


ICDMIS 2024

**International Conference on Data Mining and Information Security
(ICDMIS 2024)**

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

Technically Sponsored by:
Scientific Innovation Research Group (SIRG), Egypt
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Date: 7th – 8th October, 2024 (Hybrid Mode)

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

SPECIAL SESSION

Data Science Applications in Engineering Sciences and Technology

SESSION ORGANIZERS:



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SESSION DESCRIPTION:

The main objective of the session is to bring together academic and industrial experts of science, mathematics and data science community to discuss the most recent advances in applications of data science to applied sciences, to highlight key issues, identify trends, and develop a vision of the future from a design, deployment and operation standpoint.

The session aims to be a confluence of the science and engineering communities to discuss the developments in data sciences and its applications to physics, chemistry, biology, social sciences, economics and other applied sciences. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends and concerns in the area as well as practical challenges encountered and solutions adopted.

RECOMMENDED TOPICS:

1. The session will centre on the most recent advancements in the disciplines of physics, chemistry, mathematics, engineering and material sciences as well as applications of data sciences.
2. It is one of the primary platforms for showcasing the outcomes of research initiatives in pertinent fields. It aims to bring together scholars from all over the world to share the most recent research findings. The session's primary goal is to improve technology and collect significant developments in today's society, which addresses a wide range of topics related to human welfare and technology.

1. Data Science in Physics:

- Machine learning in particle physics experiments
- Data analysis in cosmological surveys
- Quantum information and quantum computing
- Data Science applications in nano technology

2. Data Science in Chemistry:

- Reaction Prediction
- Reaction Mechanism Elucidation
- Spectroscopic Analysis
- Chromatographic Analysis
- Process modelling and simulation

3. Data Sciences in Mathematics:

- Quantum machine learning
- Computational Mathematics
- Numerical methods and algorithms
- Optimization techniques
- Computational fluid dynamics and simulations
- Mathematical Modelling

4. Data Sciences in Material Sciences:

- Material Informatics
- Material property predictions

- Molecular dynamic simulations
- Phase diagram prediction and materials modelling

5. **Data Sciences in Engineering:**

- Data Science in Industry 4.0 applications
- Embedded systems through IoT and Data Sciences
- Predictive Modelling and Forecasting
- NLP in data science
- Data Governance and Ethics
- Healthcare Analytics
- Fintech Analytics
- Social Media Analytics
- Spatial and Geospatial Analytics
- Data Visualization and Interpretability
- Data science in Education
- Secure Data Sharing and Collaboration
- Cybersecurity Analytics
- Quantum – Secure Data Science
- Data Science in Cyber Physical Systems
- Block Chain engineering
- Data engineering and analysis
- Augmented Reality and Virtual Reality in collaboration with data sciences

6. **Technology for societal development**

- Responsible AI
- Ethics and Governance of Artificial Intelligence
- Assistive Technology
- Blockchain for e-governance
- Deep Learning for Medical Imaging
- Fairness, privacy, ethics, social good, transparency, accountability in vision

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)**.

Submission Link: <https://cmt3.research.microsoft.com/ICDMIS2024>

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

NOTE: While submitting the paper in this special session, please specify [Data Science Applications in Engineering Sciences and Technology] at the top (above paper title) of the first page of your paper.

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