The 13th International Conference on Advances in Information Technology
Digital Transformation
Technologies Shaping and Driving the New Normal

The International Conference on Advances in Information Technology (IAIT2023) is a premier forum to present and exchange ideas about recent technological advancements and breakthrough research in Information Technology. IAIT2023 will be the 13th in the series and hosted by the School of Information Technology, King Mongkut's University of Technology Thonburi, Bangkok, Thailand. All the accepted and presented papers will be published by the reputed ACM ICPS Series having ISBN number 979-8-4007-0849-7 and indexed by all major databases like Scopus, ISI Web of Science (Thompson Reuters), Ei Compendex, etc.

The theme for 2023 is **"Digital Transformation: Technologies Shaping and Driving the New Normal"**. The COVID-19 pandemic has accelerated the growth and adoption of new technologies and digital products worldwide due to which organizations are focusing on emerging technologies like AI/ML, cybersecurity, data science, etc. The pandemic has shown us that in every sector ranging from healthcare, education, retail, finance to transportation; companies and organizations that have adopted digital initiatives and emerging technologies have become sustainable and kept themselves ahead of the learning curve. Therefore, in this upcoming edition of the conference we plan to focus on these digital transformation aspects and how these may impact the people and society. By incorporating a variety of related topics, IAIT2023 aims to create and promote more inter-departmental and inter-disciplinary research ideas and knowledge.

INTERNATIONAL ADVISORY BOARD

- **Borworn Papasratorn**, King Mongkut's University of Technology Thonburi, Thailand
- **Himanshu Thapliyal**, University of Kentucky, United States
- **Irwin King**, The Chinese University of Hong Kong, Hong Kong
- **Jonathan H. Chan**, King Mongkut's University of Technology Thonburi, Thailand
- **Lance Chun Che Fung**, Murdoch University, Australia
- **Pascal Bouvry**, University of Luxembourg, Luxembourg
- **Sansanee Auephanwiriyakul**, Chiang Mai University, Thailand
- **Simon Fong**, University of Macau, Macau
- **Thepchai Supnithi**, National Electronics and Computer Technology Center, Thailand
- **Thinagaran Perumal**, Universiti Putra Malaysia, Malaysia
- **Xiangmin Zhang**, Wayne State University, United States

GENERAL CHAIR

- **Narongrit Waraporn**, King Mongkut's University of Technology Thonburi, Thailand

PROGRAM COMMITTEE CHAIR

- **Bunthit Watanapa**, King Mongkut's University of Technology Thonburi, Thailand
- **Mark Chignell**, University of Toronto, Canada

ORGANIZING COMMITTEE

- **International Relation Chair :** Chonlameth Arpnikanondt, King Mongkut's University of Technology Thonburi, Thailand
- **Finance Chair :** Vajirasak Vanijja, King Mongkut's University of Technology Thonburi, Thailand
- **Organizing Committee Chair :** Suree Funilkul, King Mongkut's University of Technology Thonburi, Thailand
- **Publications Chair :** Debajyoti Pal, King Mongkut's University of Technology Thonburi, Thailand
- **Publicity and Virtual Exhibits Chair :** Tuul Triyason, King Mongkut's University of Technology Thonburi, Thailand

INTERNATIONAL PROGRAM COMMITTEE

- **Albena Dimitrova Mihovska**, Aarhus University, Denmark
- **Ambuj Kumar**, Aarhus University, Denmark
- **Ashish Ghosh**, Indian Statistical Institute, India
- **Badri Narayan Subudhi**, Indian Institute of Technology Jammu, India
- **Cathal Gurrin**, Dublin City University, Ireland
- **Cheong Ghil Kim**, Namseoul University, South Korea
- **Claudio Angione**, Teesside University, United Kingdom
- **Guohui Xiao**, Free University of Bozen-Bolzano, Italy
- **Indrajit Bannerjee**, Indian Institute of Engineering Science and Research, Shibpur, India
- **Jari Hautamaki**, JAMK University of Applied Sciences, Finland
- **Jean-Francois Couchot**, University of Franche-Comté, France
- **Jie Zhang**, Newcastle University, UK
- **Jose Alfredo F. Costa**, Federal University, UFRN, Brazil
- **Julia Neidhardt**, Vienna University of Technology, Austria
- **Justin Dauwels**, Nanyang Technological University, Singapore
- **Kazushi Ikeda**, Nara Institute of Science and Technology, Japan
- **Marzia Hoque Tania**, University of Oxford, United Kingdom
- **Mohammad Abdur Razzaque**, Teesside University, United Kingdom
- **Masaru Fukushi**, Yamaguchi University, Japan
- **Osama halabi**, Qatar University, Qatar
- **Pranab Roy**, JK. Laxmipat University, Jaipur, India
- **Pruthikrai Mahatanankoon**, Illinois State University, United States
- **Rajarshi Pal**, Institute for Development and Research in Banking Technology, India
- **Ruxandra L. Costea**, Polytechnic University of Bucharest, Bucharest, Romania
- **Sudip Ghosh**, Indian Institute of Engineering Science and Technology, Shibpur, India
- **Susmita Ghosh**, Jadavpur University, India
- **Worrawat Engchuan**, The Centre for Applied Genomics, Sickkids Hospital, Canada
- **Yu-Tso Chen**, National United University, Taiwan

IMPORTANT DATES

Date of Conference :	**6 – 9 December, 2023**
Paper Submission Deadline :	**25 October, 2023 (Hard Deadline)**
Notification of Acceptance :	**10 November, 2023**
Registration Deadline :	**17 November, 2023**
Camera Ready :	**25 November, 2023**

TRACK I : ARTIFICIAL INTELLIGENCE AND COMPUTATIONAL INTELLIGENCE

» AI Assistance Systems
» Ambient Intelligence
» Artificial Intelligence for Brain Informatics
» Brain Computer Interface
» Computational Intelligence in action (IoT, Medical Systems, Military Systems, Navigation Systems, Telecommunication Systems and Consumer Electronics)
» Computer Vision in Medical Informatics
» Data Analysis and Pattern Recognition
» Social Implications of Technology
» Deep learning, and emerging models

TRACK II : AUGMENTED, VIRTUAL AND MIXED REALITY APPLICATIONS

» 3D user interfaces
» 3D interaction in VR environments
» Design of Inclusive Systems
» Collaborative Thinking
» Human Modelling
» Game Design
» Creative Process
» Emotional and Affective Design
» Design for the Elderly
» Design of Inclusive Human-Machine Systems
» Inclusion for Real-world Applications
» Human diversity in the techno-sphere
» Applications of XR technologies in various domains like healthcare, education, and marketing

TRACK III : WEARABLE TECHNOLOGIES, SOCIAL AND AFFECTIVE COMPUTING

» Wearable Devices in Sports and healthcare
» Digital Human Modeling
» Emotional User Experience
» Social and Organizational Computing
» Accessibility for the Elderly
» Aesthetics for Product and System Design
» Emotional Requirements in Product and System Design
» Kansei Engineering for Product and Service
» Affective computing
» Emotional Aspects in Social Networking System
» Ubiquitous Computing
» Cognitive Systems Engineering

TRACK IV : HUMAN-TECHNOLOGY AND FUTURE OF WORK

» HCI Design Theories and Methods
» User Experience (UX) and Usability Evaluation of Emerging Technologies and Services
» Human Cyber Physical Systems Interactions
» Novel Interaction Technology
» Models for Cyber Physical Systems
» Interactions and Visualization of Data
» Emerging Ubiquitous, Handheld, and Context-aware Interactions
» Human Data Interaction with IoT
» Assistive and Companion Technologies
» Technology and Knowledge Management
» Interactive and Digital Media
» Human Factors and Human Performance Modelling

TRACK V : DIGITAL LEADERSHIP, STRATEGIES AND SMART SOCIETY

» Digital Strategy Formulation
» Agile Methodologies
» Design Thinking
» Effective Technologies for Society 5.0
» Data-driven Entrepreneurship and Sustainability
» Social Networks and Modelling Applications
» Smart Society 5.0 for Social and Technological Sustainability
» Emerging Technologies and their Applications for a New Human-centered Society
» E-governance: Economics and Development
» Smart Manufacturing
» Scalability of Digital Entrepreneurship addressing Global Challenges
» Web Intelligence and Recommender Systems

TRACK VI : CYBERSECURITY, PRIVACY AND AI

» AI/CS Security (e.g., adversarial machine learning)
» Autonomous Vehicles and Devices
» Blockchain and Distributed Ledger Security
» Cloud Computing and DevOps
» Data Governance
» Cyber Threat Intelligence
» Digital Forensics
» Privacy and Risks in VR/AR/Metaverse
» AI for Detecting and Preventing issues like Cyber-harassment, Suicide, Sexting, etc.
» Privacy-Preserving AI
» Artificial Intelligence and Cyber Analytics

TRACK VII : DATA AND SOFTWARE ENGINEERING

» Data Flow and Streaming for Realtime AI
» ETL and Data Operations on Data Lake
» Data Modelling and Engineering for Big Data
» Data-driven Decision Making
» Advancements in Agile Software Development
» AI for Software Engineering and Management