16:00 – 16:20 – Coffee Break

Session Chair: István Balajti

AI, Data, and Digital Tools in Education

16:20 – 16:40	Éva Ádámkó	Data-Driven Insight: Transforming Education Through Modern Analytics
16:40 – 17:00	Bernadett Rita Bán	Leveraging ChatGPT as a test oracle
17:00 – 17:20	Masuk Abdullah	Data Science and Artificial Intelligence in Engineering Education: Challenges, Opportunities, and Future Directions
17:20 – 17:40	Mahmoud Hassan Thullah	Integrated education with artificial intelligence for future skills with insights from international students.
17:40 – 18:00	Inti Toalombo	Learning AI and Machine Learning Assisted by AI-driven tools and E-learning Platforms

Session Chair: Imre Kocsis

Skill Development, Technology, and Pedagogy

16:20 – 16:40	Szilvia Homolya	Engineers of the future and AI: How Does Today's Mathematics Education Prepare Them
16:40 – 17:00	Rita Nagyné Kondor, Erika Rozgonyi	Spatial Skills Development for Engineering Students
17:00 – 17:20	György Budaházy, Anna Takács	MöGamT in higher mathematics education
17:20 – 17:40	Tamás Kádek	Automatic task evaluation system for operating system configuration tasks
17:40 – 18:00	Andor Nagy	Teaching engineers and operators on railway field based upon generational differences

18:00 – Scientific dinner discussion

SATURDAY

8:30 – 9:00 – Buffet breakfast

9:00 – 9:45 – **Marie DEMLOVÁ – Do we need to assess Mathematics, why and how?**

9:45 – 10:30 – **Péter KÖRTESEI – GeoGebra in Visualizing some Chapters of Mathematics**

10:30 – 10:50 – Coffee Break

Session Chair: Péter Körtesi

Fostering Creativity and Innovation in STEM

10:50 – 11:10	Balázs Kulcsár	The loss and development of creativity in the digital age
11:10 – 11:30	Mária Csernoch, Piroska Bíró, Domicián Máté	Detecting the Eight Wastes in Digital Text Management
11:30 – 11:50	Ildikó Papp	Application of Design Thinking in Engineering Education
11:50 – 12:10	Marianna Zichar	Case Study on using Inclusive Design Thinking in 3D modeling
12:10 – 12:30	Ádám Gulácsi	Removing the Burden of Syntax: Developing Computational Thinking and Algorithmic Skills of STEM Students

Session Chair: Szilvia Homolya

Innovative Practices in Engineering Mathematics and Education

10:50 – 11:10	Imre Kocsis, Dóra Sipos	Elements of the distributed knowledge transfer in engineering mathematics education
11:10 – 11:30	Csaba Kézi	Applications of mathematics in Engineering Education
11:30 – 11:50	Adrienn Vámosiné Varga, Boglárka Burján-Mosoni	On short tests measuring competencies as predictors of dropout among mechatronics engineering students
11:50 – 12:10	Gusztáv Áron Sziki	Project tasks supported by mathematical software for teaching the subject of Electromagnetism in Mechatronics Engineering education
12:10 – 12:30	Attila Szántó	The impact of vehicle development projects on the development of the practical side of education

12:30 – Conference closing – Panel discussion chair: Imre Horváth

13:00 - Lunch

