Preface for the Second International Workshop on Artificial Intelligence: Empowering Sustainable Development

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AISD-2024 is the Second International Workshop on Artificial Intelligence: Empowering Sustainable Development, held on October 2, 2024, and co-located with the Second International Conference on Artificial Intelligence: Empowering Sustainable Intelligence (AI4S-2024) at Alcala University, Madrid, Spain.

The workshop aims to bring together leading researchers, promising academic scientists, and research scholars to exchange knowledge and share research findings on state-of-the-art developments across various fields that support sustainability. It also provides a platform for educators, practitioners, and researchers to discuss and present the latest trends, practical challenges, and potential solutions for sustainable development. The primary focus of this workshop is to gather research papers that introduce novel techniques, showcasing the latest advances and research in the field and demonstrating how these innovations can address societal challenges.

We extend our sincere gratitude to all authors for their valuable contributions, to the reviewers for their insightful feedback (with an average of three reviews per article), which helped shape an excellent scientific program, and to the participants for enriching the discussions with their insights and experiences.

We would also like to thank our Partners, the Organizing Team, and the Program Committee members for their generous support, which has made this event possible.

AISD-2024 workshop received 23 papers wherein 10 papers were accepted after a rigorous reviewing process. From the 10 papers, 8 are accepted as long papers while 2 are considered in the short paper category. The papers presented in AISD have undergone a rigorous peer-review process, ensuring the highest quality of academic rigor and relevance. Each contribution represents not just a research endeavor but a vision for a sustainable future.

The following paper titles were accepted for publication and were also presented at the workshop:

Regular Papers:

- Predicting Solar Energy Generation with Machine Learning based on AQI and Weather Features.

- AI-Enhanced Swarm Drones: Decentralized Solutions for Sustainable Environmental Monitoring Applications.
- Insights from Data Science and Machine Learning: Understanding Global Air Quality Dynamics.

- SGKPS: A Semantic AI-Driven Strategy for Knowledge Graph Population for Sustainable Journalism as a Domain of Choice.

- Machine Learning Engine for Real Estate Price Estimation.

- AquaInsight Empowering Water Sustainability through Smart Monitoring.

- SSCKC: Strategic framework for Semantics Driven Classification and Knowledge Based Enrichment of Crime Data using the Perspective of Current and Historical News.

- Enhancing Precision Agriculture using Adaptive Machine Learning Models on Dynamic Data from Wireless Sensor Networks for Crop Monitoring.

Short Papers:

- An IoT-based blood pressure monitoring system using Support Vector Machine.

- AI for Climate Action: Enhancing Sustainable Development Through ESG Analytics

Best Paper Award

The Best paper award was decided by the panel having session chairs and by the organizers collectively and was finally awarded to:

Marck Herzon Barrion, Argel Bandala, Jose Martin Maningo, Elmer Dadios and Raouf Naguib from the **De La Salle University – Manila, Philippines and Liverpool Hope University, United Kingdom** for their paper title*,* **"AI-Enhanced Swarm Drones: Decentralized Solutions for Sustainable Environmental Monitoring Applications".**

As you explore the proceedings of AISD 2024, we invite you to immerse yourself in the innovative ideas and transformative research on AI-driven sustainable development presented within. This collection reflects the latest advancements and inspiring concepts aimed at addressing critical sustainability challenges.

We hope that these proceedings offer valuable insights and spark new ideas for the ongoing journey toward a sustainable future. Thank you for being part of this important exchange of knowledge.

Workshop Chairs

Dr. Namrata Nagpal, Amity University, India (nnagpal@lko.amity.edu)

Dr. Meenakshi Srivastava, Amity University, India (msrivastava@lko.amity.edu)

Program Committee

Fernando Ortiz Rodriguez (Universidad Autonoma de Tamaulipas, Mexico)

Sanju Tiwari (Universidad Autonoma de Tamaulipas, Mexico)

Vijaya Padmanabha (Modern College of Business and Science, Sultanate of Oman)

Narinder Singh Kharbanda, Sr. Cloud Network Engineer, Current Amazon Web Services, Inc - Herndon, VA.

Ramakrishna Garine, Supply Chain Specialist, Caterpillar Inc.