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 - Vice-President, Debrecen Regional Committee of the Hungarian Academy of Sciences

Géza HUSI – Dean, Faculty of Engineering of the University of Debrecen

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

Session Chair: Imre Horváth

14:20 – 14:40	Raul Florentin Drenţa	Advancing Engineering Education Through Competency-Based Learning: Insights, Challenges, and Future Directions
14:40 – 15:00	Edit Lázár	Innovation in the Teaching of the Structure Generating Matrix (SGM) in Higher Education
15:00 – 15:20	Codruţa Bendea	Innovative Teaching Methods in Energy Engineering at University of Oradea
15:20 – 15:40	István Balajti – Boglárka Burján-Mosoni, Imre Kocsis	Characterization of Challenge-Based Pedagogy – Brain Maintanence for Efficient Cyber-Physical Systems Education
15:40 – 16:00	Imre Kocsis – István Balajti, Boglárka Burján-Mosoni	A Framework for the Development of the Engineering Soft Skills in Undergraduate Education

16:00 – 16:20 – Coffee Break

Session Chair: István Balajti

16:20 – 16:40	Éva Ádámkó	Data-Driven Insight: Transforming Education Through Modern Analytics
16:40 – 17:00	Gusztáv Áron Sziki	Project Tasks Supported by Mathematical Software for Teaching the Subject of Electromagnetizm in Mechatronics Engineering Education
17:00 – 17:20	Masuk Abdullah	Integrating Sustainable and Ethical AI with Data Science in Engineering Education
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	Education 4.0 Assisted by AI-driven Tools

Session Chair: Szilvia Homolya

16:20 – 16:40	György Hegedűs	Artificial Intelligence and CAD Systems in Mechanical Engineering Education
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	Anna Muzsnay	Reducing Dropout Risk Through the Application of Retrieval Practice
17:40 – 18:00	Balázs Kulcsár	The Loss and Development of Creativity in the Digital Age

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 KÖRTESI – Geogebra in Visualizing Some Chapters of Mathematics**

10:30 – 10:50 – Coffee Break

Session Chair: Péter Körtesi

10:50 – 11:10	Tamás Kádek	Automatic Task Evaluation System for Operating System Configuration Tasks
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: Imre Kocsis

10:50 – 11:10	Szilvia Homolya	Engineers of the Future and AI: How Does Today's Mathematics Education Prepare Them
11:10 – 11:30	Imre Kocsis, Dóra Sipos	Elements of the Distributed Knowledge Transfer in Engineering Mathematics Education
11:30 – 11:50	Csaba Kézi	Applications of Mathematics in Engineering Education
11:50 – 12:10	Adrienn Vámosiné Varga, Boglárka Burján-Mosoni	On Short Tests Measuring Competencies as Predictors of Dropout Among Mechatronics Engineering Students
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