



# First International Conference on Advanced Computing and Systems

# Adcomsys 2024

Organized by:

Department of Computer Science and Technology & Computer Science and Information Technology (CST and CSIT)

## 26th and 27th June, 2024

https://adcomsys.uem.edu.in/

All accepted and presented papers will be published by the Web of Science (WoS) indexed Springer Nature Book Series "Algorithms for Intelligent Systems" (https://www.springer.com/series/16171)





26th & 27th June 2024



**Date(s) of Conference** 



Dr. Lawrence Dalmarie - UDC, USA Dr. Karina Aragon Gaxiola - University of Waterloo, Canada Dr. Mohammad Al Azawi - OCMT, Oman Dr. Mohammed Beitsuwaflim - Sultan Qaboos University, Oman

Dr. Dena McMartin - University of Saskatchewan, Canada Dr. David deMontigny - University of Regina, Canada

Dr. Mohd Hafiz Bin Fazalul Rahiman - UMP, Malaysia

Dr. Nathalie Tourigny - University of Waterloo, Canada Dr. Marian Langbridge - SEMC, UK Dr. March - Shannon, UN, Canada

Dr. lei zhu - NREL, USA Dr. Michael Osborne - University of Oxford, UK Dr. Robert F Davis - CMU, USA

Dr. Burak O Ozdoganlar - CMU, USA

Dr. Boudreault - Mathieu, MHI, Canada Dr. Obermayer - KTU, Netherland Dr. Boukadoum - A. MMHI, Canada

Dr. Richard Linley - University of Cambridge, UK Dr. Qusay Mahmoud - Ontario Tech University, Canada Dr. Mekonnen - Gashaw, CHSAAU, Ethiopia

Dr. Gregory Dudek - McGill University, Canada Dr. Sylvie Thiebaux - ACCS, Australia Dr. Adam W. Skorek - University of Québec at Trois-Rivières, Canada

Dr. Michel Plaisent - University of Quebec in Montreal, Canada Dr. Jörg Sander - University of Alberta, Canada Dr. Erik Cambria - Nanyang Technological University, Singapore

Dr. Nathalie Japkowicz - American University, USA Dr. Liming Zhang - University of California, USA

Dr. Wudhichart Sawangphol - Mahidol University, Thailand Dr. Noraisyah Binti Mohamed Shah - University of Malaya, Malaysia Dr. Raj Jain Washington University - USA

Dr. Hadj Bourdoucen - Sultan Qaboos University, Oman

Dr. Vincenzo Piuri - Universita' degli Studi di Milano, Milano, Italy

### TECHNICAL PROGRAM COMMITTEE

Dr. Rajat Kumar Pal - University of Calcutta, Kolkata, India Dr. Mokbul Morshed Ahmad - Asian Institute of Technology, Thailand

Dr. Nabendu Chaki - University of Calcutta, India Dr. Mohd Syuhaimi Ab Rahman - NUM, Malaysia

Dr. Rajitha B - MNNITA, Prayagraj, India Dr. Shirley Devapriya Dewasurendra - University of Peradeniya, Sri Lanka

Dr. Anirban Mukhopadhyay - University of Kalyani, Kalyani, India Mr. Bidit Pakrashi - Comcast, USA Dr. Debashish De - MAKAUT, West Bengal

Dr. Sheng-Lung Peng - National Dong Hwa University, Hualien, Taiwan

Dr. Indrajit Banerjee - IIEST, Shibpur, India

Dr. Shivendra Shivani - Thapar University, Patiala Dr. Ekramul Hamid - University of Rajshahi, Bangladesh

Dr. Chintan Kumar Mandal - Jadavpur University Dr. Media Anugerah Ayu - Sampoerna University, Indonesia

Dr. Santi Prasad Maity - IIEST, Shibpur, India

Dr. Fatima Isiaka - Sheffield Halam University, United Kingdom Dr. Peter Loh Kok Keong - Nanyang Technological University, Singapore

Dr. Asish Kumar Mukhopadhyay - Prof. Emeritus, IET, BU, Jhansi, U.P

Dr. Apurba Sarkar - IIEST, Shibpur, India Dr. Jaya Sil - IIEST, Shibpur, India

Dr. Hamid Abdullah Jalab al-Tulea - UM, Kuala Lumpur, Malaysia

Dr. Chang-Biau Yang - National Sun Yat-sen University, Kaohsiung, Taiwan Dr. Surajit Kumar Roy - IIEST, Shibpur, India

Dr. David deMontigny - University of Regina, Canada Dr. Mohd Hafiz Bin Fazalul Rahiman - UMP, Malaysia

Dr. Marian Langbridge - School of Engineering & Material Science, UK

Dr. March, Shannon - University of Newfoundland, Canada Dr. Lei Zhu - National Renewable Energy Laboratory, USA

Dr. Nidul Sinha - National Institute of Technology, Silchar, Assam, India

Dr. Annapa B - National Institute of Technology Karnataka, Surathkal, India Dr. Malay Kule - IIEST, Shibpur, India

Dr. Sankhayan Choudhury - University of Calcutta, India

Dr. Sunirmal Khatua - University of Calcutta, India Dr. Pritha Banerjee - University of Calcutta, India

Dr. Rajib Das - University of Calcutta, India

Dr. Bansibadan Maji - National Institute of Technology, Durgapur, India Dr. Tanvi Agrawal - Indian Institute of Technology, Mumbai

Dr. Sahil Neelam - Punjab Institute of Technology Kapurthala, India Dr. Rik Das - Xavier Institute of Social Service

Dr. Parag Kumar Guha Thakurta - NITD, India Dr. Simon Stieber - University of Augsburg, UNA

Dr. Abdulnasir Hossen - Sultan Qaboos University, Oman Dr. Padmalochan Bera - Indian Institute of Technology, Bhubaneswar

Dr. Himadri Shekhar Dutta - Kalyani Govt. Engineering College Dr. Ahmad Zaidi bin Abdullah - Universiti Malaysia Perlis, Malaysia

Dr. Roy Eagleson - Western University, Canada Dr. Soumya Sen - University of Calcutta, India

Dr. K.K. Shukla - IIT, Banaras Hindu University, India

Dr. Julia Johnson - Laurentian University, Sudbury, Ontario, Canada Dr. Rinki Sharma Ramaiah - UAS, Karnataka, India

Dr. Tapas Si - University of Engineering & Management, Jaipur

Dr. Normi sham bt. Awang Abu bakar - IIU, Malaysia Prof. Adrian Schmidt - Burman University, Canada

Dr. Ke-Lin Du - Concordia University Montreal, Canada

Dr. Hamed Sadat mehrizi - Qazvin Azad University, Iran Dr. Rosli Bin Besar - Multimedia University, Malaysia

Dr. Saradindu Panda - Narula Institute of Technology Kolkata, India

Dr. Nirnay Ghosh - IIEST, Shibpur, India

Dr. Indranil Chakrabarty - IIIT, Hyderabad, India Dr. Arijit Banerjee - Federated Wireless, USA

Dr. Konika Das Bhattacharya - IIEST, Shibpur, India Mr. Sanjay Saha - SAMSUNG, India Dr. Rudra Pratap Ojha - G. L. BITM, Greater Noida, India

Dr Soumya Ranjan Mishra - SCE, KIIT University, Bhubaneswar, India Dr. Dhananjoy Bhakta - IIIT Ranchi, India

Dr. Mandeep K. Chawla - MCM DAV College for Women, Chandigarh, India

Dr. Karl F. Bohringer - University of Washington, USA

Dr. Gitosree Khan - BP PoddarIMT, Kolkata, India Dr Anirban Mitra - Amity University, Kolkata, India

Dr. Samya Muhuri - TIET, Patiala, India Dr. Kousik Dasgupta - KGEC, Kalyani, Nadia, West Bengal, India

Dr. Samir Kr Borgohain - NIT, Silchar, Assam, India Dr. Nassir Jabir Farhan AL-Khafaji - Technical Institute of Nasiriyah, Iraq

Dr. Bhaskar Karn - Birla institute of Technology, Mesra, India

Dr. Dhruba Jyoti Bora - MIT, Chittoor, Andhra Pradesh, India Dr. Debashree Devi - IIIT, Guwahati, Assam, India

Mr. Subham Bid - Associate at CB Tech, Deutsche Bank, Pune, India Miss. Shirsha Chakraborty - SSE, Marsh Mclennan, USA

Dr. Sandip Das - GITS, Udaipur, Rajasthan, India

Dr. Riya Sen - GITS, Udaipur, Rajasthan, India Dr. Sumana Kundu - Dr. B. C. Roy Engineering College, Durgapur, India

Dr. Ravi Kant Kumar - SRM University, Andhra Pradesh, India

Dr. Prabhat Kumar Upadhyay - Birla Institute of Technology, India Prof.Dr. Ayan Banerjee - IIEST, India

Mr. Shashwata Banerjee - HCL Technologies

Ms. Rishmita Saha - Capgemini Mr. Aritra Dutta - Accenture

Mr. Aninda Sankar Shukla - Mindshare Global

The IEM UEM group is an acclaimed educational group amongst today's industry-centred academic training organisations. IEM has set sublime standards in addressing the technical and managerial resource shortage in the new era of dynamic globalisation. The IEM UEM group has risen to fame for its strong foundation in Achief Patron teaching and R&D in multifaceted areas. It aims to serve the future generation and the Nation through its commitment towards self-sufficiency and unmatchable excellence. University of Engineering & Management (UEM) aims to provide an international ambience and exposure with innovative teaching techniques and courses which are tailor-made (technical & soft skills) for the job market giving the students the winning edge and competitive advantage during placements.

The International Conference on Advanced Computing and Systems (AdComSys) will foster an excellent international forum for exchanging knowledge and the recent developments in theory, methodologies and applications in Artificial Intelligent (AI) systems, Internet of Things (IoT) systems, Cybersecurity and Blockchain systems and emerging computing techniques. The AdcomSys aims to encourage the intense dialogues between academia and industry to bridge the gap between scholarly research, industrial initiatives and governmental policymaking. AdComsys 2024 will attribute to the diverse spectrum of keynote addresses, technical tracks, panel discussions and industry exhibits where academia can view state-of-the-art findings from the trials and interoperability experiments. Furthermore, the industry will benefit from exposure to leading-edge research and an opportunity to interact and fraternize with academic researchers on real-world issues.

The purpose of AdComSys 2024 is to solicit original research and technical papers from researchers, scientists, academicians, industry professionals and students to report their experience, new ideas and research results about advanced computing and systems to discuss the practical challenges encountered and solutions adopted.

AdComSys 2024 will be held at the University of Engineering and Management, Kolkata, on June 26th-27th, 2024.

### DOMAINS OF POTENTIAL EXPLORATION

## **Track 1: Emerging Computing**

Cloud Computing

Parallel Computing

Green Computing

Geoscience and Remote Sensing

Human Centric Computing Cognitive Intelligence

Audio, Speech and Video

Processing Quantum Computing

Track 2: Al Systems

Intelligent Systems

Generative Models

Explainable AI

→ Big Data

Active Learning

Grid Computing

Quantum Cryptography Fuzzy Systems

→ Fog Computing

Mobile Computing

Cognitive Computing

→ Biomedical and Health Informatics → Bioinformatics

Al with Robotics

Featured Learning

Robotics Systems

→ Data Mining

Deep Learning

## Bio-inspired Computing

Generative Adversarial Network

# Al-based Image Processing

Meta Learning

→Soft Computing

→ Dew Computing

Digital Forensics

Pervasive Computing

Industrial Informatics

Affective Computing

Evolutionary Computation

Neuromorphic Computing

Reinforcement Learning

Data Analytics Systems

Automation

### Track 3: IoT Systems

NLP-based Smart Systems

→ IoT in Healthcare

→ IoT in Everything

Smart Contracts

Crypt Analysis

Cybernetics

→ IoT in Agriculture

Human Activity Recognition

→ IoT in Vehicular Network → IoT in Underwater Surveillance

Wireless Sensor Networks → AlloT

→ 5G & beyond 5G → Industry 4.0

Forensics

→ IoT in Industry

→ IoT in Smart City

Security, Privacy, Attacks, and

### Track 4: Cyber Security Systems and Blockchain

Blockchain Authentication

Cryptocurrency

Encryption Techniques

→ Security in IoT Blockchain-based Machine Learning Dependable and Secure Computing

PAPER SUBMISSION LINK

Authors are solicitated to contribute to the conference by submitting articles at the above link that illustrate research results, projects, surveying works and industrial experiences that describe significant advances in computing, communication and automation.

https://cmt3.research.microsoft.com/AdComSys2024

Submission Guideline The papers must be submitted ONLINE though CMT Link. Please follow standard author instructions of Springer conference for paper format

Publication: All accepted and presented papers will be published by the Web of Science (WoS) indexed Springer Nature Book Series "Algorithms for Intelligent Systems" (https://www.springer.com/series/16171) **Mode of Conference: Hybrid mode** 

### IMPORTANT DEADLINES

**Full Paper Submission Open:** 28th August 2023 **Full Paper Submission:** 28th February 2024 6th March 2024 **Acceptance Notification: Early Bird Registration:** 25th March 2024 **Last Date of Registration:** 15th April 2024 **Final Camera Ready Paper** 1st May 2024 **Submission of Copyright:** 1st May 2024

### ORGANISING COMMITTEE

Prof. Dr. Satyajit Chakrabarti - Chancellor (University of Engineering and Management, Kolkata)

Prof. Dr. Sajal Dasgupta - Vice Chancellor (University of Engineering and Management, Kolkata)

Prof. Dr. Satyajit Chakrabarti - Pro-Vice Chancellor (University of Engineering and Management, Kolkata) Prof. Dr. Sukalyan Goswami - Registrar (University of Engineering and

Prof. Dr. Rajashree Paul - Deputy-Dean (University of Engineering and Management, Kolkata)

Prof. Dr. Kamakhya Prasad Ghatak - Dean-Engineering (University of Engineering and Management, Kolkata) Prof. Dr. Rajiv Ganguly - Dean-Science (University of Engineering and

Management, Kolkata) Prof. Dr. Abir Chatterjee - Dean-Research (University of Engineering and

### \* General Chair

Management, Kolkata)

> Technology & Computer Science and Information Technology, University of **Engineering and Management Kolkata**) Prof. Dr. Weiping Ding (Deputy Dean of School of Information Science and

Prof. Dr. Maumita Chakraborty (Department of Computer Science and

Technology, Nantong University, Nantong, Jiangsu, China) Prof. Dr. Shouvik Chakraborty (Department of Computer Science & Technology,

> Women's Polytechnic, Chandernagore, Government of West Bengal, Chandannagar, Hooghly, West Bengal, India)

Kolkata, India) \* Co-Conveners

Prof. Dr. Subhalaxmi Chakraborty (University of Engineering and Management

Prof. Dr. Sudipta Basu Pal (University of Engineering and Management Kolkata,

Prof. Dr. Maumita Chakraborty (University of Engineering and Management

Prof. Dr. Chiradeep Mukherjee (University of Engineering and Management

Prof. Sankhadeep Chatterjee (University of Engineering and Management

### Kolkata, India) \* Technical Chair

Prof. Dr. Danilo Pelusi (University of Teramo, Faculty of Communication Sciences, Teramo, Italy)

→ Prof. Dr. Valentina Emilia Balas (Aurel Vlaicu University of Arad, Romania)

Prof. Dr. Amlan Chakrabarti (A.K.Choudhury School of Information Technology University of Calcutta)

# Prof. Dr. Asit Kumar Das (Department of Computer Science and Technology, Indian Institute of Engineering Science and Technology, Shibpur)

Industry Chair ➤ Mr. Sushovan Chanda (TCS Innovation Cell)

\* Finance Chair

Organizing Committee Members

▶ Mr. Indraneel Banerjee (University of Engineering and Management Kolkata)

Dr. Srilekha Mukherjee (University of Engineering and Management Kolkata,

Dr. Panchali Datta Choudhury (University of Engineering and Management

Dr. Anirban Chakraborty (University of Engineering and Management Kolkata, > Prof. Stobak Dutta (University of Engineering and Management Kolkata, India)

Dr. Prasenjit Kumar Das (University of Engineering and Management Kolkata,

> Prof. Piyali Chandra (University of Engineering and Management Kolkata, India)

Prof. Pradipta Sarkar (University of Engineering and Management Kolkata,

Prof. Sanjukta Mishra (University of Engineering and Management Kolkata,

> Prof. Sudipta Sikdar (University of Engineering and Management Kolkata, India) Dr. Rajendrani Mukherjee (University of Engineering and Management Kolkata,

Prof. Kamalika Bhowal (University of Engineering and Management Kolkata,

> Dr. Tapas Guha (University of Engineering and Management Kolkata, India)

### REGISTRATION

### **Regular Author Student**

India/SAARC (INR)

Early Bird - 100 **Early Bird** - 4500 Regular - 5500 Regular - 150 **Regular Author Academician, PhD Scholars** India/SAARC (INR) Foreigner (USD)

**Early Bird** - 5000 Early Bird - 200 Regular - 6000 Regular - 250

**Regular Author from Industry** 

Foreigner (USD) India/SAARC (INR) Early Bird - 200 **Early Bird** - 7000 Regular - 8000 Regular - 250

**Only Attending or Accompanying** 

India/SAARC (INR) **Early Bird** - 2500 **Regular** - 2500

Regular - 80 \*All rates are exclusive of GST and other monetary transaction charges.

Foreigner (USD)

Early Bird - 80

Foreigner (USD)

### **Contact Us** Dr. Subhalaxmi Chakraborty - subhalaxmi.chakraborty@uem.edu.in

Dr. Sudipta Basu Pal - sudipta.basu@uem.edu.in Dr. Chiradeep Mukherjee - chiradeep.mukherjee@uem.edu.in Prof. Sankhadeep Chatterjee - sankhadeep.chatterjee@uem.edu.in

UNIVERSITY OF ENGINEERING & MANAGEMENT KOLKATA Address: University Area, Plot No. III – B/5, New Town, Action Area – III, Kolkata – 700160