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Special Issue on

Artificial Intelligence & Cyber Security

Guest Editors

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FOREWORD

This special issue of the *Journal of Information and Optimization Sciences*, features selected and peer-reviewed research contributions resulting from the **International Conference on Artificial Intelligence & Cyber Security 2026 (ICAICS-26)**. The conference brought together researchers, academicians, industry professionals, practitioners, and scholars to deliberate on recent advances, emerging challenges, and innovative applications in the rapidly evolving domains of Artificial Intelligence (AI) and Cyber Security.

Artificial Intelligence has emerged as a transformative technology with significant implications for science, engineering, healthcare, agriculture, education, business, governance, and smart infrastructure. At the same time, the growing dependence on interconnected digital systems, cloud platforms, Internet of Things (IoT) devices, and intelligent applications have resulted in increasingly complex cyber-security challenges. The convergence of AI and Cyber Security therefore presents both significant opportunities and critical challenges, requiring interdisciplinary approaches to develop secure, reliable, responsible, and resilient intelligent systems.

The research contributions included in this special issue address a diverse range of contemporary themes in Artificial Intelligence and Cyber Security. The selected works encompass advances in AI algorithms and methodologies, machine learning and deep learning, intelligent data analytics, AI applications in healthcare and agriculture, smart cities and environmental applications, business and education, as well as emerging developments in cyber-security technologies. Particular attention is given to the application of intelligent techniques for threat detection, anomaly

identification, secure communication, privacy protection, cyber-attack prevention, and the development of robust digital systems.

This special issue also reflects the increasing importance of interdisciplinary research in addressing real-world technological challenges. The integration of Artificial Intelligence with Cyber Security can enable intelligent monitoring, predictive analysis, automated decision-making, and rapid identification of emerging threats. At the same time, issues related to explainability, privacy, the ethical use of AI, data security, adversarial attacks, and the responsible deployment of intelligent technologies remain important areas for continued research and innovation.

The contributions presented in this issue demonstrate the creativity and research capabilities of scholars working across diverse areas of AI and Cyber Security. They provide valuable insights into current developments while also highlighting future research directions. We believe that the selected papers will contribute to the advancement of knowledge and serve as a useful reference for researchers, academicians, industry professionals, students, practitioners, and policymakers working in these rapidly developing fields.

This special issue is an outcome of the International Conference on Artificial Intelligence & Cyber Security 2026 (ICAICS-26) held on 6-7 March 2026, at Sankalchand Patel University Gujarat, wherein we received more than 250 papers which went through a rigorous peer review process after which only 16 papers, covering a wide range of innovative concepts, were selected for publication in this issue.

The low rate of acceptance testifies to our dedication to excellence, and we assure our readers that only the most significant contributions have been included in this special issue. We are glad to share these selected contributions, which reflect the leading edge of research and progress in the field.

We believe that this collection will serve as a valuable reference for researchers, practitioners, and policymakers, inspiring further breakthroughs in the theory and application of AI-driven IoT systems.

We extend our sincere appreciation to all authors for their valuable contributions, to the reviewers for their insightful comments and dedicated efforts, and to the editorial team for their continuous support throughout in bringing out this special issue. We are particularly thankful to Professor B. K. Dass, Chief Editor, for his constant support and encouragement during the publication process in the *Journal of Information & Optimization Sciences*, published by Taru Publications, New Delhi.

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