



# 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)









## INTERNATIONAL ADVISORY COMMITTEE

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 Dr. Nor Ashidi Mat Isa - Universiti Sains Malaysia, Malaysia Dr. V.G. Tharinda Nishantha Vidanagama - WUSL, Sri Lanka Dr. Hazlie Mokhlis - University of Malaya, Kuala Lumpur, Malaysia. Dr. Ahmad Zhafran Bin Ahmad Mazlan - USM, Malaysia Dr. Nadine Akkari - Jeddah International College, Saudi Arabia Dr. Basel Barakat - University of Greenwich, UK Dr. Hosam El-Ocla - Lakehead University, Canada Dr. Mohd Asyraf Zulkifley - National University of Malaysia, Malaysia

# 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. Mohd Hafiz Bin Fazalul Rahiman - UMP, Malaysia

Dr. Tapas Chatterjee - Indian Institute of Technology, Ropar

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. 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, Silchar, Assam, 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. Rik Das - Xavier Institute of Social Service

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. 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. Sumana Kundu - Dr. B. C. Roy Engineering College, Durgapur, India

Dr. Riya Sen - GITS, Udaipur, Rajasthan, 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

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 | \*Chief 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 \*Patrons (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

Intelligent Systems

Generative Models

→ IoT in Everything

Cybernetics

NLP-based Smart Systems

Explainable AI

▶Big Data

Active Learning

Mobile Computing Cognitive Computing

Fog Computing

→ Grid Computing

Quantum Cryptography Fuzzy Systems

→ Biomedical and Health Informatics → Bioinformatics

Bio-inspired Computing

Neuromorphic Computing

Dew Computing

Digital Forensics

Pervasive Computing

Industrial Informatics

Affective Computing

Evolutionary Computation

# Track 2: Al Systems

→ Deep Learning Featured Learning

Al with Robotics

→ Data Mining

Generative Adversarial Network Robotics Systems

Al-based Image Processing Reinforcement Learning Meta Learning

→ Soft Computing Data Analytics Systems Automation

→ Industry 4.0

### Track 3: IoT Systems

→ AlloT

→ IoT in Healthcare → IoT in Industry → IoT in Vehicular Network IoT in Agriculture IoT in Underwater Surveillance → IoT in Smart City → 5G & beyond 5G Human Activity Recognition Wireless Sensor Networks

### Track 4: Cyber Security Systems and Blockchain

Security, Privacy, Attacks, and Blockchain Authentication Cryptocurrency Smart Contracts Encryption Techniques Security in IoT Crypt Analysis Blockchain-based Machine Learning Dependable and Secure Computing

### PAPER SUBMISSION LINK

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

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.

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:	6th December 2023
Acceptance Notification:	6th March 2024
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
Date(s) of Conference	26th & 27th June 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

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 Management, Kolkata)

### \* General Chair

Management, Kolkata)

Prof. Dr. Maumita Chakraborty (Department of Computer Science and > Technology & Computer Science and Information Technology, University of Engineering and Management Kolkata)

Prof. Dr. Weiping Ding (Deputy Dean of School of Information 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)

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

\*Co-Conveners

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

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

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

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

\* Organizing Committee Members 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. Kamalika Bhowal (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,

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

# REGISTRATION

**Regular Author Student** 

### India/SAARC (INR) Foreigner (USD)

**Early Bird** - 4500 Early Bird - 100 Regular - 5500 Regular - 150 Regular Author Academician, PhD Scholars

### India/SAARC (INR) **Early Bird** - 5000

Regular - 8000

**Regular** - 2500

Early Bird - 200 Regular - 250 **Regular** - 6000 **Regular Author from Industry** 

Foreigner (USD)

Regular - 250

Regular - 80

### India/SAARC (INR) Foreigner (USD) **Early Bird** - 7000 Early Bird - 200

**Only Attending or Accompanying** Foreigner (USD) India/SAARC (INR) **Early Bird** - 2500 Early Bird - 80

\*All rates are exclusive of GST

### **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