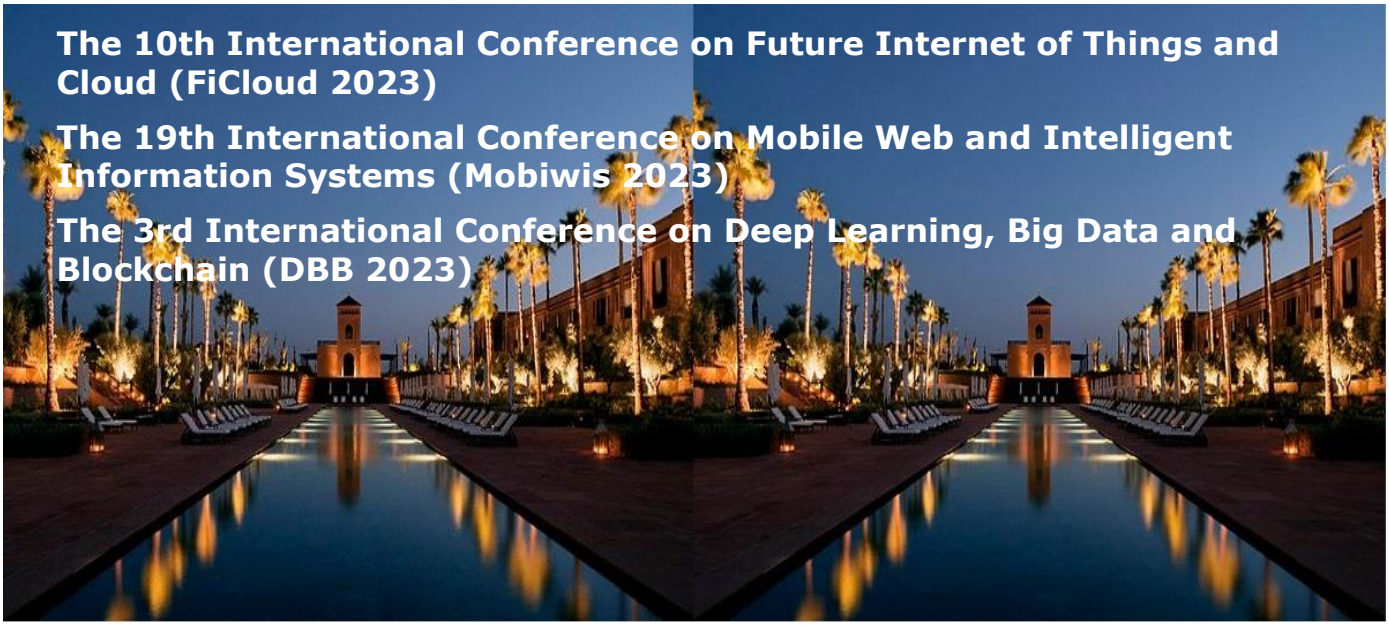
Advance Program 2023



14-16 August 2023 [Hybrid]

Marrakech, Morocco

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Advance Program 2023

General Information

- The conferences will be held onsite in Marrakech as well as online via the videoconferences service, Zoom.

- The onsite sessions will be held at the conference venue:

  Palm Plaza Hotel & Spa, Marrakech

- The online sessions will be held via Zoom. The following information is applicable to presentation via Zoom.

  - Authenticated access will be given to participants who registered for the conferences. Participants are requested to get familiarize themselves with the Zoom.

  - Paper presentations will be given in a live online format at the scheduled times, via Zoom. Check the conference program for date/time of paper presentation.

  - Each paper will have around 15-20 minutes for presentation, followed by Q/A.

  - The online delivery mode of presentations will be in a live format via Zoom

- Link to **Marrakech Time Zone**

KEYNOTE I

From Cloud to Fog and Mist Computing: Resource Allocation and Scheduling Issues

Prof. Helen Karatza

Aristotle University of Thessaloniki

Greece

Abstract:

With the exponential growth of the Internet of Things (IoT) applications and the development of smart environments, cloud computing is insufficient for transferring the huge volume of data generated by IoT sensors and devices. As a result, Fog and Mist computing have been adopted as computing paradigms to cope with transmission latency issues. Fog computing complements and extends the cloud to the network edge, closer to where the IoT data are generated in an attempt to meet the requirements of low latency. Mist computing is a lightweight form of fog computing, that brings fog capabilities even closer to the IoT layer. Most of the IoT applications are delay-sensitive and the goal is to ensure that all deadlines are met. Therefore, in such computing environments it is crucial to adopt efficient resource allocation and scheduling schemes, in order to provide timeliness for the real-time workload and to fully exploit the potential of cloud, fog and mist computing systems. In this keynote we will talk about new trends driving the development of new computing paradigms. Furthermore, novel techniques to explore challenges in resource allocation and scheduling in cloud, fog and mist computing environments will be presented and discussed.

Biography:

Helen D. Karatza (senior member of IEEE, ACM, SCS) is a Professor Emeritus in the Department of Informatics at the Aristotle University of Thessaloniki, Greece. Her research interests include cloud, fog and mist computing, energy efficiency, fault tolerance, resource allocation, scheduling algorithms and real-time distributed systems. Dr. Karatza has authored or co-authored over 250 technical papers and book chapters including seven papers that earned best paper awards at international conferences. She served as an elected member of the Board of Directors at Large of the Society for Modeling and Simulation International. She served as chair and keynote speaker in international conferences. Dr. Karatza is Senior Associate Editor of the Elsevier journal “Simulation Modelling Practice and Theory”, an Editor of “Future Generation Computer Systems” of Elsevier, an Associate Editor of IEEE Transactions on Services Computing and an Editorial Board member of Cluster Computing of Springer. She was Editor-in-Chief of the Elsevier journal “Simulation Modelling Practice and Theory”, Editor-in-Chief of “Simulation Transactions of The Society for Modeling and Simulation International”, Associate Editor of “ACM Transactions on Modeling and Computer Simulation” and Senior Associate Editor of the “Journal of Systems and Software” of Elsevier. She served as Guest Editor of Special Issues in several international journals.

KEYNOTE II

Semi-Supervised Learning, Life Long Learning and Scalable Spatio-Temporal Graph Neural Networks for Social Good

Prof Latifur Khan

University of Texas at Dallas, USA

Abstract: With regard to semi-supervised learning, various efforts have been proposed for reducing the annotation cost when training Deep neural networks (DNN). Semi-Supervised Learning (SSL) is one of the solutions that has been provably handy in leveraging unlabeled instances to mitigate the efficacy of the DNN model's performance and has been attracting an increasing amount of attention in recent times. In this work, our main insight is that semi-supervised learning can benefit from the recently proposed unsupervised contrastive learning approach, which aims to achieve the positive concentrated and negative separated representation in the unlabeled feature space. Herein, we introduce MultiCon, a semi-supervised learning paradigm that aims at learning data augmentation invariant based embedding. Experiments on multiple standard datasets including Covid19 Chest X-ray images, and CT Scans demonstrate that MultiCon achieves state-of-the-art performance across existing SSL benchmarks. In addition, we will demonstrate how semi-supervised learning can be used to identify Choroidal Tumors in Fundus Photographs and find vulnerable functions in application libraries. With regard to lifelong learning, we will monitor conflicts and political violence around the world by analyzing volumes of continuous or stream specialized text on a global scale. To help advance research in political science, we introduce ConfliBERT, a domain-specific pre-trained language model for conflict and political violence. We first gather a large domain-specific text corpus for language modeling from various sources. We then build ConfliBERT using two approaches: pre-training from scratch and continual pre-training to facilitate lifelong learning. For incremental/continual learning, deep learning models should be able to learn new information while retaining previously learned skills or knowledge, but catastrophic forgetting does happen and we will address that in this talk. Time series forecasting with additional spatial information has attracted a tremendous amount of attention in recent research, due to its importance in various real-world applications in social studies, such as conflict prediction and pandemic forecasting. Conventional machine learning methods either consider temporal dependencies only or treat spatial and temporal relations as two separate autoregressive models, namely, space-time autoregressive models. Such methods suffer when it comes to long-term forecasting or predictions for large-scale areas, due to the high nonlinearity and complexity of spatio-temporal data. In this talk, we describe how to address these challenges using spatio-temporal graph neural networks.

Biography: Dr. Latifur Khan is a full Professor in the Computer Science at the University of Texas at Dallas, USA where he has been teaching and conducting research since September 2000. He received his Ph.D.in Computer Science from the University of Southern California in 2000. He received bachelor degree in Computer Science and Engineering from Bangladesh University of Engineering and Technology. Dr. Khan is a fellow of IEEE, IET, BCS, and an ACM Distinguished Scientist. He has received prestigious awards including the IEEE Technical Achievement Award for Intelligence and Security Informatics, IEEE Big Data Security Award, and IBM Faculty Award (research) 2016. He has published over 300 papers in premier journals and prestigious conferences. Currently, Dr. Khan's research focuses on big data management and analytics, data mining and its application to cyber security, and complex data management including geospatial data and multimedia data. His research has been supported by grants from NSF, NIH, the Air Force Office of Scientific Research (AFOSR), DOE, NSA, IBM, and HPE.

KEYNOTE III

Write-Optimized Location Data Systems: Challenges and Solutions

Prof. Walid G. Aref

Purdue University, USA

Abstract:

Location data systems are write-heavy. As objects move in space and change their location, they need to write their new locations in continuous bases into the underlying location data system. Thus, location data systems need to be optimized for writes. These writes can be in the form of new inserts or updates to existing old locations. In this talk, I will highlight several challenges related to supporting write optimized location data systems and techniques to address these challenges. In specific, I will present techniques for (1) Indexing location data with frequent updates, (2) Addressing the problem of non-deterministic insert performance (the phenomenon of waves of misery in location data indexing), and (3) LSM-based techniques for handling location updates in big location data systems.

Biography:

Walid G. Aref is a Professor of Computer Science at Purdue University, USA. His research interests are in extending the functionality of database systems in support of emerging applications, e.g., spatial, spatio-temporal, graph, biological, and sensor databases. He is also interested in query processing, indexing, data streaming, and geographic information systems (GIS). His research has been supported by the US National Science Foundation, the National Institute of Health, Purdue Research Foundation, CERIAS, Panasonic, and Microsoft Corp. In 2001, he received the CAREER Award from the National Science Foundation and in 2004, he received a Purdue University Faculty Scholar award. He is a member of Purdue's CERIAS. He has been the Editor-in-Chief of the ACM Transactions of Spatial Algorithms and Systems (ACM TSAS) since 2018, an editorial board member of the Journal of Spatial Information Science (JOSIS), and has served as an editor of the VLDB Journal and the ACM Transactions of Database Systems (ACM TODS). He has won several best paper awards including a VLDB ten-year best paper award. He is a Fellow of the IEEE, and a member of the ACM. Between 2011 and 2014, he has served as the chair of the ACM Special Interest Group on Spatial Information (SIGSPATIAL).

MONDAY, 14 AUGUST 2023

09:00-09:30	Opening Session
	Conference Opening and Welcome
Onsite Room	Room 1
Online Zoom	Room1-Link

09:30-10:30	Plenary Session: Keynote 1
	From Cloud to Fog and Mist Computing: Resource Allocation and Scheduling Issues *Helen Karatza, Aristotle University of Thessaloniki, Greece*
Session Chair	
Onsite Room	Room 1
Online Zoom	Room1-Link

10:30-11:00	Coffee Break

11:00-12:30	FiCloud Session 1: Cloud Continuum and Federation
Session Chair	
Onsite Room	Room 1
Online Zoom	Room1-Link

On Enhancing the Performance of Inter-Cloud Data Transfers
Juan Contreras, Shikharesh Majumdar and Ali El-Haraki

Clouds Coalition Mitigation for Business Process Outsourcing
Amina Ahmed Nacer, Mohammed Riyadh Abdmeziem and Claude Godart

The learning costs of Federated Learning in constrained scenarios
Rafael Teixeira, Mário Antunes, Diogo Gomes and Rui L. Aguiar

High Available Hadoop Deployment Modes with Enterprise-Level capabilities
Abdellah Berkaoui and Youssef Gahi

MONDAY, 14 AUGUST 2023

11:00-12:30	MobiWis Session 1: Smart and Intelligent Systems
Session Chair	
Onsite Room	Room2
Online Zoom	Room2-Link

Factors Affecting Mobile Augmented Reality Acceptance: A Study on Traveler Information in Public Transport
Stefan Graser, Stephan Böhm, Daria Gütlich and Melissa Bodtländer

RSITS: Road safety Intelligent Transport System in Deep Federated Learning Assisted Fog Cloud Networks
Tor-Morten Grønli, Abdullah Lakhan and Muhammad Younas

Gamified DAOs as Blockchain-Based Catalysts for Prosocial and Environmentally Oriented Cities
Arturs Bernovskis, Agnis Stibe, Deniss Sceulovs, Yan Zhang and Jiajie Li

11:00-12:30	DBB Session 1: Block Chain Systems
Session Chair	
Onsite Room	Room 3
Online Zoom	Room3-Link

Distributed Ledger Technology for Collective Environmental Action
Roman Beck, Marco Schletz, Alvise Baggio and Lorenzo Gentile

Moving Towards Blockchain-based Methods for Revitalizing Healthcare Domain
Rihab Benaich, Saida El Mendili and Youssef Gahi

Design of a Tokenized Blockchain Architecture for Tracking Trade in the Global Defense Market
Mustafa Sanli

Requirements for interoperable blockchain systems: A Systematic Literature Review
Senate Sylvia Mafike and Tendani Mawela

12:30-13:30	Lunch Break

MONDAY, 14 AUGUST 2023

13:30-15:00	Plenary Session: Keynote 2
	Detecting Semi-Supervised Learning, Life Long Learning and Scalable Spatio-Temporal Graph Neural Networks for Social Good *Latifur Khan. University of Texas at Dallas, USA*
Session Chair	
Onsite Room	Room 1
Online Zoom	Room1-Link

15:00-15:30	Coffee Break

15:30-17:00	FiCloud Session 2: Healthcare Data & Applications
Session Chair	
Onsite Room	Room 1
Online Zoom	Room1-Link

A Novel Approach to Measure and Predict Digital Health Data Protection Compliant (DPC)

Davies Ogbodo, Irfan Ullah-Awan and Andrea Cullen

Health Monitor: An IoMT Based Patient Health Monitoring System Using Blockchain and k-means

Ikram El Asri, Meryeme Ayache, Soulaimane Oulad Belayachi and Hajar Laktaoui

Classification of Covid-19 Chest X-Ray Patients using Artificial Neural Network

Zuraidi Saad, Wan Muhammad Aniq Wan Ismafariza and Nurul Hazwani Abd Halim

Defense Guild: A Privacy-preserving Intrusion Detection System for Healthcare Data in Cloud

Derek Manwaring and Geethapriya Thamilarasu

MONDAY, 14 AUGUST 2023

15:30-17:00	MobiWis Session 2: Digital Systems in Healthcare Services
Session Chair	
Onsite Room	Room2
Online Zoom	Room2-Link

Harnessing the Digital Revolution: A Comprehensive Review of mHealth Applications for Remote Monitoring in Transforming Healthcare Delivery
Avnish Singh Jat and Tor-Morten Grønli

Medical Test Results Management System based on Blockchain, Smart Contracts, and NFT Technologies
Khanh Vo Hong, Huong Luong Hoang, Phuc Nguyen Trong, Khiem Huynh, Hieu Doan Minh, Bang Le Khanh, Khoa Tran Dang, Trong Nguyen Duong Phu, Hiếu Lê Văn, Duy Nguyen Truong Quoc, Loc Van Cao Phu, Kiet Le Tuan, Nghia Huynh Huu, Nguyen The Anh, Ngan Nguyen Thi Kim and Son Xuan

Intelligent Identification of Respiratory Diseases: Covid-19 and Similar Virus Cases
Dawit Teklu Weldeslasie, Mohamed Ahmed, Gebremariam Assres, Tor-Morten Grønli and Gheorghita Ghinea

15:30-17:00	DBB Session 2: Deep Learning and Healthcare Applications
Session Chair	
Onsite Room	Room 3
Online Zoom	Room3-Link

PENN: Phase Estimation Neural Network on Gene Expression Data
Aram Ansary Ogholbake and Qiang Cheng

MRIAD: A Pre-Clinical Prevalence Study on Alzheimer's Disease Prediction Through Machine Learning Classifiers
Jannatul Loba, Md Rajib Mia, Imran Mahmud, Md. Julkar Nayeen Mahi, Md Whaiduzzaman and Kawsar Ahmed

Exploring the Link between Brain Waves and Sleep Patterns with Deep Learning Manifold Alignment
Yosef Bernardus Wirian, Yang Jiang, Sylvia Cerel-Suhl, Jeremiah Suhl and Qiang Cheng

19:00-21:00	Welcome Reception & Dinner

Tuesday, 15 AUGUST 2023

09:00-10:30	FiCloud Session 3: Security, Privacy and Trust
Session Chair	
Onsite Room	Room 1
Online Zoom	Room1-Link

Semantic Evaluation of Privacy Policy Compliance in Medical Applications
Catarina Silva, João Paulo Barraca, Paulo Salvador and Nelson Rocha

Enhancing Ransomware Detection: A Registry Analysis-Based Approach
Khalid Zirari, Hamza Kamal Idrissi, Ahmed El-Yahyaoui, Hicham Bensaid and Abdeslam En-Nouaary

Zero Trust Model Implementation Considerations in Financial Institutions: A Proposed Framework
Clement Daah, Amna Qureshi and Irfan Awan

Hybrid Feature Selection (RFEML) Techniques and Intrusion Detection Systems for Web Attacks Detection Using Supervised Machine Learning Algorithms
Ibrahim Abobaker

09:00-10:30	MobiWis Session 3: SDN, IoT and Edge Computing
Session Chair	
Onsite Room	Room 2
Online Zoom	Room2-Link

Minimizing User Connectivity Costs and Latency between controllers and switch-controllers for Software Defined Networking
Andres Viveros, Pablo Adasme and Ali Dehghan Firoozabadi

Fuzzy Data Deduplication at Edge Nodes in Connected Environments
Sylvana Yakhni, Joe Tekli, Elio Mansour and Richard Chbeir

Towards Liquid AI in IoT with Web Assembly: A Prototype Implementation
Pyry Kotilainen, Ville Heikkilä, Kari Systä and Tommi Mikkonen

Tuesday, 15 AUGUST 2023

09:00-10:30	DBB Session 3: Machine Learning and Commercial Systems
Session Chair	
Onsite Room	Room 3
Online Zoom	Room3-Link

YOLOv5 for Automatic License Plate Recognition in Smart Cities
Abir Raza, Elarbi Badidi, Basma Badidi and Sarah Al Zahmi

An Investigation into Predicting Flight Fares in India using Machine Learning Models
Vishan Lal, Paul Stynes and Cristina Hava Muntean

Securing Internet of Things (IoT) Devices Through Distributed Ledger Technologies (DLTs) and World Wide Web Consortium (W3C) Standards
Sthembilke Mthethwa

Analysis and Forecast of Energy demand in Senegal with a SARIMA model and an LSTM Neural Network
Moustapha Drame, Djamal Abdoul Nasser Seck and Baye Samba Ndiaye

10:30-11:00	Coffee Break

Tuesday, 15 AUGUST 2023

11:00-12:30	FiCloud Session 4: Performance and Throughput Evaluation
Session Chair	
Onsite Room	Room 1
Online Zoom	Room1-Link

Scheduling Critical Periodic Jobs with Partial Computations along with Gang Jobs

Helen Karatza

A Cost-effective High-throughput Testbed for Supporting AI-enabled DevSecOps Services

Ulugbek Khamdamov, Muhammad Usman and Jongwon Kim

A Deep Dive into the Google Cluster Workload Traces: Analyzing the Application Failure Characteristics and User Behaviors

Faisal Haque Bappy, Tariqul Islam, Tarannum Shaila Zaman and Carlos Caicedo

An Updated Junction Tree-Based Routing for Underwater Acoustic Networks

Tuğçe Bilen

11:00-12:30	MobiWis Session 4: Mobile Interfaces and Interactivity
Session Chair	
Onsite Room	Room 2
Online Zoom	Room2-Link

Interactive Behavior Change Model (IBCM 8.0): Theory & Ontology

Brian Cugelman and Agnis Stibe

A Comparison of YOLOv5 and YOLOv8 in the Context of Mobile UI Detection

Burcu Selcuk and Tacha Serif

Urban Data Platforms as Added-value Systems for Citizens

Yasmina Tajja and Ludger Martin

Tuesday, 15 AUGUST 2023

11:00-12:30	FiCloud Session 5: IoT and Edge Computing
Session Chair	
Onsite Room	Room 3
Online Zoom	Room3-Link

Drone Edge Management System (DREMS): Sequencing Drone Takeoff and Landing

Lucas de Paula Soares, Fabíola Martins Campos de Oliveira, Carlos Kamienski and Luiz F. Bittencourt

Tiny Machine Learning Virtualization for IoT and Edge Computing using the REXA VM

Stefan Bosse and Christoph Polle

IoT Open Messaging Standards: Performance comparison with MQTT and CoAP protocols

Avleen Malhi, Asad Javed, Narges Yousefnezhad and Kary Främling

Architecture Design of an IoT-based Smart Parking System

Aqeel Ahlam Rauf, Lillian Yee Kiaw Wang, Khee Siang Bee and Wan Ru Thang

12:30-13:30	Lunch Break

TUESDAY, 15 AUGUST 2023

13:30-15:00	Plenary Session: Keynote 3
	Write-Optimized Location Data Systems: Challenges and Solutions *Prof. Walid G. Aref, Purdue University, USA*
Session Chair	
Onsite Room	Room 1
Online Zoom	Room1-Link

15:00-15:30	Coffee Break

15:30-17:00	FiCloud Session 6: Industrial Systems and Security
Session Chair	
Onsite Room	Room 1
Online Zoom	Room1-Link

Towards IoT Ambient Intelligence for Industry 4.0

Marisa Catalan, Mohamad Hjeij, Aleix Boixader, Percy Bonett, Mario Montagud, Josep Escrig, Josep Brugues, Toni Adame, Carlos Labella, Ivan Huerta and Miguel Urias

Digital Platform Concepts for Manufacturing Companies - A Review

Marcel Rojahn and Norbert Gronau

Self-sovereign Identity-based Access Control Management in Forestry 4.0

Yongli Mou, Jiahang Chen, Zhenghao Zhang, Jürgen Roßmann and Stefan Decker

Anomaly Detection for Industrial Sensors Using Transformers

Yassine Motie and Theo Flaus

Services *provision and Management used in SaaS based cloud applications*

Srinivas Vennapureddy

TUESDAY, 15 AUGUST 2023

15:30-17:00	MobiWis Session 5: Machine Learning and Stochastic Methods
Session Chair	
Onsite Room	Room 2
Online Zoom	Room2-Link

Optimisation of a Chemical Process by using Machine Learning Algorithms with Surrogate Modeling
Ozge Keremer, Fadil Can Malay, Bilgin Deveci, Pinar Kirci and Perin Unal

Granular Traceability between Requirements and Test Cases for Safety Critical Software Systems
Mounia Elqortobi, Amine Rahj and Jamal Bentahar

Maximizing Signal to Interference Noise Ratio for Massive MIMO: A Stochastic Neurodynamic Approach
Siham Tassouli and Abdel Lisser

15:30-17:00	FiCloud Session 7: Cloud, IoT and Energy Management
Session Chair	
Onsite Room	Room 3
Online Zoom	Room3-Link

Greenhouse Monitoring System for Chili Plant via IoT Cloud on Ubidots Platform
Zainal Hisham Che Soh, Muhammad Syamim Mohammad Pandi, Aini Hafizah Mohd Saod, Siti Azura Ramlan, Nur Athiqah Harron and Mohd Hanapiah Abdullah

Development of a low-cost Internet of Things architecture for energy and environment monitoring in a University Campus
Abdessamad Rhesri, Rachid Bennani, Yann Ben Maissa, Imad Hajjaji, Ahmed Tamtaoui and Hamza Dahmouni

New Solution based on Fuzzy System to Optimize Energy Efficiency in IoT Devices to Remote Monitoring of Chronic Diseases
Wesley Geraldo Sampaio Nóbrega and José Valdemir dos Reis Junior

19:00-21:00	Conference Dinner

Wednesday, 16 AUGUST 2023

09:00-10:30	FiCloud Session 8: Machine Learning and Data Analytics
Session Chair	
Onsite Room	Room 1
Zoom Link	Room1-Link

Smart Query Sampling with Feature Coverage and Unsupervised Machine Learning

Jerry Tang, Ryan Druckman, Louis Magarshack, Nate McNamara, Jim Ahn and Jiaqi Yan

Techniques for Moment Retrievals and Filtering from Large Volumes of Multimodal Data

Azhar Talha Syed and Shikharesh Majumdar

Integrated Machine Learning Concept with XG Booster and Random Forest Framework for Predicting Purchase Behaviour by Online Customers in e-Commerce Social Networks

Raja Sekhar Avula, Ergun Gide and Indra Seher

Online Continual Learning Data Quality Framework for Entity Resolution

Widad Elouataoui, Saida El Mendili and Youssef Gahi

09:00-10:30	MobiWis Session 6: Advanced Mobile Applications
Session Chair	
Onsite Room	Room 2
Zoom Link	Room2-Link

Towards a cash-on-delivery system based on Blockchain technology for developing countries: a case study in Vietnam

Huong Luong Hoang, Khanh Vo Hong, Phuc Nguyen Trong, Khoa Tran Dang, Khiem Huynh, Trong Nguyen Duong Phu, Hiếu Lê Văn, Loc Van Cao Phu, Duy Nguyen Truong Quoc, Tran Nguyen Huyen, Nguyen The Anh, Nghia Huynh Huu, Bang Le Khanh, Bao Tran Quoc, Ngan Nguyen Thi Kim, Son Xuan and Hieu Doan Minh

MITRE ATT&CK threat modelling extensions for mobile threats

Thoai van Do, Van Thuan Do, Niels Jacot, Bernardo Flores, Boning Feng and Thanh van Do

Virtual Career Advisor System

Tracey John, Dwaine Clarke, Daniel Coore, Fabian Monrose and John McHugh

Wednesday, 16 AUGUST 2023

09:00-10:30	FiCloud Session 9: AI, Blockchain and Cloud Services
Session Chair	
Onsite Room	Room 3
Zoom Link	Room3-Link

Exploring the Impact of Artificial Intelligence on User Satisfaction in Australian Cloud-based Payments: Insights from Financial Service Providers

Domingos Mondego, Ergun Gide, Jahan Hassan and Ayub Bokani

The Role of Service Quality and Security in Driving Satisfaction with Cloud-Based Payment Systems in Australia: A Merchant Perspective

Domingos Mondego, Ergun Gide, Ayub Bokani and Jahan Hassan

Performance Evaluation of Orange Pi 4 in SHA256 Computation for Blockchain Mining

Mouad Bensalah and Abdellatif Hair

A Runtime Trust Evaluation Mechanism in the Service Mesh Architecture

Rami Alboqmi, Sharmin Jahan and Rose Gamble

10:30-11:00	Coffee Break

Wednesday, 16 AUGUST 2023

11:00-12:30	FiCloud Session 10: Performance Monitoring and Evaluation
Session Chair	
Onsite Room	Room 1
Online Zoom	Room1-Link

A Multi-Agent Reinforcement Learning Approach for Congestion Control in network based-SDN

Kaoutar Boussaoud, Meryeme Ayache and Abdeslam En-Nouaary

Using Miniature Setups and Partial Streams for Scalable Remote Labs

Animesh Das, K.S. Viswanadh, Rishabh Agrawal, Akshit Gureja, Nitin Nilesh and Sachin Chaudhari

Condition Monitoring and Remaining Useful Life Prediction for Tool Wear in CNC Machines

Perin Ünal, Seyithan Temel, Emre Ummak and Ahmet Murat Özbayoğlu

A Novel and Adaptive Evaluation Mechanism for Deep Learning Models in Medical Imaging and Disease Recognition

Zainab Loukil, Qublai Khan Ali Mirza and Will Sayers

11:00-12:30	FiCloud Session 11: IoT and Cloud Continuum
Session Chair	
Onsite Room	Room 2
Online Zoom	Room2-Link

Emergency Care Patient Prediction using Electronic Health Records (EHR) Data: An End-to-End Machine Learning Pipeline

Maruful Sumon, Tor Kwembe, Venkata Melapu and Md Mohiuddin Hasan

A literature review on open-source Hardware FPGA Platforms for IoT: Paradigms, opportunities and open issues

Oussama El Allam, Abdelhakim Alali, Mohamed Sadik & Hasna Elmaaradi

Ensuring Privacy and Security of IoT Networks Utilizing Blockchain and Federated Learning

Md Mamunur Rashid, Piljoo Choi, Suk-Hwan Lee, Ing. Jan Platos, Young Huh and Ki-Ryong Kwon

Influence of various ML-Based Binary Classifiers on the Performance on handwritten digit recognition

Muhammad Farhan Shahid, Nayyer Aafaq, Syed Khurram Mahmud and Syed M Kazam Abbas Kazmi

Wednesday, 16 AUGUST 2023

11:00-12:30	FiCloud Session 12: Cyber Security in Cloud and Networks I
Session Chair	
Onsite Room	Room 3
Online Zoom	Room3-Link
Developing Real-Time Services with High Performance and Cloud Security Enabled Framework via Adjusted TLS v1.3 for On-Demand HIPA Activity Calculations *Mei-Chih Chang, Vadim Talanov, Jochem Snuverink and Daniela Kiselev* Enhancement of Big Data Security in Cloud Computing Using RSA Algorithm *Abel Yeboah-Ofori, Iman Darvishi and Azeez Sakirudeen Opeyemi* Threat Intelligence Sharing Component in the Service Mesh Architecture *Rami Alboqmi, Sharmin Jahan and Rose Gamble* Cross-Evaluation of Deep Learning-based Network Intrusion Detection Systems *Ciro Guida, Alfredo Nascita, Antonio Montieri and Antonio Pescapè*	

12:30-13:30	Lunch Break

Wednesday, 16 AUGUST 2023

13:30-15:00	FiCloud Session 13: Cyber Security in Cloud and Networks II
Session Chair	
Onsite Room	Room 1
Online Zoom	Room1-Link

Evaluating IP Blacklists Effectiveness

Luca Deri and Francesco Fusco

Blockchain Security Encryption to Preserve Data Privacy and Integrity in Cloud Environment

Abel Yeboah-ofori, Sayed Kashif Sadat, and Iman Darvishi

Automatic and realistic traffic generation in a cyber range

Raphael Rouquette, Simon Beau, Muhammad Mudassar Yamin, Mohib Ullah and Basel Katt

13:30-15:00	FiCloud Session 14: Cyber Security Assessment and Examination
Session Chair	
Onsite Room	Room 2
Online Zoom	Room2-Link

Data Driven Skill Assessment for Cybersecurity Exercises

Saif Hassan, Sarang Shaikh, Muhammad Mudassar Yamin, Basel Katt, Ali Shariq Imran and Mohib Ullah

Plan, Prepare and Respond: A Holistic Cyber Security Risk Management Platform

Dharani Goli, Hamad Al-Mohannadi and Mohammad Shah

Decoding Cyber Incident Reporting Requirements: A Cross-Regulatory Examination

Angelica Marotta and Stuart Madnick

Investigating the Challenges Companies in Rwanda Face when implementing Zero-Trust Network

Patrick Mutabazi, Emmanuel Ndashimye and Jema Ndibwire

Wednesday, 16 AUGUST 2023

13:30-15:00	FiCloud Session 15: Mobile Applications and AI
Session Chair	
Onsite Room	Room 3
Online Zoom	Room3-Link

Date Fruit Classification System using Deep Transfer Learning

Zainab Abuowda, Shorouk Ramadan, Nour Salam, Abdalla Said Gad, Jawad Yousaf, Taimur Hassan, Mohammed A. Ghazal and Eqab Almajali

Mobile-based Gamification of Community Exercise Initiatives using Location Services

Abdalla Abdelkhalek, Maha Yaghi, Marah Alhalabi, Abdalla Said Gad, Jawad Yousaf, Taimur Hassan and Mohammed A. Ghazal

AI-Based Mobile Paper Grading: Trends and Challenges

Ammar Naeem, Abdalla Said Gad, Marah Alhalabi, Maha Yaghi, Adel Khelifi and Mohammed A. Ghazal

Automated Computer Vision-based Detection of Solar Panel Defects Using a Thermal Camera Mobile Application

Hassan Hajjdiab, Gasm ELbary Mohamed, Salim Alzaabi, Marah Alhalabi, Abdalla Gad, Maha Yaghi, Mohammad Alkhedher and Mohammed Ghazal

Employing Machine Learning Algorithms to Detect Stress with a Specific Emphasis on Commuting Methods

Saeed Sharif, Madhav Raj Theeng Tamang, Cynthia H. Fu and Wael M El-Medany

The Effectiveness of DKIM and SPF in Strengthening Email Security

Mohamed Sami Ragheb, Wael M El-Medany and Saeed Sharif

END