

ADVANCE PROGRAM



IEEE FiCloud 2017

The IEEE 5th International Conference on Future Internet of Things and Cloud



MobiWis 2017

The 14th International Conference on Mobile Web and Intelligent Information Systems

Lecture Notes in Computer Science (LNCS), Springer



Innovate-Data 2017

The 3rd International Conference on Big Data Innovations and Applications, IEEE-CS TCI

Co-located Symposia/Workshops:

ICI, BigR&I, MobiApps, PMECT, SNAMS, SP4SC, AKEH, DS4IDS, AWMA, 5GET

**21-23 August 2017
Prague, Czech Republic**

With support of: Charles University, Czech Republic



KEYNOTE TALK I

IoT Security: The Gathering Storm

Andrew Martin

University of Oxford
UK

Abstract:

The Internet of Things (IoT) has begun to touch the lives of many already, and we are reaping benefits in convenience and economic value. Much has been invested in IoT security - and yet examples of insecure IoT devices and configurations are reported almost daily. Relatively few of these reports have come from tangible examples of loss or disruption by malice so far. Is this the calm before the storm? Will the threats be contained, or will they overwhelm the IoT venture? We will consider some of the possible future scenarios, and the possible professional responses to these. It is clear that some profound improvement is needed: but is effort best focused on engineering, design, law, regulation, consumer awareness, or all of these? We will ask what can realistically be achieved, and whether that will be enough?

Biography:

Andrew Martin is a Professor of Systems Security and Director of Centre for Doctoral Training in Cyber Security at the Department of Computer Science, University of Oxford, UK. Prof. Martin undertakes research and teaching in the area of Systems Security, in the University of Oxford. He was instrumental in setting up the University's Cyber Security Network and helps to lead it, heading Oxford's EPSRC/GCHQ-recognised Academic Centre of Excellence in Cyber Security Research. He directs the Centre for Doctoral Training in Cyber Security, which admits 16 students each year for inter-disciplinary education and research. His recent research focus has been on the technologies of Trusted Computing, exploring how they can be applied in large-scale distributed systems, particularly cloud computing, mobile devices, and the Internet of Things. He has published extensively in this area, hosting several related international events in Oxford and speaking on the subject all over the world.

KEYNOTE TALK II

Big Data Security and Privacy: Developments and Directions

Bhavani Thuraisingham

The University of Texas at Dallas

USA

Abstract:

The collection, storage, manipulation and retention of massive amounts of data have resulted in serious security and privacy considerations. Various regulations are being proposed to handle big data so that the privacy of the individuals is not violated. For example, even if personally identifiable information is removed from the data, when data is combined with other data, an individual can be identified. This is essentially the inference and aggregation problem that data security researchers have been exploring for the past four decades. This problem is exacerbated with the management of big data as different sources of data now exist that are related to various individuals. While collecting massive amounts of data causes security and privacy concerns, big data analytics applications in cyber security is exploding. For example, an organization can outsource activities such as identity management, email filtering and intrusion detection to the cloud. This is because massive amounts of data are being collected for such applications and this data has to be analyzed. The question is, how can the developments in big data management and analytics techniques be used to solve security problems? These problems include malware detection, insider threat detection, and intrusion detection. To address the challenges of big data security and privacy as well as big data analytics for cyber security applications, we organized a workshop sponsored by the National Science Foundation in September 2014 and presented the results in 2015 at an inter-agency workshop in Washington DC. Since then several developments have been reported on big data security and privacy as well as on big data analytics of cyber security. This talk will summarize the findings of the workshop and discuss the developments and directions.

Biography:

Dr. Bhavani Thuraisingham is the Louis A. Beecherl, Jr. Distinguished Professor in the Erik Jonsson School of Engineering and Computer Science at the University of Texas, Dallas (UTD) and the executive director of UTD's Cyber Security Research and Education Institute. Her current research is on integrating cyber security, cloud computing and data science. Prior to joining UTD she worked at the MITRE Corporation for 16 years including a three-year stint as a Program Director at the NSF. She initiated the Data and Applications Security program at NSF and was part of the Cyber Trust theme. Prior to MITRE, she worked for the commercial industry for six years including Honeywell. She is the recipient of numerous awards including the IEEE CS1997 Technical Achievement Award, the ACM SIGSAC 2010 Outstanding Contributions Award, 2012 SDPS Transformative Achievement Gold Medal, 2013

IBM Faculty Award, 2017 ACM CODASPY Research Award, and 2017 IEEE CS Services Computing Technical Committee Research Innovation Award. She is a 2003 Fellow of the IEEE and the AAAS and a 2005 Fellow of the British Computer Society. She has published over 120 journal articles, 250 conference papers, 15 books, has delivered over 130 keynote addresses, and is the inventor of five patents. She has chaired conferences and workshops for women in her field including on Women in Cyber Security, Women in Data Science, and Women in Services Computing/Cloud and has delivered featured addresses at SWE, WITI, and CRA-W.

KEYNOTE TALK III

Big Data 2.0 Processing Engines

Sherif Sakr

King Saud bin Abdulaziz University for Health Sciences, Saudi Arabia

University of New South Wales, Australia

Abstract:

For a decade, the MapReduce framework, and its open source realization, Hadoop, has emerged as a highly successful framework that has created a lot of momentum such that it has become the de facto standard of big data processing platforms. However, in recent years, academia and industry have started to recognize the limitations of the Hadoop framework in several application domains and big data processing scenarios such as large scale processing of structured data, graph data and streaming data. Thus, we have witnessed an unprecedented interest to tackle these challenges with new solutions which constituted a new wave of mostly domain-specific, optimized big data processing engines. This talk refers to this new wave of systems as "Big Data 2.0 processing systems". It provides a taxonomy and analysis of the state-of-the-art in this domain. In addition, it identifies a set of the current open research challenges and discusses promising directions for future research.

Biography:

Sherif Sakr is a Professor of Computer Science at King Saud bin Abdulaziz University for Health Sciences. He is also affiliated with the School of Computer Science and Engineering (CSE) at University of New South Wales (UNSW Australia) and Data61/CSIRO (formerly NICTA). He received his PhD degree in Computer and Information Science from Konstanz University, Germany in 2007. He has held a visiting Researcher/Professor appointments at Macquarie University (2008-2009), Microsoft Research, Redmond, USA (2011), Nokia Bell Labs, Ireland - Formerly Alcatel-Lucent Bell Labs (2012), Humboldt-Universität zu Berlin, Germany (2015), University of Zurich, Switzerland (2016), and Technical University of Dresden, Germany (2016). In 2013, he has been awarded the Stanford Innovation and Entrepreneurship Certificate. Prof. Sakr's research interests include, data and information management, big data processing and analytics, data science and big data management in cloud computing. He is an Associate Editor of the Cluster Computing Journal and Transactions on Large-Scale Data and Knowledge-Centered Systems. He is an IEEE Distinguished Speaker.

MONDAY 21 AUGUST 2017

08:00 am: Registration

9:00-9:30 Conference Opening (Room: Prague A+B)

09:30-10:30 Plenary Session: Keynote I

IoT Security: The Gathering Storm
Andrew Martin, University of Oxford

Session Chair: Michel Kadoch, École de Technologie Supérieure
Room: Prague A+B

10:30-11:00 Coffee Break

11:00-12:30 Parallel Sessions

FiCloud Session 1: Performance Evaluation and Modelling

Session Chair: Peter Bull, Birmingham City University
Room: Prague A+B

A Run Time Technique for Handling Error in User-estimated Execution Times on Systems Processing MapReduce Jobs with Deadlines
Norman Lim, Shikharesh Majumdar, and Peter Ashwood-Smith

The Effect of Workload Computational Demand Variability on the Performance of a SaaS Cloud with a Multi-Tier SLA
Georgios L. Stavrinides and Helen D. Karatza

Performance Evaluation of Framed Slotted ALOHA with Reservation Packets for M2M Networks
Vicente Casares-Giner and Jorge Martinez-Bauset

An Intersection Dynamic VANET Routing Protocol for a grid scenario
Ahmad Abuashour and Michel Kadoch

A Markov-based Prediction Model for Host Load Detection in Live VM Migration
Suhib Bani Melhem, Anjali Agarwal, Nishith Goel and Marzia Zaman

MobiWis Session 1: Advanced Web and Mobile Systems

Session Chair: Peter Barth, Rheinmain University

Room: Prague D

Route Recommendations to Business Travelers Exploiting Crowd-Sourced Data

Thomas Collerton, Andrea Marrella, Massimo Mecella, and Tiziana Catarci

Audio Story and AR Platform for Youth Engagement

Kari Salo, Merja Bauters, and Tommi Mikkonen

Short and Reliable Path Selection for Automatic Evacuation Guiding Based on Interactions between Evacuees and Their Mobile Devices

Takanori Hara, Masahiro Sasabe, and Shoji Kasahara

Exploring Behavior Change Features for Mobile Workout Applications

Perin Ünal, Seyma Kucukozer Cavdar, Tuğba Taşkaya Temizel, P. Erhan Eren and Sriram Iyengar

12:30-13:30

Lunch

13:30-15:00

Parallel Sessions

FiCloud Session 2: Security, Privacy and Trust 1

Session Chair: Jonny Karlsson, Arcada University of Applied Sciences

Room: Prague A+B

Service Assignment in Federated Cloud Environments based on Multi-Objective Optimization of Security

Talal Halabi and Martine Bellaiche

A JSON Token-Based Authentication and Access Management Schema for Cloud SaaS Applications

Obinna Ethelbert, Faraz Fatemi Moghaddam, Philipp Wieder, Ramin Yahyapour

How to adapt Authentication and Authorization Infrastructure of applications for the Cloud

Tri Hoang Vo, Woldemar Fuhrmann and Klaus-Peter Fischer-Hellmann

Ensuring Information Security for Internet of Things

Natalia Miloslavskaya and Alexander Tolstoy

An Empirical Study of Cultural Dimensions and Cybersecurity Development

Aristotle Onumo, Andrea Cullen and Irfan Awan

MobiWis Session 2: Mobile Web - Practice and Experience I

Session Chair: Markus Aleksy, ABB Corporate Research

Room: Prague D

Prediction of Conditions for Drying Clothes based on Area and Temperature Data

Marketa Stastna, Jan Dvorak, Ali Selamat and Ondrej Krejcar

Google Glass Used as Assistive Technology Its Utilization for Blind and Visually Impaired People

Ales Berger, Andrea Vokalova, Filip Maly and Petra Poulova

An Approach of Solid Waste Monitoring with Smart Dumpsters and Disposal

Pinar Kirci, Lutfu Çagatay Agca and Muhammed Fatih Aksu

Intelligent Notepad for Windows Phone that Uses GPS Data

Milan Kostak, Jan Dvorak, Ali Selamat and Ondrej Krejcar

BigR&I Session 1: Big Data Research and Innovation 1

Session Chair: Esa Hämäläinen, University of Turku

Room: Vienna I+II

Distributed knowledge acquisition basing on integration of Data Mining and Text Mining methods and their usage with AT-TECHNOLOGY workbench

Galina V. Rybina, Yury M. Blokhin and Elena S. Sergienko

Security Intelligence Centers for Big Data Processing

Natalia Miloslavskaya

Big Data, cost and emission reporting in process industry

Esa Hämäläinen and Elen Twrdy

Use of Data Mining Algorithms While Determining Threshold Values of Economic Security Indices

Zhukov A. N., Leonov P. Y., Evsikov K. V., Domashova J. V. & Morozov N. V.

15:00-15:30

Coffee Break

15:30-17:00

Parallel Sessions

FiCloud Session 3: IoT Services and Applications

Session Chair: Ron Austin, Birmingham City University

Room: Prague A+B

Technologies for a Thing-Centric Internet of Things
Elisabetta Farella, Manuele Rusci, Bojan Milosevic and Amy L. Murphy

Proposal of Adaptive Data Rate Algorithm for LoRaWAN-based Infrastructure
Vojtech Hauser and Tomáš Hégr

Energy efficient design of a pasture sensor network
Luís Nóbrega, Paulo Pedreiras, Pedro Gonçalves and Sérgio Silva

IoT-Based Real-Time Telemetry System Design: An Approach
Ahmet Albayrak

Improve IoT/M2M data organization based on stream patterns
Mário Antunes, Ricardo Jesus, Diogo Gomes, and Rui L. Aguiar

MobiWis Session 3: Mobile Web - Practice and Experience 2

Session Chair: Aneta Poniszewska-Maranda, Lodz University of Technology
Room: Prague D

Calculating the Optimal Price of Products in an Online Store
Ondrej Sukala, Petra Maresova, Jan Dvorak, Ali Selamat and Ondrej Krejcar

Smart Security System based on Android Platform
Pavel Zubr, Jan Dvorak, Ali Selamat and Ondrej Krejcar

Mobile Health Application Running on Public Cloud during Hajj
Ibtehal Nafea

Mobile Devices and Mobile Applications Used in Parkinson's Disease
Blanka Klimova

BigR&I Session 2: Big Data Research and Innovation 2

Session Chair: Natalia Miloslavskaya, MEPhI
Room: Vienna I+II

Investigation of money laundering and extremism indicators relationship
Aidaraliev Alina A. and Krylov Grigory O.

A systematic approach to describing the source code of a cloud platform with assured security
Dmitry Demidov

Deriving Cognitive Map Concepts on the Basis of Social Media Data Clustering
Vasiliy S. Kireev

The Use of Clustering Algorithms Ensemble with Variable Distance Metrics in Solving Problems of Web Mining
Pyotr V. Bochkaryov and Anna I. Guseva

17:00-18:30

Parallel Sessions

FiCloud Session 4: Energy Efficiency

Session Chair: Filipe Portela, University of Minho, Portugal
Room: Prague A+B

GreenCloudTax: A flexible IaaS Tax Approach as Stimulus for Green Cloud Computing
Benedikt Pittl, Werner Mach and Erich Schikuta

Automatic Inference of Energy Models for Peripheral Components in Embedded Systems
Nadir Cherifi, Thomas Vantroys, Alexandre boe, Colombe Herault and Gilles Grimaud

Energy-aware Mobile Edge Computing for Low-Latency Visual Data Processing
Huy Trinh, Dmitrii Chemodanov, Shizeng Yao, Qing Lei, Bo Zhang, Fan Gao, Prasad Calyam, and Kannappan Palaniap

Supporting Energy-Efficient Computing on Heterogeneous CPU-GPU Architectures
Kyle Siehl and Xinghui Zhao

Modeling the Affects of Independent Components on Mobile Device Charging Times
Mathew Schlichting and Jason Sawin

MobiWis Session 4: Security and Mobile Network Systems

Session Chair: Dwaine Clarke, University of the West Indies
Room: Prague D

An Authentication Mechanism for Accessing Mobile Web Services
Kamal Eldin Mohamed, Duminda Wijesekera, and Paulo Cesar Costa

Aspects of application security for Internet of Things systems
Aneta Poniszewska-Maranda and Bartosz Wieczorek

Track & Trace System with Serialization Prototyping Methodology for Pharmaceutical Industry in EU
Josef Horalek and Vladimir Sobeslav

Visual Moving Objects Tracking Using Shape Detectors and Object Models
Yin-Tien Wang and Chin-An Shen

Research of the Mobile CDMA Network for the Operation of an Intelligent Information System of Earth-Moving and Construction Machines
Tatyana Golubeva, Viktor Pokussov, Sergey Konshin, Boris Tshukin and Evgeniy Zaytcev

BigR&I Session 2: Big Data Research and Innovation 3

Session Chair: Natalia Miloslavskaya, MEPhI
Room: Vienna I+II

The Use of Entropy Measure for Higher Quality Machine Learning Algorithms in Text Data Processing
Anna I. Guseva and Igor A. Kuznetsov

The analysis of big data and the accuracy of financial reports
Viktor P. Suyts, Alexander S. Shadrin and Pavel Y. Leonov

Adaptation of Cluster Analysis Methods in Respect to Vector Space of Social Network Analysis Indicators for Revealing Suspicious Government Contracts
Davydenko V. I., Morozov N. V., and Burmistrov M. I.

19:30-21:30 Reception Party
(at Vienna House Diplomat Hotel - conference venue)

TUESDAY 22 AUGUST 2017

09:00-10:30

Plenary Session: Keynote II

Big Data Security and Privacy: Developments and Directions

Bhavani Thuraisingham, The University of Texas at Dallas

Session Chair: Eleni Karatza, Aristotle University of Thessaloniki

Room: Prague A+B

10:30-11:00

Coffee Break

11:00-12:30

Parallel Sessions

FiCloud Session 5: Security, Privacy and Trust 2

Session Chair: Martine Bellaiche, École Polytechnique de Montréal

Room: Prague A+B

Security in Lightweight Network Function Virtualisation for Federated Cloud and IoT

Philippe Massonet, Laurent Deru, Amel Achour, Sebastien Dupont, Louis-Marie Croisez, Anna Levin and Massimo Villari

Concept for Increasing Security of National Information Technology Infrastructure and Private Clouds

Melnikov D.A. Durakovskiy A.P., Dvoryankin S.V., and Gorbatov V.S.

Secure Self-Destruction of Shared Data in Multi-Cloud IoT

Farida Ali Guechi and Ramdane Maamri

Secure and Reliable Internet of Things Systems for Healthcare

Göran Pulkkis, Magnus Westerlund, Jonny Karlsson and Jonas Tana

A Framework for Trust Assessment of Security Systems on Flexible Networks

Serif Bahtiyar, Orhan Ermis, M. Ufuk Caglayan

MobiWis Session 5: Mobile and Wireless Networking

Session Chair: Tor-Morten Groenli, Oslo School of Arts, Communication & Technology

Room: Prague D

Blaubot - Hassle-free Multi-Device Applications

Peter Barth and Henning Groß

Overhead Analysis of Inter-Domain Mobility Management in Multicasting-Supported FPMIPv6 Networks
Hanjun Cho and Jongpil Jeong

Software Techniques for Implementing Dynamic Network-Aware Energy-Efficient Download Managers
Louis Soley and Dwaine Clarke

New Formulations for an Optimal Connectivity Approach for Mobile Ad-Hoc Networks
Pablo Adasme, Ismael Soto and Fabian Seguel

On Cost-Effective Inter-LMA Domain Handover Scheme in NEMO-PMIPv6 Networks
Shinyeol Park, Changyong Um, and Jongpil Jeong

Industry Session: Invited Industry Talks

Session Chair: Marcin Bajer, ABB Corporate Research
Room: Vienna I+II

What does the future hold for Data Intensive Computing and the Modern Data & Analytics platform?
Richard L. Harman, Cloudera Inc.

Simulation on Hadoop
Justin Lyon, Simudyne Ltd

Engineering Augmented Reality Applications in Industrial Settings
Markus Aleksy, ABB Corporate Research

12:30-13:30

Lunch

13.30-15:00

Parallel Sessions

FiCloud Session 6: Software Architecture and Middleware

Session Chair: Stefan Bosse, Universität Bremen
Room: Prague A+B

Production Deployment Tools for IaaS: an Overall Model and Survey
Hélène Coullon, Dimitri Pertin and Christian Perez

An approach to failure prediction in a cloud based environment
Hussaini Adamu, Bashir Mohammed, Ali Bukar Maina, Andrea Cullen, Hassan Ugail, Irfan Awan

Performance Modelling and Analysis of an OpenStack IaaS Cloud Computing Platform

K.M. Maiyama, Bashir Mohammed, M. A. Kamala, D. D. Kouvatsos and M. Kiran

Self-Healing in Dynamic Web Service Composition

Venushini Rajendran, Fang-Fang Chua and Gaik-Yee Chan

P-Spar(k)ql: SPARQL evaluation method on Spark GraphX with parallel query plan

Gergo Gombos and Attila Kiss

MobiWis Session 6: Web, Cloud and Distributed Systems

Session Chair: Kari Salo, Metropolia University of Applied Sciences

Room: Prague D

Adopting SOA in public service provision

Gebremariam Mesfin, Tor-Morten Grønli, Gheorghita Ghinea and Muhammad Younas

Linux Server Monitoring and Self-Healing System using Nagios

Tanapat Anusas-amornkul and Sirasit Sangrat

Performance Analysis of Cloud Computing Infrastructure

Ales Komarek, Jakub Pavlik, and Vladimir Sobeslav

Analysis and Solution Model of Distributed Computing in Scientific Calculations

Josef Horalek and Vladimír Soběslav

Analysis and Dynamical Simulation of Heart Rate Influence upon Physical Load

Jan Kubicek, Martin Augustynek, Marek Penhaker, Martin Cerny, and Iveta Bryjova

Innovate-Data Session 1: Big Data Innovation

Session Chair: Jānis Grabis, Riga Technical University

Room: Vienna I+II

Practical String Dictionary Compression Using String Dictionary Encoding

Shunsuke Kanda, Kazuhiro Morita and Masao Fuketa

Bringing Big Data into the Car: Does it scale?

Philipp M. Grulich and Olaf Zukunft

Fragmenting Big Data to boost the performance of MapReduce in geographical computing contexts

Marco Cavallo, Giuseppe Di Modica, Carmelo Polito, and Orazio Tomarchio

15:00-15:30

Coffee Break

15:30-17:00

Parallel Sessions

FiCloud Session 7: Context-awareness and Location-awareness

Session Chair: Fang-Fang Chua, Multimedia University, Cyberjaya

Room: Prague A+B

An Adaptive Multimedia signal transmission Strategy in Cloud-Assisted Vehicular Networks

Xing Liu, Zheyi Chen, Kun Hua, Mingyue Liu and Junyi Zhang

SAVI-IoT: A Self-Managing Containerized IoT Platform

Hamzeh Khazaei, Hadi Bannazadeh and Alberto Leon-Garcia

iDoRemind: A Location-Based Reminder Application for Android

Srihari Reddy Pamulapati and Longzhuang Li

A Cross-Layer BPaaS Adaptation Framework

Kyriakos Kritikos, Chrysostomos Zeginis, Frank Griesinger, Daniel Seybold, and Jorg Domaschka

DS4IDS Session: Data Science for Intelligent Decision Support

Session Chair: Filipe Portela, University of Minho, Portugal

Room: Prague D

Towards an Intelligent Systems to predict nosocomial infections in Intensive Care

Daniela Oliveira, Filipe Portela, Manuel Santos and Fernando Rua

Importance of Statistics for Data Mining and Data Science

Vitor Ribeiro, André Rocha, Rui Peixoto, Filipe Portela and Manuel Filipe Santos

Leveraging Edge Computing through Collaborative Machine Learning

Kurt Portelli and Christos Anagnostopoulos

Innovate-Data Session 2: Big Data Processing

Session Chair: Olaf Zukunft, Hamburg University of Applied Sciences

Room: Vienna I+II

Tabular Data Anomaly Patterns

Dina Sukhobok, Nikolay Nikolov and Dumitru Roman

Near real-time big-data processing for data driven applications

Jānis Kampars and Jānis Grabis

Document-Oriented Data Schema for Relational Database Migration to NoSQL

Shady Hamouda and Zurinahni Zainol

17:00-18:30

Parallel Sessions

FiCloud Session 8: Cloud Network Scheduling and Application

Session Chair: Vicente Casares-Giner, Universitat Politècnica de València

Room: Prague A+B

Comparative Analysis of Two Operational Developments within IT Companies' Servitization - Microsoft and HP

Lukas Bickel and Natalia Kryvinska

An Integrated Platform for Dynamic Adaptation of Multi-Tenant Single Instance SaaS Applications

Fatma Mohamed, Rabeb Mizouni, Mohammad Abu-Matar, Mahmoud Al-Qutayri and Jon Whittle

A Raspberry Pi Based Scalable Software Defined Network Infrastructure for Disaster Relief Communication

Ron Austin, Peter Bull, and Shaun Buffery

Cloud Task Scheduling based on Swarm Intelligence and Machine Learning

Gaith Rjoub and Jamal Bentahar

AKEH Session: Applied Knowledge Engineering for Healthcare

Session Chair: José Machado, University of Minho, Portugal

Room: Prague D

Improving Maternity Care with Business Intelligence

Patricia Loreto, Francisca Fonseca, Ana Morais, Hugo Peixoto, Antonio Abelha and Jose Machado

Continuous Ambulatory Peritoneal Dialysis: Business Intelligence applied to patient monitoring - CAPD study and statistics
Catarina Peixoto, Cláudia Brito, Mariana Fontainha, António Abelha, Hugo Peixoto and José Machado

Business Intelligence for Cardiovascular Disease Assessment
Cristiana Silva, Joana Pereira, Luís Costa, António Abelha, Hugo Peixoto and José Machado

Improving Nursing Practice through Interoperability and Intelligence
Daniela Oliveira, Júlio Duarte, António Abelha and José Machado

PMECT/SP4SC/ 5GET Session: Advanced Networking

Session Chair: Peter Bull, Birmingham City University

Room: Vienna I+II

Handover Key Management in An LTE-based Unmanned Aerial Vehicle Control Network
Gicheol Wang, Kwangjae Lim, Byoung-Sun Lee, and Jae Young Ahn

Secrecy Analysis of Cooperative Network with Untrustworthy Relays Using Location-Based Multicasting Technique
Michael Atallah and Georges Kaddoum

Performance Modeling of SDN with NFV under or aside the Controller
Ahmed Fahmin, Yuan-Cheng Lai, Md. Shohrab Hossain, Ying-Dar Lin and Dipon Saha

Opportunistic Relaying Protocol for Device-to-Device Communication with Cognitive Radio Capability
Ahmed Musa, Israa Alkhshainy, Haythem Bany Salameh and Yasser Jararwah

19:30-21:30

Banquet (Dinner)

(at Vienna House Diplomat Hotel - conference venue)

WEDNESDAY 23 AUGUST 2017

09:00-10:30

Parallel Sessions

Keynote III

Big Data 2.0 Processing Engines

Sherif Sakr, King Saud bin Abdulaziz University for Health Sciences

Session Chair: Irena Holubova, Charles University

Room: Prague B

FiCloud Session 9: Smart Environment

Session Chair: Natalia Kryvinska, University of Vienna, Austria

Room: Prague A

An Ubiquitous Multi-Agent Mobile Platform for Distributed Crowd Sensing and Social Mining

Stefan Bosse and Evangelos Pournaras

Critical Analysis in the Research Area of Insider Threats

Anton Zaytsev, Anatoly Malyuk and Natalia Miloslavskaya

DLP as an Integral Part of Network Security Intelligence Center

Natalia Miloslavskaya, Victor Morozov, Alexander Tolstoy and Dennis Khassan

Intelligent Checkpointing Strategies for IoT System Management

Francois Aissaoui, Gene Cooperman, Thierry Monteil and Said Tazi

10:30-11:00

Coffee Break

11:00-12:30

Parallel Sessions

FiCloud Session 10: Clouds at the Edges

Session Chair: Said Tazi, LAAS-CNRS

Room: Prague A

Converging Mobile Edge Computing, Fog Computing, and IoT Quality Requirements

Paolo Bellavista, Luca Foschini and Domenico Scotece

Edge-supported Approximate Analysis for Long Running Computations

Ali Reza Zamani, Javier Diaz-Montes, Manish Parashar, Ioan Petri and Omer Rana

Service Orchestration in Fog Environments

Karima Velasquez, David Perez Abreu, Diogo Gonçalves, Luiz Bittencourt, Marilia Curado, Edmundo Monteiro and Edmundo Madeira

A Holistic Monitoring Service for Fog/Edge Infrastructures: a Foresight Study

Mohamed Abderrahim, Meryem Ouzzif, Karine Guillouard, Jérôme Francois and Adrien Lebre

Crowdcloud: Cloud of the Crowd

Mahmood Hosseini

ICI Session 1: Intercloud and IoT 1

Session Chair: Antonino Galletta, University of Messina

Room: Prague B

Building an IoT Data Hub with Elasticsearch, Logstash and Kibana

Marcin Bajer

Changes of Cyber-Attacks Techniques and Patterns after the Fourth Industrial Revolution

Chang-Hoi Hu, Seong-Pyo Kim, Yoon-Soo Kim and Jung-Ho Eom

SLAs for Industrial IoT: Mind the Gap

Alessandro Vittorio Papadopoulos, Sara Abbaspour Asadollah, Mohammad Ashjaei, Saad Mubeen, Hongyu Pei-Breivold and Moris Behnam

Context-aware enterprise modelling towards agile models development

Julia Bilinkis (Stavenko), Elina Zaytseva, Anastasia Zueva, and Nikolai Kazantsev

MobiApps/AWMA Session 1: Mobile Web and Apps 1

Session Chair: Mohammed Ghazal, Abu Dhabi University

Room: Prague D

A Security Framework for Mobile Health Applications

Christopher Lakin and Geethapriya Thamilarasu

IntelliMeet: Collaborative Mobile Framework for Automated Participation Assessment
Mohammed Ghazal, Ashraf Khalil, Tara Al Hadithy, Anas Al Tarabsheh, and Samr Ali

Towards Remote Monitoring of Vital Signs without Body Instrumentation

Yaser Othman, Montasir Qasymeh, Ashraf Khalil, and Mohammed Ghazal

SNAMS Session 1: Social Networks Analysis and Management 1

Session Chair: Khaled Alofie, Taibah University

Room: Vienna I+II

Dynamic Network Analysis of the Euro2016 Final Preliminary results

Pavlina Kröckel, Alexander Piazz and Kathrin Neuhofer

Generating Cultural Personas From Social Data A Perspective of Middle Eastern Users

Joni Salminen, Sercan Sengün, Haewoon Kwak, Bernard Jansen, Jisun An, Soon-Gyo Jung, Sarah Vieweg and D. Fox Harrell

Detecting Communities by Integrating Perspective Communities as Semantic Information

Loubna Boujlaleb, Ali Idarrou, and Driss Mammass

12:30-13:30

Lunch

13:30-15:00

Parallel Sessions

FiCloud Session 11: Cloud Federation and Migration

Session Chair: Muhammad Younas, Oxford Brookes University

Room: Prague A

BOSS: a Multitenancy Ad-Hoc Service Orchestrator for Federated Openstack Clouds

Antonino Galletta, Lorenzo Carnevale, Antonio Celesti, Maria Fazio and Massimo Villari

Flexible composition of System of Systems on cloud federation

Wided Mathlouthi and Narjes Bellamine Ben Saoud

Exploring Live Cloud Migration On Amazon EC2

Ibrahim Ejdavid A.Mansour, Hamid Bouchachia and Kendra Cooper

A Watchdog Service Making Container-Based Micro-Services Reliable in IoT Clouds

Antonio Celesti, Lorenzo Carnevale, Antonino Galletta, Maria Fazio and Massimo Villari

ICI Session 2: Intercloud and IoT 2

Session Chair: Bashir Mohammed, University of Bradford

Room: Prague B

Sensing for the Internet of Things and Its Applications
Salha M. Alzahran

Adopting Formal Approaches for Monitoring Sensors of Intercloud Systems
Andreea Buga and Sorana Tania Nemes

Adaption of a Privilege Management Infrastructure (PMI) Approach to Industry 4.0
Kevin Wallis, Florian Kemmer, Eugen Jastremskoj and Christoph Reich

WPTE: Weight-based Probabilistic Trust Evaluation scheme for WSN
Adnan Ahmed and Ali Raza Bhangwar

MobiApps/AWMA Session 2: Mobile Web and Apps 2

Session Chair: Wael Mohamed Elmedany, University of Bahrain
Room: Prague D

A Mobile-Programmable Smart Mirror for Ambient IoT Environments
Mohammed Ghazal, Tara Al Hadithy, Yasmina Al Khalil, Muhammad Akmal, and Hassan Hajjdiab

Complexity of Cyber Security Architecture for IoT Healthcare Industry: A Comparative Study
Aysha K. Alharam, and Wael El-madany

A DSL for the development of heterogeneous applications
Darwin Alulema, Luis Iribarne, Javier Criado

SNAMS Session 2: Social Networks Analysis and Management 2

Session Chair: Joni Salminen, Hamad Bin Khalifa University
Room: Vienna I+II

Identifying Emotions in Social Media: Comparison of Word-emotion Lexicons
Ema Kusen, Giuseppe Cascavilla, Kathrin Figl, Mauro Conti and Mark Strembeck

A Data Streaming Approach to Link Mining in Criminal Networks
Giacomo Marciani, Michele Porretta, Matteo Nardelli and Giuseppe F. Italiano

Comparison of Two Domain Adaptation Approaches for Classifying Disaster-related Twitter Data
Oleksandra Sopova, HongMin Li and Doina Caragea

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