



**International Conference on Innovations in Data Analytics
(ICIDA 2024)**

*Organized by
Eminent College of Management and Technology (ECMT)*

*Technically Sponsored by:
Scientific Innovation Research Group (SIRG), Egypt
Scientific Research Group in Egypt (SRGE), Egypt
CIS lab, Argentina*

Date: 18th – 19th December, 2024 (Hybrid Mode)

***** **CALL FOR PAPERS** *****

SPECIAL SESSION

Advanced Machine Learning Models for Image Data Analytics

SESSION ORGANIZERS:



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SESSION DESCRIPTION:

The special session on Advanced Machine Learning Models for Image Data Analytics is designed to address the pressing need for innovative analytical techniques in the face of rapidly growing volumes and complexities of image data. As machine

learning, particularly deep learning, continues to evolve, new models such as convolutional neural networks (CNNs), generative adversarial networks (GANs), and transformers have significantly enhanced capabilities in image classification, segmentation, and synthesis. This session aims to showcase these state-of-the-art models and their practical applications across diverse fields, including healthcare, automotive, security, and entertainment. By exploring cutting-edge methodologies and their real-world implementations, the session will provide insights into how these advanced models are solving complex problems and improving accuracy and efficiency in image analysis tasks. Additionally, the session will address key challenges such as the need for large annotated datasets, computational resource demands, and model interpretability. Through detailed discussions, case studies, and practical demonstrations, participants will gain a deeper understanding of both the technical and practical aspects of these advanced techniques. Furthermore, the session will foster collaboration and knowledge exchange among researchers, practitioners, and industry experts, promoting interdisciplinary partnerships and future innovations. Ethical considerations and the responsible use of technology will also be examined, ensuring that advancements in machine learning for image analytics are aligned with societal values and norms. Overall, this special session seeks to inspire future research directions, address current limitations, and highlight the transformative potential of advanced machine learning models in driving progress across various domains of image data analytics.

RECOMMENDED TOPICS:

Topics to be discussed in this special session include (but are not limited to) the following:

- **Advanced Machine Learning**
- **Deep Learning Models**
- **Image Data Analytics**
- **Convolutional**
- **Neural Networks (CNNs)**
- **Generative Adversarial Networks (GANs)**
- **Image Classification**
- **Image Segmentation**
- **Model Optimization**
- **Transfer Learning**
- **Real-time Image Processing**
- **Multi-modal Data Fusion**
- **Anomaly Detection**
- **Medical Imaging**
- **Autonomous Vehicles**
- **Data Privacy**
- **Model Interpretability**
- **Ethical AI**

PUBLICATION AND SUBMISSION PROCEDURE

The conference aims at carrying out double-blind review process. The papers submitted by the authors will be assessed based on their technical suitability, the scope of work, plagiarism, novelty, clarity, completeness, relevance, significance, and research contribution. The conference proceedings will be published in **Springer LNNS Series (Scopus)**.

Website: <http://icida.ikrf.in>

Submission Link: <https://cmt3.research.microsoft.com/ICIDA2024>

Submission Deadline: **30th September, 2024**

NOTE: While submitting the paper in this special session, please specify [Advanced Machine Learning Models for Image Data Analytics] at the top (above paper title) of the first page of your paper.

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