

FIRST CALL

MANUFACTURING-2025 CONFERENCE

Co-organised by GTE and the University of Pannonia

16-17 October 2025

Location: HUN-REN SZTAKI, 1111 Budapest, Kende u. 13–17.

The 26th annual Manufacturing Conference is organised by the two sections of the GTE (Scientific Association for Mechanical Engineering), the Manufacturing Systems and the Operator Section, together with the Sustainability Competence Centre of the University of Pannonia. The topics of the conference cover design and production engineering related to the whole life cycle of product manufacturing, as well as materials and energy technology, logistics and production management.

The aim of the conference is to present the latest research, technological innovations and practical applications of Industry 4.0 and 5.0 and sustainable manufacturing, alongside traditional manufacturing solutions. The event will provide an opportunity for academic and industry professionals, researchers and business decision-makers to share experiences, build new collaborations and exchange ideas.

The two-day event will feature plenary presentations, technical sessions and interactive workshops based on the latest challenges in manufacturing and the three pillars of Industry 5.0, with the following main themes planned:

- Digital manufacturing: industry 4.0 and 5.0; robotised and traditional manufacturing solutions in a new way (cutting, welding, casting, production management, solutions upgraded with digital technologies)
- Operator 4.0: The operator of the future, human-centred manufacturing systems, human-machine interaction, cobots, safety and reliability. Machine management techniques with cyber security
- Intelligent manufacturing systems: artificial intelligence in manufacturing
- Sustainable manufacturing and green technologies: energy efficient manufacturing, CO2 footprint reduction, circular economy
- 3-dimensional structural design
- Advanced manufacturing design methods
- Industrial automation
- Manufacturing metrology and quality assurance
- Advanced materials technologies

Detailed themes for the sessions:

- Traditional manufacturing solutions and their applicability
- Digital manufacturing systems and smart factories: digital twins, IoT, AI-based demand planning
- Human-centred manufacturing and Operator 4.0: Ergonomic workplaces, digital solutions to support operators
- Autonomous systems and robotics: collaborative robots, autonomous mobile systems
- Intelligent maintenance and quality control: AI-based monitoring, failure prevention
- Sustainable and energy efficient manufacturing: CO2 neutral plants, sustainable raw materials
- Innovation and business digitalisation: the role of start-ups and large companies, cybersecurity

The event will include:

- an industry roundtable discussion - "How Industry 5.0 is transforming manufacturing?", where representatives from large companies, SMEs and research institutes will share their experiences. The programme will also include technology demonstrations and presentations.
- Student / PhD workshop - to which you can apply with a 5-10 pages research topic summary. Proposed topics can be discussed with industry experts and leading researchers in a workshop setting
- Poster session - to apply with your own topic, presentation or research area.
- a product or service presentation

The event will provide an excellent opportunity for participants to experience the latest technologies live and build new relationships with key players in manufacturing technology. We welcome all those interested in being part of the industrial development of the future.

The event will provide an opportunity to publish the best articles selected by the Scientific Committee in Q2-Q3 journals:

- Periodica Polytechnica Mechanical Engineering
- Hungarian Journal of Industry and Chemistry (template available on the website)

If you would like to publish a one-page summary of your presentation in the conference proceedings, please send it to us in Hungarian or English (please include the title in both languages). It is also possible to publish the full text of the presentations (including figures and tables) in Hungarian or English, with a minimum of 4 pages (maximum 6 pages). Please send your abstract (template available on the website) by July 21, 2025, at the latest.

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The event is open for applications with a 15-minute presentation and/or poster presentation.

Deadlines:

Authors:

21.07.2025	abstract
01.09.2025	article
15.09.2025	review
25.09.2025	final version of the article

Participants:

21.07.2025	early bird registration
30.09.2025	normal registration

Exhibitor registration: 30.09.2025

Conference fee:

Early bird registration: €200 +VAT

Normal registration: €250 +VAT

Exhibitor fee (1 person participation included): €190+VAT

The participation fee includes: participation in the conference, listening to presentations, visiting exhibitors, 2 lunches, coffee breaks, 1 gala dinner

You can register and submit your abstract/article at www.events.gteportal.eu/manufacturing2025

For further information please contact:

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