

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE



9th International Conference on Trends in Agricultural Engineering 2025

**Proceeding of the 9th International Conference on
Trends in Agricultural Engineering 2025**

September 17th 2025 – September 19th 2025

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Czech Republic

Editor in chief: David Herák

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9th International Conference on Trends in Agricultural Engineering 2025

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The conference TAE 2025 is organised under the auspices of the Minister of Agriculture of the Czech Republic, **HE Mgr. Marek Výborný** and under the auspices of the dean of the Faculty of Engineering at the Czech University of Life Sciences Prague **doc. Ing. Jiří Mašek, Ph.D.**

Editor in chief: David Herák, Czech University of Life Sciences Prague, Czech Republic

The conference's objective is focused on research in engineering and physical sciences that represents advances in understanding or modelling the performance of biological and physical systems, bioproduction processes, and the food chain, as well as logistics systems in agriculture, manufacturing, and material systems in the design of agricultural engineering.

Conference venue:

Faculty of Engineering, Czech University of Life Sciences Prague, Kamýcká 129, Praha 6, Prague, 16521, Czech Republic

Chairman of the conference: David Herák, Czech University of Life Sciences Prague, Czech Republic

Scientific committee:

Vigen Arakelyan – *Institut National des Sciences Appliquées de Rennes, France*

Feto Berisso – *Hawassa University, Institute of Technology, Ethiopia*

Roberto D'Amato – *Universidad Politécnica de Madrid, Spain*

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Rostislav Chotěborský – *Czech University of Life Sciences Prague, Czech Republic*

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Michal Petru – *Technical University of Liberec, Czech Republic*

Alessandro Ruggiero – *University of Salerno, Italy*

Naufal B. M. Saad – *Universiti Teknologi PETRONAS, Malaysia*

Riswanti Sigalingging – *Universitas Sumatera Utara, Indonesia*

Vladislav Zubko – *Sumy National Agrarian University, Ukraine*

Simone Pascuzzi – *University of Bari Aldo Moro, Italy*

Pao Srean – *National University of Battambang, Cambodia*

All manuscripts in conference proceedings have been reviewed by the peer review process.

Reviewers:

Zdeněk Aleš, Vigen Arakelyan, Feto Berisso, Oldřich Dajbych, Roberto D'Amato, Petr Hrabě, David Herák, Gürkan Gürdil, Andrej Horas, Algirdas Jasinskas, Vytenis Jankauskas, Jaime Janairo, Augus Jupiter, František Kumhála, Marián Kučera, Martin Libra, José Machado, Jan Malaták, Čestmír Mizera, Pinio Napitupulu, Michal Petrů, Petr Novák, Václav Novák, Simone Pascuzzi, Pao Srean, Rostislav Chotěborský, Petr Šarec, Jiri Souček, Pak Kun, Riswanti Sigalingging, Abraham Kabutey, Gurkan Gurdill, Alessandro Ruggiero, Naufal B. M. Saad, Vladislav Zubko

PEER REVIEW AND EDITORIAL OVERSIGHT POLICY FOR TAE CONFERENCE PROCEEDINGS

The *Trends in Agricultural Engineering (TAE)* Conference ensures the scientific quality and integrity of its proceedings through a transparent, structured, and independently supervised editorial and peer-review process. All published contributions undergo editorial scrutiny and external peer review prior to acceptance. The entire editorial workflow is managed and overseen by the Editor-in-Chief.

Conference Topics and Scope

Papers submitted to TAE are evaluated for relevance and scientific contribution within the following thematic areas: Agricultural Engineering, Automation Technology, Biosystems Engineering, Energy and Renewable Energy, Engineering Technology, Mechanics and Materials Science, Production Engineering, Vehicles and Logistics, and related topics relevant to Agricultural Engineering.

Topics Generally Not Accepted

To maintain a high scientific and methodological standard, *TAE generally does not accept manuscripts* in the following categories:

- Simulation-only studies without experimental verification or without offering new insight into mechanisms and processes.
- Experimental reports lacking analytical interpretation or physical explanation of observed behaviour.
- Black-box statistical or AI-based approaches that do not reveal or analyse the underlying mechanisms of the process.

Only manuscripts that clearly fit within the scope and follow TAE scientific standards will be sent for peer review.

Editorial Oversight

The editorial process is fully managed by the Editor-in-Chief, who has final responsibility for ensuring the fairness, integrity, and transparency of the publication.

The Editor-in-Chief:

- conducts or delegates the initial manuscript screening;
- verifies scope, originality, scientific relevance, and ethical compliance;
- appoints independent reviewers;
- assesses author revisions and ensures all comments are addressed;
- issues all final acceptance or rejection decisions;
- ensures compliance with international publication ethics and manages conflicts of interest.

No manuscript may be accepted for publication without explicit approval by the Editor-in-Chief.

Peer-Review Process

All papers published in the TAE Proceedings undergo a double independent peer-review process.

Review Procedure

- Each eligible manuscript is assigned to two independent reviewers with expertise in the relevant scientific field.
- The review process is anonymous, objective, and based solely on scholarly merit.
- Reviewers evaluate the manuscript according to:
 - originality and scientific contribution,
 - methodological soundness and clarity,
 - quality and interpretation of results,
 - relevance to the conference topics,
 - adherence to ethical and academic standards.
- Reviewers provide a written report and a recommendation (accept, minor revision, major revision, or reject).
- Authors must revise their manuscripts in accordance with reviewer comments.
- The Editor-in-Chief reviews all revisions and makes the final publication decision.

Only manuscripts that successfully pass this full evaluation process are accepted for presentation and publication.

Responsibilities and Requirements

Editor-in-Chief

The Editor-in-Chief must:

- oversee and supervise the entire editorial and review process;
- maintain confidentiality and ethical standards;
- ensure reviewer independence and avoid conflicts of interest;
- base all publication decisions solely on scientific merit.

Editors and Editorial Committee

Editors support the Editor-in-Chief by:

- conducting initial evaluations,
- recommending qualified reviewers,
- verifying the quality of revisions,
- facilitating communication between authors and reviewers.

Authors

Authors are required to:

- submit original and unpublished work relevant to the accepted topics of TAE;
- follow formatting and ethical guidelines;

- ensure accuracy, reproducibility, and integrity of data;
- disclose funding and potential conflicts of interest;
- respond to all reviewer comments and revise their manuscripts accordingly.

Conference Organisers

Conference organisers must:

- maintain a transparent submission and review management system;
- provide administrative support to the Editor-in-Chief and editorial team;
- ensure that only approved, peer-reviewed manuscripts appear in the final proceedings.

Publication Ethics

The TAE Conference adheres to internationally recognised publication ethics standards. Allegations of misconduct (plagiarism, redundant publication, manipulated data, improper authorship) will be investigated by the Editor-in-Chief. Manuscripts may be rejected, withdrawn, or retracted if violations are confirmed.

Policy Availability

This Peer Review and Editorial Oversight Policy, including the definition of conference topics and excluded areas, is publicly available in the TAE Proceedings and on the official TAE website. It applies to all published content.

Warm Welcome to Trends in Agricultural Engineering 2025

The longstanding prestige of the Trends in Agricultural Engineering (TAE) International Conference, built over more than three decades, continues to position it as a global reference point for the rapid advancement of agriculture from an engineering perspective. TAE remains a key meeting place for professionals dedicated to progressing this essential sector across nations.

For TAE 2025, the Scientific Committee has selected a broad and diverse collection of high-quality scientific papers that highlight the newest findings, technologies, and approaches in agricultural engineering. This year's contributions reflect the evolving challenges and opportunities in agri-food systems and reinforce TAE's role as an international hub for research exchange and a forum shaping the future of agricultural production.

This edition follows the recent milestone of the 70th anniversary of the Faculty of Engineering at the Czech University of Life Sciences Prague. Since its establishment in 1952, the faculty has continued to evolve—adapting its curricula to technological progress and the practical needs of the field. Its long-standing commitment to innovation and education remains central to supporting the development of agricultural engineering and related disciplines.

The Faculty of Engineering, Czech University of Life Sciences Prague, organiser of the 9th TAE conference, is delighted to welcome you to TAE 2025. We trust that Prague, the vibrant capital of the Czech Republic, will offer you its characteristic hospitality and provide an inspiring setting for your stay and professional exchange.

Sincerely

assoc. prof. Ing. Jiří Mašek, Ph.D.
Dean of the Faculty of Engineering
Czech University of Life Sciences Prague