Advance Program 2021

23-25 August 2021

Time Zone: British Summer Time (BST)

Link to World Time Zones

IEEE

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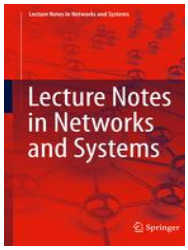

Advance Program 2021

	FiCloud 2021 **The 8th International Conference on Future Internet of Things and Cloud**
	MobiWis 2021 **The 17th International Conference on Mobile Web and Intelligent Information Systems**
	DEEP-BDB 2021 **The 2nd International Conference on Deep Learning, Big Data and Blockchain**
EMSICC	**EMSICC 2021** **The 7th International Workshop on Energy Management for Sustainable Internet-of-Things and Cloud Computing**
ICI	**ICI 2021** **The 7th International Symposium on Intercloud and IoT**

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General Information

- The conferences will be held online via the videoconferences service, 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 the papers.

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

- The main delivery mode of presentations will be in a live format via Zoom. But authors are required to provide a link to their pre-recorded presentation video which will be used as backups in case of internet failure. Please make sure that the pre-recorded video is remotely accessible via the link being shared. Use (Ctrl+Click) the following emails for sharing the links to pre-recorded videos:

    - FiCloud 2021
    - MobiWis 2021
    - Deep-BDB 2021

KEYNOTE

High-Performance Data Center Networking

Prof. Minlan Yu
Harvard University
USA

Abstract:

As data center networks strive to provide high throughput and ultra-low latency, they are increasingly sensitive to many fine timescale events such as microbursts, packet losses, and high queuing delay. It is challenging to capture these events because it requires microsecond-level counters to capture transient network states and high overhead to capture many such events in large networks. Today, without information about these fine timescale events, we have to infer network states and design complex heuristics for control decisions (e.g., congestion control). Moreover, due to the lack of precise information about these events, applications often suffer from tail latency problems caused by these events and struggle to locate the root causes. To address these challenges, we build network telemetry systems that can capture flow-level and packet-level events at fine timescale at both hosts and switches with low overhead. Such a telemetry system then provides a data foundation for us to design precise control solutions that quickly react to fine timescale events and diagnosis systems that can enable debugging large-scale applications with detailed information and low overhead. In this talk, we will discuss a few measure and control systems we built in my group to illustrate the design. Some of our work has been deployed in production data centers and adopted by switch/NIC vendors.

Biography:

Minlan Yu is a Gordon Mckay professor at Harvard School of Engineering and Applied Science. She received her B.A. in computer science and mathematics from Peking University in 2006 and her M.A. and PhD in computer science from Princeton University in 2008 and 2011. Her research interests include data networking, distributed systems, enterprise and data center networks, and software-defined networking. She received the ACM SIGCOMM doctoral dissertation award in 2011 and NSF CAREER award in 2015. She served as PC co-chair for NSDI, HotNets, and several other conferences and workshops.

KEYNOTE

Cloud Intelligence/AIOps – Infusing AI/ML into Large-scale Cloud Systems

Qingwei Lin

Microsoft Research Asia

Abstract:

In the past fifteen years, the most significant paradigm shift in the computing industry is the migration to cloud computing, which brings unprecedented opportunities of digital transformation to business, society, and human life. Therefore, the quality of cloud platforms, including reliability, performance, efficiency, security, sustainability, etc., has become immensely important. However, the distributed nature, massive scale, and high complexity of cloud platforms present huge challenges to design, build, and operate such systems effectively and efficiently. To address these challenges, "Cloud Intelligence/AIOps" is to infuse AI/ML into the designing, building, and operation of high-quality and high-efficiency cloud systems at scale. In this talk, I will first introduce the concept of " Cloud Intelligence/AIOps" and its research landscape. Then using a few projects at Microsoft as examples, I will talk about the work from Microsoft Research and its impact. I will also discuss the research challenges and opportunities in Cloud Intelligence/AIOps moving forward.

Biography:

Qingwei Lin is a Sr. Principal Research Manager at the DKI (Data, Knowledge, Intelligence) area of Microsoft Research Asia. He is leading a team of researchers working on machine learning and data mining technologies for Cloud Intelligence/AIOps. In Cloud Intelligence/AIOps area, Qingwei has ~50 publications in influential conferences such as OSDI, NSDI, ICSE, FSE, AAAI, IJCAI, SigKDD, etc. The research technologies have been transferred into multiple Microsoft products, such as Azure, Office, Windows, etc. Qingwei chaired Microsoft company-wide "Cloud Service Intelligence Summit" for 4 consecutive years. He joined Microsoft Research in 2006.

KEYNOTE

Leveraging Cloud, Fog and Mist Computing for Real-Time Applications: A Resource Allocation and Scheduling Perspective

Prof. Helen D. Karatza
Aristotle University of Thessaloniki
Greece

Abstract:
The ongoing expansion of the Internet of Things (IoT) has led to the emergence of new computing paradigms, such as fog and mist computing, in order to address the inherent latency of the remote cloud resources. The vast amount of data generated by IoT sensors and devices typically requires processing in a real-time manner, which cloud resources cannot usually provide due to their physical distance from the IoT layer. Fog computing extends the cloud closer to where the IoT data are generated in an attempt to minimize latency. Mist computing, a lightweight form of fog computing, extends the fog layer even closer to the IoT sensors and devices. The collaboration of mist, fog and cloud resources for the processing of real-time applications involves many challenges. Particularly important is the effective resource allocation and scheduling of the real-time workload on the multi-tier resources. In this talk, we will shed light on resource allocation and scheduling techniques for real-time applications, leveraging the power of cloud, fog and mist computing. Recent trends and novel approaches will be presented. In the conclusion, we will explore future research directions.

Biography:
Helen Karatza (Senior member, IEEE, ACM, SCS) is a Professor Emeritus in the Department of Informatics at the Aristotle University of Thessaloniki, Greece. Her research interests include cloud and fog computing, resource allocation and scheduling, real-time distributed systems, simulation and performance evaluation of large-scale distributed systems. She has authored or co-authored more than 200 technical papers and book chapters including five 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. She is the Editor-in-Chief of the Elsevier journal "Simulation Modelling Practice and Theory" and member of the Editorial Board of the "Future Generation Computer Systems" Elsevier journal. She was 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 in numerous Special Issues of international journals.

KEYNOTE

Reinforcement Learning for Service Placement and Resource Provisioning in Mobile Edge Computing

Prof. Jamal Bentahar

Concordia University
Canada

Abstract:
In the recent context of 6G and the Internet of Everything (IoE), more computing resources are required. Mobile Edge Computing (MEC) provides an efficient framework to deal with this problem. This talk will present an intelligent and proactive resource provisioning and service placement solution that considers the dynamic changes of service demands, the limitation of available computing resources of MEC, and the increase in the number and complexity of IoE services. The solution introduces a deep reinforcement learning algorithm where multiple requirements are considered such as the prediction of the resource usage of scaled applications, the prediction of available resources by hosting servers, as well as making service placement decisions. The solution addresses the long learning time for the algorithm to converge. The talk will also present a reinforcement leering solution to the problem of minimizing both, the network delay, which is the main objective of MEC, and the number of edge servers to provide a MEC design with minimum cost. This MEC design consists of edge servers placement and base stations allocation, which makes it a joint combinatorial optimization problem. Experiments and simulation results will be discussed.

Biography:
Jamal Bentahar is a Professor with Concordia Institute for Information Systems Engineering at Concordia University, Canada. He received the Ph.D. degree in computer science and software engineering from Laval University, Canada, in 2005. He obtained in 2006 the highly competitive NSERC Postdoctoral Fellow at Simon Fraser University, Canada. His research interests include artificial intelligence, machine learning, reinforcement learning, multi-agent systems, cloud/edge computing, computational logics, model checking, and applied game theory. He served as co-chair of the NSERC evaluation group from 2016 to 2018. He has published more than 200 papers in competitive venues such as AAMAS, IJCAI, AAAI, ICSOC, SCC, ICWS, IEEE TSC, ACM TIST, FGCS.

MONDAY, 23 AUGUST 2021

Time Zone: British Summer Time (BST)

Link to World Time Zones

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

09:30-10:30	Plenary Session: Keynote 1
	Leveraging Cloud, Fog and Mist Computing for Real-Time Applications: A Resource Allocation and Scheduling Perspective *Prof. Helen D. Karatza* *Aristotle University of Thessaloniki, Greece*
Session Chair	Irfan Awan, University of Bradford, UK
Zoom Link	Room 1

10:30-10:45	Break

10:45-12:15	FiCloud Session 1: Fog and Edge Clouds
Session Chair	Guillaume Pierre, Rennes 1 University, France
Zoom Link	Room 1
Flow-level Dynamic Bandwidth Allocation in SDN-enabled Edge Cloud using Heuristic Reinforcement Learning *Arslan Qadeer, Myung Lee and Kazuya Tsukamoto* Towards automated privacy compliance checking of applications in Cloud and Fog environments *Mozhdeh Farhadi, Guillaume Pierre and Daniele Miorandi* Video Streaming Analysis in Multi-tier Edge-Cloud Networks *Eduardo S. Gama, Lucas Otavio N. de Araujo, Roger Immich and Luiz F. Bittencourt* A Context-Aware, Decentralized Learning Approach for Fog-based Smart and Connected Community *M Saravanan and Arindam Banerjee*	

MONDAY, 23 AUGUST 2021

10:45-12:15	MobiWis Session 1: Security and Privacy
Session Chair	Thanh Van Do, Telenor, Norway
Zoom Link	Room 2

A secure 5G eldercare solution using millimeterwave sensors
Boning Feng, Akihiro Kajiwara, Van Thuan Do, Jacot Niels, Bernado Santos, Bruno Dzogovic and Thanh Van Do

A Framework for Investigating GDPR Compliance through the Lens of Security
Angelica Marotta and Stuart Madnick

Information Security Education and Self-Perception of Privacy Protection Risk in Mobile Web in Obstetrics Students from Peru
Augusto Felix Olaza-Maguiña and Yuliana Mercedes De La Cruz-Ramirez

10:45-12:15	Deep-BDB Session 1: Machine Learning and Time Series
Session Chair	Markus Aleksy, ABB, Germany
Zoom Link	Room 3

Tiered Clustering for Time Series Data
Ruizhe Ma and Rafal Angryk

A three-step machine learning pipeline for detecting and explaining anomalies in the time series of industrial process plants
Marcel Dix

Detecting Phishing Websites using Neural Network and Bayes Classifier
Ravinthiran Partheepan

12:15-13:15	Lunch Break

MONDAY, 23 AUGUST 2021

13:15-14:45	FiCloud Session 2: Security and Privacy I
Session Chair	Helen D. Karatza, Aristotle University of Thessaloniki, Greece
Zoom Link	Room 1

Security and Cost Aware Scheduling of Real-Time IoT Workflows in a Mist Computing Environment
Georgios L. Stavrinides and Helen Karatza

An Optimized Single Sign-On Schema for Reliable Multi-Level Security Management in Clouds
Aytaj Badirova, Shirin Dabbaghi Varnosfaderani, Faraz Fatemi Moghaddam, Philipp Wieder and Ramin Yahyapour

A Secure and Flexible Method of Permission Delegation Between Different Account Types
Aytaj Badirova, Shirin Dabbaghi Varnosfaderani, Faraz Fatemi Moghaddam, Philipp Wieder and Ramin Yahyapour

Ransomware Analysis using Cyber Kill Chain
Qublai Khan Ali Mirza, Martin Brown, Oliver Halling, Louie Shand and Abu Alam

13:15-14:45	EMSICC Session 1: Energy Management in Sustainable IoT and Cloud
Session Chair	Samia Bouzefrane, Cnam, France
Zoom Link	Room 2

Dynamic power management for fixed priority real-time systems with regenerative energy
Maryline Chetto

Business Recommender System through Matchmaking with Supervised Machine Learning in Distributed Digital Platforms: Energy Complexity Analysis
Mustapha Kamal Benramdane, Hanene Maupas, Elena Kornyshova and Soumya Banerjee

Energy-aware Service Level Agreements in 5G NFV architecture
Yacine Anser, Jean-Luc Grimault, Samia Bouzefrane and Chrystel Gaber

Energy Cost of IoT Design Patterns
Antoine Crestani, Raphael Tetu, Jean-Michel Douin and Pierre Paradinas

MONDAY, 23 AUGUST 2021

13:15-14:45	Deep-BDB Session 2: Blockchain Technology and Applications
Session Chair	Salima Benbernou University of Paris, France
Zoom Link	Room 3

A Blockchain Framework for On-demand Intermodal Interlining: Blocklining
Mary Everan, Michael McCann and Gary Cullen

Intersection of AI and Blockchain Technology: Concerns and Prospects
Vikhyath K.B., Sanjana R. K. and Vismitha N.V.

SAIaaS: A Blockchain-based solution for secure artificial intelligence as-a-Service
Nicolas Six, Andrea Perrichon Chretien and Nicolas Herbaut

14:45-15:00	Break

MONDAY, 23 AUGUST 2021

15:00-16:00	Plenary Session: Keynote 2
	High-Performance Data Center Networking *Prof. Minlan Yu, Harvard University, USA*
Session Chair	Muhammad Younas, Oxford Brookes University, UK
Zoom Link	Room 1

16:00-16:15	Time Break

16:15-17:30	MobiWis Session 2: Web and Mobile Applications
Session Chair	Lulwa Alsuwaidan, King Saud University, Saudi Arabia
Zoom Link	Room 2

Measuring and Evaluation of the Results of UI-Re-Engineering in the Nursing Field
Sergio Staab, Johannes Luderschmidt and Ludger Martin

Investigating the Usability of Government Applications for Elderlies in the Kingdom of Saudi Arabia
Arwa Almuaybid and Lulwah Alsuwaidan

Online Application for Bitcoin Price Visualization
Ales Berger, Milan Kostak and Bruno Jezek

MONDAY, 23 AUGUST 2021

16:15-17:30	EMSICC/ICI Session 2: Energy Management and Cloud/IoT
Session Chair	Leila Fayez Ismail, UAE University, UAE
Zoom Link	Room 3

ANDREAS: Artificial intelligence traiNing scheDuler foRaccElerAted resource clusterS
Federica Filippini, Danilo Ardagna,Marco Lattuada, Edoardo Amaldi, Maciek Riedl, Katarzyna Materka, Paweł Skrzypek, Michele Ciavotta, Fabrizio Magugliani and Marco Cicala

Secure and Privacy-Preserving Lightweight Blockchain for Energy Trading
Huned Materwala and Leila Ismail

Energy-aware VM placement based on intra-balanced resource allocation in data centers
Imene El-Taani, Mohand-Cherif Boukala and Samia Bouzefrane

Improving IoT Module Testability with Test-Driven Development and Machine Learning
Victor Takashi Hayashi, Cairo Mateus Neves Ribeiro, Artino Quintino Filho, Matheus Ancelmo Bonfim Pita, Bruno Manias Trazzi, J´ulio Cezar Estrella and Wilson Vicente Ruggiero

A Comparative Analyses of Current IoT Middleware Platforms
Otily Toutsop, Kevin Kornegay and Edmund Smith

TUESDAY, 24 AUGUST 2021

Time Zone: British Summer Time (BST)

Link to World Time Zones

09:30-10:30	Plenary Session: Keynote 3
	Cloud Intelligence/AIOps - Infusing AI/ML into Large-scale Cloud Systems *Qingwei Lin, Microsoft Research Asia*
Session Chair	Perin Unal, Teknopar, Turkey
Zoom Link	Room 1

10:30-10:45	Break

10:45-12:15	FiCloud Session 3: Machine Learning in Cloud and Networking
Session Chair	Georgios Stavrinides, Aristotle University of Thessaloniki, Greece
Zoom Link	Room 1

New virtual machine placement approach based on the micro genetic algorithm in cloud computing
Ali Belgacem, Kadda Beghdad-Bey and Said Mahmoudi

Machine Learning Algorithms for Uplink Link Adaptation for LTE CAT M1 Users
Sukhdeep Singh, Vishal Sinha, Jun Hyuk Song and Sukhmeet Singh

A Comparison of State-of-the-Art Machine Learning Algorithms on Fault Indication and Remaining Useful Life Determination by Telemetry Data
Aras Fırat ¨Unal, Ali Yuce Kaleli, Emre Ummak and Ozlem Albayrak

Machine Learning Algorithms for Intrusion Detection and Measuring Network Performance
Ibrahim Abobaker and Ahmad Musa

TUESDAY, 24 AUGUST 2021

10:45-12:15	MobiWis Session 3: Networking and Communication
Session Chair	Boning Feng, Oslo Metropolitan University, Norway
Zoom Link	Room 2

Optimizing 5G VPN+ Transport Networks with Vector Packet Processing and FPGA Cryptographic Offloading
Bruno Dzogovic, Bernardo Santos, Boning Feng, Van Thuan Do, Niels Jacot and Thanh Van Do

Quadratic p-Median Formulations with Connectivity Costs between Facilities
Cesar Sandoval, Pablo Adasme and Ali Dehghan Firoozabadi

Applying Game Theory Concept to Improve Resource Allocation in Mobile Edge Computing
Dashty Mohammed Khudhur, Tara Ali Yahiya and Pinar Kirci

10:45-12:15	Deep-BDB Session 3: Blockchain and Security
Session Chair	Fatima Zahrah, University of Oxford, UK
Zoom Link	Room 3

Trade-off Between Security and Scalability in blockchain Design: A Dynamic Sharding Approach
Kahina Khacef, Salima Benbernou, Mourad Ouziri and Muhammad Younas

BC-HRM: A Blockchain-Based Human Resource Management System Utilizing Smart Contracts
Heba Adel, Mostafa ElBakary, Kamal ElDahshan, and Dina Salah.

Applicability of the software security code metrics for Ethereum smart contract
Aboua Ange Kevin N'DA, Santiago Matalonga and Keshav Dahal

12:15-13:15	Lunch Break

TUESDAY, 24 AUGUST 2021

13:15-14:45	FiCloud Session 4: Security and Privacy II
Session Chair	Leila Fayez Ismail, UAE University, UAE
Zoom Link	Room 1

PoEx: Proof of Existence for Evil Twin Attack Prevention in Wi-Fi Personal Networks
Kumar Murugesan, Kavin Kumar Thangadorai and Muralidhara V N

Normalization Framework for Vulnerability Risk Management in Cloud
Vida Ahmadi, Patrik Arlos and Emiliano Casalicchio

Access Pattern Hiding in Searchable Encryption
Fateh Boucenna, Omar Nouali, Kamel Adi and Samir Kechid

Forensic analysis of IoT ecosystems
François Bouchaud, Thomas Vantroys and Gilles Grimaud

13:15-14:45	MobiWis Session 4: Intelligent Information Systems
Session Chair	Jamal Bentahar, Concordia University, Canada
Zoom Link	Room 2

Improving Autonomous Vehicles Safety in Snow Weather Using Federated YOLO CNN Learning
Gaith Rjoub, Omar Abdel Wahab, Jamal Bentahar and Ahmed Saleh Bataineh

WhatsApp, an Educational Computer System?
Bangisisi Zamuxolo Mathews Nyembe and Grant Royd Howard

Transfer Learning on Inception ResNet V2 for Expiry Reminder: A Mobile Application Development
Wi-Yi Ong, Chian-Wen Too and Kok-Chin Khor

TUESDAY, 24 AUGUST 2021

13:15-14:45	Deep-BDB Session 4: Machine Learning, Blockchain and IoT
Session Chair	Dina Salah, Sadat Academy for Management Sciences, Egypt and The American University in Cairo, Egypt
Zoom Link	Room 3

A Recommendation Model Based on Visitor Preferences on Commercial Websites Using the TKD-NM Algorithm
Piyanuch Chaipornkaew and Thepparit Banditwattanawong

Reinforcement Learning: A Friendly Introduction
Dema Daoun, Fabiha Ibnat, Zulfikar Alom, Zeyar Aung and Mohammad Abdul Azim

Universal multi-platform interaction approach for distributed Internet of Things
Maria Stepanova and Oleg Eremin

A Practical and Economical Bayesian Approach to Gas Price Prediction
Chihyun Chuang and Tingfang Lee

14:45-15:00	Break

TUESDAY, 24 AUGUST 2021

15:00-16:00	Plenary Session: Keynote 4
	Reinforcement Learning for Service Placement and Resource Provisioning in Mobile Edge Computing *Prof. Jamal Bentahar, Concordia University, Canada*
Session Chair	Markus Aleksy, ABB, Germany
Zoom Link	Room 1

16:00-16:15	Break

16:15-17:30	FiCloud Session 5: Energy Management
Session Chair	Qublai Ali Mirza, University of Gloucestershire, UK
Zoom Link	Room 1

Ambient Energy Saving with Predictive Thermal Comfort in Green Building using Smart Blinds
Utkarsh, Muthukumaran Natarajan and Aman Framewala

Energy Consumption Prediction using Degree Days based on Comfort Temperature
Utkarsh, Aman Framewala and Muthukumaran Natarajan

An Energy-aware Multi-Criteria Federated Learning Model for Edge Computing
Ahmed A. Al-Saedi, Emiliano Casalicchio and Veselka Boeva

Energy-Aware Edge-Cloud Computation Offloading for Smart Connected Health
Huned Materwala and Leila Ismail

TUESDAY, 24 AUGUST 2021

16:15-17:30	MobiWis Session 5: IoT and Ubiquitous Computing
Session Chair	Stephan Böhm, RheinMain University of Applied Sciences, Germany
Zoom Link	Room 2

A Game of Fog and Mirrors: Privacy in the World of Internet of Things
Alice F. Parker, Tor-Morten Grønli and Muhammad Younas

A step towards more eco-responsible computing
Richard Fontaine, Rémy Courdier and Denis Payet

Analysis of Distance Sensor in Lego Mindstorm
Wasana Leithe, Tor-Morten Grønli and Muhammad Younas

16:15-17:30	FiCloud Session 6: Smart Applications
Session Chair	Samia Bouzefrane, Cnam, France
Zoom Link	Room 3

Feedback Learner Framework for enhancing User Automations in IoT Smart Home Environment
Shiva Murthy Busetty and Prabhat Mishra

Making Analog Water Meter Smart using ML and IoT-based Low-Cost Retrofitting
A. Kumar Lall, A. Khandelwal, R. Bose, N. Bawankar, N. Nilesh, A. Dwivedi and S. Chaudhari

AI based Diagnostic Service for IOT enabled Smart Refrigerators
Tarun Bansal, Suraj Santosh Agrawal, Deepak Kumar, Shambu Mt and Inbarajan P

Innovative services and processes in university environment, processes of education supported by SMART technologies
Peter Balco, Igor Šarlina and Michal Gallo

Wednesday, 25 AUGUST 2021

Time Zone: British Summer Time (BST)

Link to World Time Zones

09:30-10:30	FiCloud Session 7: Advanced Networking I
Session Chair	Tor-Morten Grønli, Kristiania University College, Norway
Zoom Link	Room 1

Efficacy of ADDIE Model in Peer-to-Peer Networks: Digital Evidence Investigation
Ahmad Musa, Irfan-Ullah Awan and Ibrahim Abobaker

Management and Monitoring IoT Networks through an Elastic Stack-based Platform
Gonzalo Calderon, Guillermo del Campo, Edgar Saavedra and Asuncion Santamaria

Comparative evaluation of new low-cost particulate matter sensors
Ishan Patwardhan, Spanddhana Sara and Sachin Chaudhari

Hierarchical Clustering based Spatial Sampling of Particulate Matter Nodes in IoT Network
C Rajashekar Reddy and Sachin Chaudhari

09:30-10:30	FiCloud Session 8: Advanced Networking II
Session Chair	Jyotirmoy Karjee, Samsung R&D Institute, India
Zoom Link	Room 2

Latency Reduction in 5G MEC during Context Switchovers using Learning-to-Rank Algorithms on Edge Application Servers
Sridharan Natarajan and Santhosh Mohan

eSIM suitability for 5G and B5G enabled IoT verticals
Catarina Silva, João Paulo Barraca and Rui Aguiar

Root Cause Analysis in 5G/6G Networks
Dinis Canastro, Ricardo Rocha, Mário Antunes, Diogo Gomes and Rui Aguiar

Hands-on evaluation of the cryptographic overhead on wireless sensor networks
Catarina Silva, Vitor Cunha, João Paulo Barraca and Rui Aguiar

Split Computing: Dynamic Partitioning and Reliable Communications in IoT-Edge for 6G Vision
Jyotirmoy Karjee, Kartik Anand, Vanamala Narasimha Bhargav, Praveen Naik S,Ramesh Babu Venkat Dabbiru and Srinidhi N

10:30-10:45	Break

Wednesday, 25 AUGUST 2021

10:45-12:15	FiCloud Session 9: Data Storage and Management
Session Chair	Salima Benbernou University of Paris, France
Zoom Link	Room 1

A Parallel Processing Technique for Extracting and Storing User Specified Data.
Bannya Chanda and Shikharesh Majumdar

Time-aware Data Spaces - A key Computing Unit in the Edge-to-Cloud Continuum.
Herwig Zeiner and Roland Unterberger

Semantic similarity on constraints datasets: a latent approach
Mário Antunes, Diogo Gomes and Rui Aguiar

Designing a NoSQL Database for Efficient Storage and Retrieval of Health Data
Poly Sil Sen and Nandini Mukherjee

10:45-12:15	FiCloud Session 10: Blockchain and Machine Learning
Session Chair	George Ghinea, Brunel University London, UK
Zoom Link	Room 2

An experimental evaluation of the scalability of permissioned blockchains
Stefano Tavonatti, Davaadorj Battulga, Mozhdeh Farhadi, Carlo Caprini and Daniele Miorand

An Innovative Blockchain Based Application of the Extended Triple Diffie-Hellman Protocol for IoT
Armando Ruggeri, Antonino Galletta, Antonio Celesti, Maria Fazio and Massimo Villari

A Comparison of Deep Transfer Learning Methods on Bearing Fault Detection
Bilgin Umut Deveci, Mert Çeltikoğlu, Tilbe Alp, Özlem Albayrak, Perin Ünal and Pınar Kırcı

Modern Stylometry: A Review & Experimentation with Machine Learning
Connagh Muldoon, Ahsan Ikram and Ali Mirza Qublai Khan

12:15-13:00	Lunch Break

Wednesday, 25 AUGUST 2021

13:00-14:30	FiCloud Session 11: Efficiency and Optimization Approaches
Session Chair	Antonio Celesti, University of Messina, Italy
Zoom Link	Room 1

Memory-Efficient CMSIS-NN with Replacement Strategy
Fouad Sakr, Francesco Bellotti, Riccardo Berta, Alessandro De Gloria and Joseph Doyle

D-LBAH : Dynamic Load Balancing Algorithm for HEC-SDN systems
Cheikh Saliou Mbacke Babou, Doudou Fall, Shigeru Kashihara, Yuzo *Taenaka, Monowar Bhuyan, Ibrahima Niang, Ibrahima Diane and Youki Kadobayashi*

A Spark-based Open Source Framework for Large-Scale Parallel Processing of Rich Text Documents
Qiang Chen, Yinong Chen, Sheng Wu and Zili Zhang

Intelligent live video dispatching framework for work from home setup in 5G Networks
Gaurav Jain, Sukhdeep Singh and Debabrata Das

Multi-faceted cloud portability with a TOSCA-based orchestrator.
Domenico Calcaterra and Orazio Tomarchio

13:00-14:30	FiCloud Session 12: IoT Applications and Scenarios
Session Chair	Muhammad Younas, Oxford Brookes University, UK
Zoom Link	Room 2

Nested compartmentalisation for constrained devices
Nicolas Dejon, Chrystel Gaber and Gilles Grimaud

Intel Software Guard Extensions in Internet of Things Scenarios: A Systematic Mapping Study
Newton Carlos Will, Dalton C´ezane Gomes Valadares, Danilo Freire de Souza Santos and Angelo Perkusich

Rule-based Adaptations to Control Cybersickness in Social Virtual Reality Learning Environments
Samaikya Valluripally, Vaibhav Akashe, Michael Fisher, David Falana, Khaza Anuarul Hoque and Prasad Calyam

A Supervised Approach for Providing Contextual Information to User Behavior in IoT Smart Home Environment
Ankit Rokde and Amogha Shanbhag

Wednesday, 25 AUGUST 2021

14:30-15:00	Conference Closing Session
Zoom Link	Room 1