

Challenges and Advances in Applied Informatics: Selected Extended Papers from Three International Conferences

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Abstract

The editorial summarises the special issue that is based on contributions from three international conferences focused on mathematics, informatics, data-driven analytics, intelligent systems, and information technology. This special issue consists of seven articles.

Index Terms

ADACIS; CITA; Conference; ICRAMI; Special issue.

We are pleased to present a special issue of *Acta Informatica Pragensia*, which is derived from contributions of three international conferences. The first is the *International Conference on Information Technology in Asia* (CITA), which was held from August 5 to 6, 2025 in Kota Samarahan, Malaysia. The second is the *International Conference on Recent Advances in Mathematics and Informatics* (ICRAMI), which was held from November 20 to 23, 2025 in Sousse, Tunisia. And the third is the *IEEE International Conference on Advances in Data-Driven Analytics and Intelligent Systems* (ADACIS), which was held from November 20 to 22, 2025 in Sousse, Tunisia. Their proceedings were published by IEEE organisation (Chua et al., 2025; Aouiti et al., 2025; Kanzari et al., 2025).

The topics of the articles we have selected for this journal range from business and data analytics to the Internet of things and artificial intelligence. At the same time, these articles are relevant to applied informatics, which is also the journal's focus. Each contribution first went through the conference peer review process, and an expanded and revised version of the original conference paper then went through a new peer review process at the journal. It can be stated that each article published in this special issue has gone through a rigorous, multi-round peer review process.

From the contributions at the CITA conference, six papers were selected by the Special Issue Editors (Stephanie Chua, Phei Chin Lim, Siaw-Hong Liew, and Kim-Mey Chew) in cooperation with the Editor-in-Chief, which their authors significantly expanded and revised. Four manuscripts were rejected during the review process at Acta Informatica Pragensia. Two articles passed the review process and are published in this special issue. These are the articles:

- **Similarity Ranking-Based Instance Selection for Enhancing k -NN Classification Performances**
- **Gamification Meets Large Language Models: A Systematic Review of Applications and Challenges**

Five thematically relevant contributions were selected from the ICRAMI conference by the Special Issue Editors (Waad Alhoshan, Subrata Chakraborty, and Hakim Bendjenna) and the Editor-in-Chief. These papers were significantly expanded and revised by their authors. One manuscript was rejected during the review process, and one was withdrawn by the authors after they received the reviewers' reports. Three articles passed the review process and are published in this special issue. These are the articles:

- **PQAC-BIoMT: Post-Quantum Authentication and Access Control Framework for Blockchain-Enabled IoMT Systems**
- **Evaluation and Selection of Startup Ideas Using MCDM: A Comparative Study of TOPSIS, AHP, VIKOR, PROMETHEE II and ELECTRE II**
- **Coordination in Multi-Agent Systems: Overview of Metaheuristic Approaches**

The Special Issue Editor (Dalel Kanzari) and the Editor-in-Chief selected five contributions from the ADACIS conference. Three manuscripts were rejected during the review process at Acta Informatica Pragensia. Two articles passed the review process and are published in this special issue. These are the articles:

- **Operationalising Large Language Models for Financial Sentiment Analysis: The PipeFinePT Modular Pipeline**
- **Adversarially Robust Intrusion Detection for OneM2M-Based IoT Systems: A Real-Time Edge Security Framework**

All submitted manuscripts were thoroughly reviewed by two or three international experts in computing and informatics. The reviewers were selected by the Special Issue Editors in cooperation with Editor-in-Chief, who served as Academic Editor for all the articles. With the recommendation from the reviewers and further comments from the Special Issue Editors, the Editor-in-Chief sent the final notifications of acceptance, revision or rejection to the authors.

We hope that these carefully selected articles will find their human and artificial readers around the world. In conclusion, we express our deepest gratitude to all the contributors, reviewers, and editorial team members who made this special issue possible.

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