

Foreword

Dear Readers, Contributors, and Colleagues,

It is with great pleasure that I introduce Volume 4, Issue 1 of the Journal of Artificial Intelligence and Computing Applications (JAICA). This regular issue marks the beginning of a new volume and continues our mission to publish high-quality research that explores the intersection of artificial intelligence with practical, interdisciplinary, and socially meaningful domains.

A notable feature of this issue is its strong emphasis on the use of artificial intelligence to address complex human and societal challenges. Several contributions focus on mental health and well-being, including the detection of suicidal ideation through machine learning and the assessment of purpose in life among university students using a contextual and data-driven approach. These articles reflect the growing importance of AI-supported tools for understanding psychological risk, contextual opportunity, and student well-being, while also emphasizing that artificial intelligence should complement, rather than replace, human judgment, care, and institutional responsibility.

This issue also broadens the scope of JAICA by including short narrative reviews that examine emerging applications and challenges of artificial intelligence across different fields. One article analyzes the current role of AI in cyberattacks, highlighting both the defensive and offensive implications of intelligent systems in cybersecurity. Another explores the automated generation of multiple-choice questions using large language models, with particular attention to soft skills development and the need for expert validation. A further contribution reviews the application of LSTM models and recurrent neural networks in flood detection using satellite imagery, situating AI within the urgent context of environmental monitoring and hydrometeorological risk management.

Taken together, the articles in this issue illustrate the breadth of contemporary applied AI research. They show how artificial intelligence can support mental health screening, educational innovation, cybersecurity analysis, and environmental risk detection, while also reminding us of the methodological, ethical, and social responsibilities that accompany these technologies.

I extend my sincere thanks to the authors for their contributions, to the reviewers for their thoughtful and meticulous evaluations, and to our sponsor Maikron for their continued support in advancing JAICA's vision.

The background of the page is a complex, abstract network diagram. It consists of numerous small blue dots of varying sizes, connected by thin, light blue lines. The dots are scattered across the entire page, with some clusters and many isolated nodes. The lines form a web-like structure, with some thicker lines and many thinner ones, creating a sense of connectivity and complexity.

As we look ahead, JAICA remains committed to providing a platform for researchers, practitioners, and innovators who are working to apply artificial intelligence to the benefit of society.

Warmest regards,

Mauricio G. Orozco-del-Castillo

Editor-in-Chief

Journal of Artificial Intelligence and Computing Applications (JAICA)