PROGRAM GUIDE

IEEE AINA 2018

The 32^{nd} IEEE International Conference on
Advanced Information Networking and Applications

May 16-18, 2018
Pedagogical University of Cracow, Poland

Sponsored by:
IEEE Technical Committee on Distributed Processing (TCDP)

IEEE computer society

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Pedagogical University of Cracow, Poland

PEDAGOGICAL UNIVERSITY OF CRACOW

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Leonard Barolli, Fukuoka Institute of Technology, Japan

Message from IEEE AINA 2018 Steering Committee Co-Chairs

Welcome to the 32-nd IEEE International Conference on Advanced Information Networking and Applications (IEEE AINA 2018). It is our great pleasure and honor to held AINA 2018 at Pedagogical University of Cracow, Poland from May 16 to May 18, 2018. On behalf of the AINA Steering Committee and IEEE AINA 2018 Organizing Committee, we would like to express to all participants our cordial welcome and high respect.

AINA is an International Forum, where scientists and researchers from academia and industry working in various scientific and technical areas of networking and distributed computing systems can demonstrate new ideas and solutions in distributed computing systems.

AINA was born in Asia, but it is now an International Conference with high quality thanks to the great help and cooperation of many international friendly volunteers. AINA is a very open society and is always welcoming international volunteers from any country and any area in the world. AINA is an International Conference sponsored by IEEE. In conjunction with IEEE AINA 2018 main conference, we have also 15 International Workshops.

An international conference can be organized by support and great voluntary efforts of many people and organizations. Our main responsibility is to coordinate various tasks carried out with other willing and talented volunteers.

We would like to thank IEEE AINA 2018 General Co-Chairs, PC Co-Chairs, Workshops Co-Chairs, Track Area Chairs, PC Members, and Workshops Organizers for their great efforts to make IEEE AINA 2018 a very successful event. We have special thanks to Makoto Ikeda as Finance Chair, and Donald Elmazi, Yi Liu and Miralda Cuka as Web Administrator Co-Chairs.

We would like to take opportunity to thank all members of the organization committee and program committee as well as all reviewers for their hard work to make the reviews on time and authors for submitting the papers. We would like to give special thanks to IEEE as Sponsor of IEEE AINA 2018.

Finally, we would like to thank Local Arrangement Team for the technical support and good local arrangement for the conference.

We do hope that you will have a great time in Pedagogical University of Cracow, Poland.

IEEE AINA Steering Committee Co-Chairs

Makoto Takizawa, Hosei University, Japan
Leonard Barolli, Fukuoka Institute of Technology, Japan

Message from IEEE AINA 2018 General Co-Chairs

It is our great pleasure to welcome you all at the 32-nd IEEE International Conference on Advanced Information Networking and Applications (IEEE AINA 2018), which will be held at Pedagogical University of Cracow, Poland from May 16 to May 18, 2018.

IEEE AINA International Conference is a forum for sharing ideas and research work in the emerging areas of information networking and their applications. The area of advanced networking has grown very rapidly and the applications around it have experienced an explosive growth especially in the area of pervasive and mobile applications, sensor networks, ad-hoc networks, vehicular networks, multimedia computing and social networking, semantic collaborative systems, as well as Grid, P2P, IoT and Cloud Computing. This advanced networking revolution is transforming the way people live, work, and interact with each other, and is impacting the way business, education, entertainment, and health care are operating. The papers included in the proceedings covers theory, design and application of computer networks, distributed computing and information systems.

Each year AINA receives a lot of paper submissions from all around the world. It has maintained high quality accepted papers and is aspiring to be one of the main international conferences on the Information Networking in the world. In conjunction with IEEE AINA 2018 conference there are 15 workshops, which also accepted good quality papers.

An international conference of this size requires the support and help of many people. A lot of people have helped and worked hard to produce a successful IEEE AINA 2018 technical program and conference proceedings. First, we would like to thank all authors for submitting their papers, the session chairs and distinguished keynote speakers. We are indebted to Program Area Chairs, Program Committee Members and reviewers, who carried out the most difficult work of carefully evaluating the submitted papers.

We would like to give our special thanks to Prof. Makoto Takizawa and Prof. Leonard Barolli, the Co-Chairs of the Steering Committee for their strong encouragement, guidance and insights, and for spending a lot of energy for conference organization and shaping the conference program. We would like to thank PC Co-Chairs and Workshops Co-Chairs of AINA 2017 for their great contribution to the success of the conference. Our special thanks go to Makoto Ikeda as Finance Chair, and Donald Elmazi, Yi Liu and Miralda Cuka as Web Administrator Co-Chairs.

Finally, we would like to thank the Local Arrangement Team for the support and good local arrangement for the conference.

We do hope that you will have a great time in Cracow, Poland

IEEE AINA 2018 General Co-Chairs

Marek R. Ogiela, AGH University of Science and Technology, Poland
Wenny Rahayu, La Trobe University, Australia

Message from IEEE AINA 2018 Program Committee Co-Chairs

Welcome to the 32-nd IEEE International Conference on Advanced Information Networking and Applications (IEEE AINA 2018), which will be held at at Pedagogical University of Cracow, Poland from May 16 to May 18, 2018.

The purpose of AINA conference is to bring together researchers, developers, and industrial experts to share new ideas and recent research results in the emerging areas of information networking and their applications. Nowadays, networks are going through a rapid evolution. The papers included in the proceedings cover all aspects of theory, design, and application of computer networks and distributed computing systems. Most of the papers deal with new trends in information networking, such as wireless sensor networks, ad-hoc networks, cloud computing, peer-to-peer systems, grid computing, pervasive and ubiquitous systems, multimedia systems, security, multi-agent systems, IoT and web-based systems.

This edition AINA received many paper submissions from all over the world. Each submission was peer-reviewed by program committee members and invited external reviewers. Finally, the program committee accepted 153 papers (about 27% acceptance ratio), which will be presented during the conference days. Unfortunately, many interesting and good papers could not be accepted in IEEE AINA 2018 due to the limited number of time slots allocated for presentations at the conference.

We are very proud and honored to have two distinguished keynote talks by Prof. Fatos Xhafa, Technical University of Catalonia, Spain and Dr. Francesco Palmieri, University of Salerno, Italy who will present their recent work and will give new insights and ideas to the conference participants.

Organizing an international conference of this size is of course a team effort. Therefore, we gladly admit that we had the help of many very professional people. First of all, we would like to thank all the authors for their interesting contributions since they shape the program and make it interesting for the audience. Moreover, we would like to express our thankfulness to all program-vice chairs for their great efforts. Additionally, we would like to thank all program committee members and reviewers who carried out the most important work to evaluate the submitted papers. We also thank the Workshops Co-Chairs for organizing many excellent workshops and symposiums, which enrich the conference and provide additional opportunities for discussions and future co-operations.

The great success of the AINA conference series would not be possible without the enormous commitment and support of the steering committee co-chairs Prof. Makoto Takizawa and Prof. Leonard Barolli. Therefore, we would like to thank them for their strong encouragement and guidance.

The general coordination of an event such as AINA conference requires a lot of coordination effort as well as many other activities related to the conference organization. Here, we thank the General Co-Chairs for their great support and invaluable suggestions. We give special thanks to Makoto Ikeda as Finance Chair and Donald Elmazi, Yi Liu and Miralda Cuka as Web Administrator Co-Chairs for their great efforts and efficient work to deal with many conference matters.

We hope you will enjoy the conference and readings and have a great time in Cracow, Poland.

IEEE AINA 2018 Program Committee Co-Chairs

Lidia Ogiela, AGH University of Science and Technology, Poland
Tomoya Enokido, Rissho University, Japan
Nadeem Javaid, COMSATS IIT, Pakistan

Message from IEEE AINA 2018 Workshops Co-Chairs

Welcome to AINA 2018 Workshops to be held in conjunction with the 32-nd IEEE International Conference on Advanced Information Networking and Applications (IEEE AINA 2018) at Pedagogical University of Cracow, Poland from May 16 to May 18, 2018. The goal of AINA workshops is to provide a forum for international researchers and practitioners to exchange and share their new ideas, research results, and ongoing work on leading-edge topics in the different fields of information networks and their applications. Some of the accepted workshops deal with topics that open up perspectives beyond the ordinary, thus, enriching the topics usually addressed by the AINA conference.

For this edition, the following 15 symposiums and workshops will be held with IEEE AINA 2018.

1. The 14-th International Symposium on Frontiers of Information Systems and Network Applications (FINA 2018)
2. The 14-th International Workshop on Heterogeneous Wireless Networks (HWISE 2018)
3. The 13-th International Workshop on the Performance Analysis and Enhancement of Wireless Networks (PAEWN 2018)
4. The 11-th International Symposium on Mining and Web (MAW 2018)
5. The 11-th International Workshop on Bio and Intelligent Computing (BICom 2018)
6. The 11-th International Workshop on Telecommunication Networking, Applications and Systems (TeNAS 2018)
7. The 6-th International Workshop on Collaborative Emerging Systems (COLLABES 2018)
8. The 6-th International Workshop on Cloud Computing Projects and Initiatives (CCPI 2018)
9. The 5-th International Workshop on Network and System Management and Monitoring (NetSMM 2018)
10. The 5-th International Workshop on Security Intricacies in Cyber-Physical Systems and Services (INTRICATE-SEC 2018)
11. The 5-th International Workshop on Energy-Aware Systems, Communications and Security (EASyCoSe 2018)
12. The 4-th International Workshop on Engineering Energy Efficient InternetWorked Smart seNsors (E3WSN 2018)
13. The 3-rd International Workshop on Innovative Technologies in Informatics and Networking (WITIN 2018)
14. The 3-rd International Workshop on Big Data Processing in Online Social Network (BOSON 2018)
15. The 1-st International Workshop on Internet of Everything and Machine Learning Applications (IOEMLA 2018)

We would like to thank the community for their great response to IEEE AINA 2018 workshops. The excellent technical program of the workshops was the result of a professional work from workshop chairs, workshop program committees, reviewers, and authors.

We would like to give our special thanks to Prof. Makoto Takizawa and Prof. Leonard Barolli, the Steering Committee Chairs of IEEE AINA International Conference for their strong encouragement and guidance to organize the AINA 2018 workshops and symposiums. We would like to thank IEEE AINA 2018 General Co-Chairs their advices to make possible organization of IEEE AINA 2018 workshops and symposiums. We are thankful to IEEE AINA 2018 Program Co-Chairs for their support and help to prepare the technical program of AINA 2018 workshops and symposiums. We would like to express special thanks to Makoto Ikeda, Donald Elmazi, Yi Liu and Miralda Cuka for their timely and unlimited support as web administrators.

We wish all of you entertaining and rewarding experience in all workshops and the IEEE AINA 2018 International Conference.

IEEE AINA 2018 Workshops Co-Chairs

Kin Fun Li, University of Victoria, Canada
Elis Kulla, Okayama University of Science, Japan
Stephane Maag, Telecom SudParis, France

IEEE AINA 2018 Keynote Talk I

Prof. Fatos Xhafa, Technical University of Catalonia, Barcelona, Spain

BigData eLearning Analytics: The Cornerstone for New Generation of Learning Management Systems and Online Collaboration

Abstract: BigData Analytics has emerged as a disruptive technology in many fields of businesses engineering and knowledge management. Among them, BigData eLearning Analytics play an important role in Virtual Campuses and eLearning platforms. Initially, BigData eLearning Analytics served as a basis for monitoring and decision making in traditional Learning Management Systems (LMS). However, BigData eLearning Analytics is playing a crucial role in the design of new LMS systems by enabling not only learning analytics but also the A3 paradigm (Anywhere, Anytime, Awareness), emotion-aware learning, trustworthy e-assessment and other trends to maximize learner's motivation, experiences and outcome.

In this talk we will address and discuss current and new trends and challenges arising in BigData eLearning Analytics as a cornerstone for new generation of Learning Management Systems and Online Collaboration. The talk we will focus on massive data processing and mining techniques for BigData eLearning under efficiency and scalability requirements. We will analyse and discuss techniques related to software patterns for massive data processing, and identify various issues arising in mining large data sets. We will exemplify the discussion by real life examples, large learning data sets and case studies from a real Virtual Campus.

IEEE AINA 2018 Keynote Talk II

Dr. Francesco Palmieri, University of Salerno, Italy

Introducing Energy-Awareness in Communication Infrastructures: A Novel Approach to Sustainable Networking

Abstract: Despite the significant degree of technological maturity reached by modern telecommunications infrastructures, new critical issues are emerging as side effects associated to their energy consumption, environmental impact and related costs, now accounting for an important part of the networks' operational expenditures. For this reason, the power consumption of telecommunication networks has recently attracted the attention of both researchers and field experts in order to contain the associated energy bills and reduce their ecological impact. Many of the proposed countermeasures, introducing energy effciency in network equipment, focus exclusively on the reduction of the power consumption, without adequately considering more traditional network engineering objectives such as balancing resource utilization, routing policy, or resilience schemes. As a consequence, network control plane strategies passed from one extreme to the other, from being totally energy-unaware to exclusively energy-efficient at the expenses of load-balancing, with obvious impacts on the power consumption in the former case and on the blocking rate in the latter one. Correctly handling this problem implies introducing the concept of energy awareness within the overall routing and trafic engineering framework, by also relying on the possibility of using alternate energy sources and more the trafic according to the different billing policies. This also means solving a very com- plex multi-objective optimisation approach aiming at containing the network's energy consumption and ecological impact while balancing the overall load and maintaining an acceptable connection demand satisfaction rate. The optimal solutions to such an optimisation problem, can be found only in unaffordable times by using integer linear programming, so that other near-optimal solution based on novel heuristic methods and engineering practices are needed.

Hence, the main goal of this keynote is presenting the current challenges and research trends related to the introduction of energy-awareness in communication infrastructures by exploring the emerging models necessary to formally characterize the energy consumption within networks and the new energy-aware protocols, architectures, techniques and paradigms that, by considering power usage as a new constraint, are capable to optimize the use of energy and reduce the ecological footprint in order to achieve more sustainable large scale communication infrastructures that will be a basis for growth and prosperity.

IEEE AINA 2018 Main Conference and Workshops Program

Wednesday, May 16, 2018

08:00 Registration

09:00-10:30 Single Session: Opening and Keynote Talk I

IEEE AINA 2018 Keynote Talk I (PLENARY ROOM)

Prof. Fatos Xhafa, Technical University of Catalonia, Barcelona, Spain

Title: BigData eLearning Analytics: The Cornerstone for New Generation of Learning Management Systems and Online Collaboration

10:30-11:00 Coffee Break

11:00-13:00 Parallel Sessions

AINA-S1: Network Protocols

Chair: Makoto Takizawa, Hosei University, Japan

1. Queue State Based Dynamical Routing for Non-Geostationary Satellite Networks
   Hezhong Li, Heteng Zhang, Liang Qiao, Feilong Tang, Wenchao Xu, Long Chen, Jie Li
2. Experimental Analysis of the Efficiency of Shared Access in IEEE802.15.4-TSCH Networks with Sporadic Traffic
   Sahar Ben Yaala, Fabrice Théoleyre, Ridha Bouallegue
3. Time Modeling with NS2 in UHF RFID Anti-Collision Protocols
   Rahma Ben Fraj, Vincent Beroulle, Nicolas Fourty, Aref Meddeb

4. A Protocol to Prevent Malicious Information Flow in P2PPS Systems
   Shigenari Nakamura, Lidia Ogiela, Tomoya Enokido, Makoto Takizawa
5. A Three-Dimensional Stabilization Protocol for Time-Slotted Multi-Hop Cognitive Radio Networks with Channel Hopping
   Paulo Aragao, Markus Engel and Reinhard Gotzhein
6. d-SHAM: An O(d) Scalable Routing Algorithm
   Manaf Zghaibeh and Najam Ul Hassan

AINA-S2: VANETs

Chair: Takuya Yoshihiro, Okayama University, Japan

1. A Multi-path Extension to RDV Routing Scheme for Static-node-assisted Vehicular Networks
   Daichi Araki and Takuya Yoshihiro
2. QCH-MAC: A Qos-aware Centralized Hybrid MAC Protocol for Vehicular Ad Hoc NETworks
   Narjes Boulila, Mohamed Hadded, Anis Laouiti, Leila Azouz Saidane
3. Smart Directional Data Aggregation in VANETs
   Sabri Allani, Richard Chbeir, Taoufik Yeferny, Sadok Ben Yahia
4. A MAC Multi-channel Scheme based on Learning-Automata for Clustered VANETs
   Emna Daknou, Nabil Tabbane, Mariem Thaalbi
5. Vehicle Control Method at T-Junctions for Mixed Environments Containing Autonomous and Non-Autonomous Vehicles
   Hiroto Furukawa, Ryozo Kiyohara, Yuich Tokunaga, Masashi Saito
6. Evaluating UAV-to-Car Communications Performance: Testbed Experiments
   Seilendria A. Hadiwardoyo, Enrique Hernández-Orallo, Carlos T. Calafate, Juan-Carlos Cano, Pietro Manzoni

AINA-S3: Wireless Sensor Networks I

Chair: Alireza Shahrabi, Glasgow Caledonian University, United Kingdom

1. Enhanced Event Reliability in Wireless Sensor Networks
   Muhammad Adeel Mahmood, Peter Andreae, Ian Welch
2. Layer-Adaptive Communication and Collaborative Transformed-Domain Representations to Optimize Performance in Next-Generation WSNs
   Muzammil Behzad, Manal Abdullah, Muhammad Talal Hassan, Yao Ge, Mahmood Ashraf Khan
3. Origin-mediated Sink Mobility Support for Large-scale Phenomena Monitoring in IWSNs
   Myung-Eun Kim, Youngsung Son, Cheonyong Kim, Yongbin Yim, Sang-Ha Kim
4. Efficient Data Aggregation in Wireless Sensor Networks with Multiple Sinks
   Gaukhar Yestemirova and Sain Saginbekov
5. Graph Colouring MAC Protocol for Underwater Sensor Networks
   Faisal Alfouzan, Alireza Shahrabi, Seyed Mohammad Ghoreyshi, Tuleen Boutaleb
6. Optimal Speed Allocation in Sink-based Energy Harvesting Wireless Sensor Networks
   Abbas Mehrabi

AINA-S4: Parallel and Distributed Systems

Chair: Markus Aleksy, ABB AG, Germany

1. Availability Analysis of a Disaster Recovery Solution through Stochastic Models and Fault Injection Experiments
   Júlio Mendonça, Ricardo Lima, Rubens Matos, João Ferreira, Ermeson Andrade
2. Utilizing HoloLens to Support Industrial Service Processes
   Markus Aleksy, Michael Troost, Falk Scheinhardt, Gunnar T. Zank

3. Resource Exploration using Lèvy Walk on Unit Disk Graphs
   Kenya Shinki, Naohiro Hayashibara
4. Eventual Leader Election in Shared-Memory Dynamic Systems
   Cátia Khouri, Fabíola Greve
5. An Energy-Efficient Process Replication Algorithm Based on the Active Time of Cores
   Tomoya Enokido, Dilawaer Duolikun, Makoto Takizawa
6. NIEP: NFV Infrastructure Emulation Platform
   Thales Nicolai Tavares, Leonardo da Cruz Marcuzzo, Vinícius Fulber Garcia, Giovanni Venâncio de Souza, Muriel Figueredo Franco, Lucas Bondan, Filip De Turck, Lisandro Zambenedetti Granville, Elias Procópio Duarte Junior, Carlos Raniery Paula dos Santos, Alberto Egon Schaeffer-Filho

FINA-S1: Multimedia and Network-based Applications

Chair: Tomoya Enokido, Rissho University, Japan

1. Using Postal Mail System to Teach Packet Switching in Computer Networks
   Yongzhong Zhang and Jianhua Yang
2. Characterizing Students' Behavior based on Their Participation in Property Course in New Zealand
   Shadi Esnaashariors, Lesley Gardner, Michael Rehm
3. Analysis and Forecasting of Web Content Dynamics
   Maria Carla Calzarossa and Daniele Tessera
4. Early Detection of Network Incident using Open Security Information
   Hiroki Kuzuno and Shintaro Otsuka
5. Rules to Transform Specific Description Language Diagram Into Coloured Petri Nets
   Hana Mejdi, Oussama Kallel, Salem Hasnaoui

BOSON-S1: Distributed Computing Methods and Applications

Chair: Flora Amato, University of Naples Federico II, Italy

1. A Subword-based Deep Learning Approach for Sentiment Analysis of Political Tweets
   Marco Pota, Massimo Esposito, Marco A. Palomino, Giovanni L. Masala
2. Text Analysis on User Generated Content: The Rap Lyrics Challenge
   Alessandro Maisto, Serena Pelosi, Raffaele Guarasci, Pierluigi Vitale
3. Towards a Virtual Reality Cognitive Training System for Mild Cognitive Impairment and Alzheimer's Disease Patients
   G. Caggianese, A. Chirico, G. De Pietro, L. Gallo, A. Giordano, M. Predazzi, P. Neroni
4. Open Information Extraction for Italian Sentences
   Emanuele Damiano, Aniello Minutolo, Massimo Esposito

HWISE-S1: Mobile Communication Systems and Networking

Chair: Kazunori Uchida, Fukuoka Institute of Technology, Japan

1. Dijkstra Algorithm Based Ray Tracing: A Case Study for Tunnel Structures
   Kazunori Uchida and Leonard Barolli
2. Towards a Secured Clustering Mechanism for Messages Exchange in VANET
   Amira Kchaou, Ryma Abassi, Sihem Guemara El Fatmi
3. Design of a Small Metamtrial Antenna for Millimetric Wave Applications
   Bouthaina Smari, Mondher Labidi, Fethi Choubani
4. A Miniaturized Invasive Antenna Study for a Better Performance in Medical Application
   Amal Bouazizi, Ghada Zaibi, Mounir Samet, Abdennaceur Kachouri

INTRICATE-SEC-S1: Authentication and Cryptography

Chair: Anne V. D. M. Kayem, University of Cape Town, South Africa

1. Symmetric Key-Based Lightweight Authentication Protocols for RFID Security
   Rajaguru K and R.C. Hansdah
2. Towards the Formal Validation of a Ticket-based Authentication Scheme for VANETs
   Ons Chikhaoui, Aida Ben Chehida Douss, Ryma Abassi, Sihem Guemara El Fatmi
3. Study on Sensitive Data Protection based on SEAndroid
   Jun Yang, Zijian Li, Baojiang Cui

13:00-14:00 Lunch Break

14:00-16:00 Parallel Sessions

AINA-S5: Network Algorithms and Applications

Chair: Tetsuya Shigeyasu, Hiroshima International University, Japan

1. Alarm Mechanism for Anticipated Detection of Network Unavailability in IP Networks Through Time Series Analysis
   Jefferson Cavalcante, Joaquim Celestino Jr., Ahmed Patel
2. An Eco Migration Algorithm of Virtual Machines in a Server Cluster
   Dilawaer Duolikun, Ryo Watanabe, Tomoya Enokido, Makoto Takizawa
3. Simple Models of Processes Migration with Virtual Machines in a Cluster of Servers
   Ryo Watanabe, Dilawaer Duolikun, Tomoya Enokido, Makoto Takizawa
4. A Flow-Level Performance Evaluation of Elastic Traffic Under Low Latency Queuing System
   Mohamed El Hedi Boussada Mounir Frikha and Jean Marie Garcia
5. Rotating Energy Efficient Clustering for Heterogeneous Devices (REECHD)
   Matteo Micheletti, Leonardo Mostarda, Andrea Piermarteri
6. A New Contents Centric Interest Forwarding according to User Preference on NDN
   Tetsuro Kuniyasu and Tetsuya Shigeyasu

AINA-S6: Opportunistic Networks

Chair: Isaac Woungang, Ryerson University, Canada

1. Evaluation of Routing Protocols for Opportunistic Networks in Scenarios with High Degree of People Renewal
   Leonardo Chancay-García, Jorge Herrera-Tapia, Pietro Manzoni, Enrique Hernández-Orallo, Carlos Tavares Calafate, Juan-Carlos Cano
2. Load Balancing and Collision Avoidance using Opportunistic Routing in Wireless Sensor Networks
   Aasma Khan, Nadeem Javaid, Arshad Sher, Raza Abid Abbasi, Zeeshan Ahmad, Waseem Ahmed
3. Time and Space in Android-based Opportunistic Networks
   Andre Ippisch, Tobias Küper, Kalman Graffi
4. Optimal Replication Based on Optimal Path Hops for Opportunistic Networks
   Andre Ippisch, Salem Sati, Kalman Graffi
5. Energy Consumption for Opportunistic Routing Algorithms in WSN
   Hajer Ben Fradj, Rajoua Anane, Ridha Bouallegue
6. Distributed User-based Collaborative Filtering on an Opportunistic Network
   Lucas Nunes Barbosa, Jonathan Gemmell, Miller Horvath, Tales Heimfarth

AINA-S7: Wireless Sensor Networks II

Chair: Ramesh C. Hansdah, Indian Institute of Science, Bangalore, India

1. Measuring Energy Consumption of a Wireless Sensor Node during Transmission: panStamp
   Sabrine Khriji, Rym Chéour, Martin Goetz, Dhouha El Houssaini, Ines Kammoun, Olfa Kanoun
2. An Efficient AUV-aided Data Collection in Underwater Sensor Networks
   Seyed Mohammad Ghoreyshi, Alireza Shahrabi, Tuleen Boutaleb
3. PICO-MP: De-Centralised Macro-Programming for Wireless Sensor and Actuator Networks
   Naranker Dulay, Matteo Micheletti, Leonardo Mostarda, Andrea Piermarteri
4. Geographical QoS-Oriented Protocol for Environmental Sensor Networks
   Allan S. Espindola, Manoel C. Penna, Marcelo E. Pellenz, Edgard Jamhour
5. An Efficient Routing Algorithm for Void Hole Avoidance in Underwater Wireless Sensor Networks
   Ghazanfar Latif, Nadeem Javaid, Arshad Sher, Muhammad Khan, Tayyab Hameed, Waseem Abbas
6. Energy Efficient Secure Communication in Wireless Sensor Networks
   Ravi Babu Gudivada and Ramesh C. Hansdah

AINA-S8: Multimedia Systems and Applications

Chair: Chung-Ming Huang, National Cheng Kung University, Taiwan

1. Is He Becoming an Excellent Customer for Us? A Customer Level Prediction Method for a Customer Relationship Management System
   Chiaki Doi, Masaji Katagiri, Takashi Araki, Hiroshi Shigeno
2. A QoE-Oriented Control Scheme for Adaptive HTTP Video Streaming in the Wireless Mobile Network
   Chung-Ming Huang, Rui-Xian Wei, Shouzhi Xu, Huan Zhou
3. A Novel Online QoE Prediction Model Based on Multiclass Incremental Support Vector Machine
   Yosr Ben Youssef, Mariem Afif, Riadh Ksantini, Sami Tabbane
4. Space Saving Text Input Method for Head Mounted Display with Virtual 12-key Keyboard
   Taihei Ogitani, Yoshitaka Arahori, Yusuke Shinyama, Katsuhiko Gondow
5. Rope Deployment Method for Ropeway-type Vermin Detection Systems
   Kodai Ogura, Kei Nihonyanagi, Ryo Katsuma
6. Towards Video Flow Classification at a Million Encrypted Flows Per Second
   Johan Garcia, Topi Korhonen, Ricky Andersson, Filip Västlund

FINA-S2: Distributed and Parallel Computing

Chair: Masaki Kohana, Ibaraki University, Japan

1. Sheaf Theory as a Mathematical Foundation for Distributed Applications Involving Heterogeneous Data Sets
   Seyed Mansourbeigi
2. Implementing Distributed Lamda-calculus Interpreter
   Alexandr Basov, Daniel de Carvalho, Manuel Mazzara
3. A Parallel Calculation Method on Web Browser for Contents Categorization
   Masaki Kohana, Hiroki Sakaji, Akio Kobayashi, Shusuke Okamoto
4. Open Source Platform Digital Personal Assistant
   Azat Khusnutdinov, Denis Usachev, Manuel Mazzara, Adil Khan, Ivan Panchenko

BOSON-S2: Modeling and Simulation of Big Data Processing

Chair: Flora Amato, University of Naples Federico II, Italy

1. Smart Priority Park Framework based on DDGP3
   Walter Balzano, Vinicio Barbieri, Giovanni Riccardi
2. Strategies for Social Networks Modeling
   Flora Amato, Leonard Barolli, Vincenzo Moscato, Antonio Picariello, Giancarlo Sperlí
3. Enabling IoT Stream Management in Multi-Cloud Environment by Orchestration
   Flora Amato, Francesco Moscato, Fatos Xhafa

HWISE-S2: Next Generation Networks

Chair: Keita Matsuo, Fukuoka Institute of Technology, Japan

1. TBEENISH: Threshold Balanced Energy Efficient Network Integrated Super Heterogeneous Protocol for WSNs
   Aqdas Naz, Nadeem Javaid, Muhammad Mudassar Iqbal, Mujahid Ali, Muhammad Imran, Zahoor Ali Khan
2. Proposal of Static Body Object Detection Methods with the DTN Routing for Life Safety Information Systems
   Noriki Uchida, Takahiro Shingai, Takato Shigetome, Tomoyuki Ishida, Yoshitaka Shibata
3. A Filtered RSSI Model based on Hardware Characteristic for Localization Algorithm in Wireless Sensor Networks
   Dhouha El Houssaini, Zina Mohamed, Sabrine Khriji, Kamel Besbes, Olfa Kanoun
4. A Novel Multi Verifier Device Attestation Scheme for Swarm of Devices
   Shivraj Vl, Meena Singh Dilip Thakur, Rajan Ma
5. A Recovery Method for Reducing Storage Usage Considering Number of Neighboring Nodes in VANETs
   Shogo Nakasaki, Yu Yoshino, Makoto Ikeda, Leonard Barolli

INTRICATE-SEC-S2: Security and Privacy

Chair: Anne V. D. M. Kayem, University of Cape Town, South Africa

1. Security-Aware Network Analysis for Network Controllability
   Shuo Zhang and Stephen D. Wolthusen
2. Sniffing and Chaffing Network Traffic in Stepping-Stone Intrusion Detection
   Jianhua Yang, Yongzhong Zhang, Robert King, Tim Tolbert
3. Improved Secure ZigBee Light Link Touchlink Commissioning Protocol Design
   Ruiqing Liu, Jun Yang, Baojiang Cui
4. Privacy Risks in Resource Constrained Smart Micro-Grids
   Pacome L. Ambassa, Anne V. D. M. Kayem, Stephen Wolthusen, Christoph Meinel

16:00-16:30 Coffee Break

16:30-18:30 Parallel Sessions

AINA-S9: Wireless and Software Defined Networks

Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan

1. Starvation-Avoidance Routing Assignment for Multihop Wireless Networks
   Shi-Yao Chen, Frank Yeong-Sung Lin, Yean-Fu Wen, Chiu-Han Hsiao

2. Efficiency of the TR Technique and the POPS Algorithm for Waveform Optimization in MISO-OFDM Systems
   Wafa Khrouf, Fatma Abdelkefi, Mohamed Siala, and Matthieu Crussière
3. Dynamic Sensitivity Control based on Two-Hop Farthest Terminal in Dense WLAN
   Takanobu Ohnuma, Hiroshi Shigeno, Yusuke Tanaka, Tomoya Yamaura
4. End-to-End Efficient Heuristic Algorithm for 5G Network Slicing
   Amal Kammoun, Nabil Tabbane, Gladys Diaz, Abdulhalim Dandoush, Nadjib Achir
5. A New SDN-based Next Generation Fronthaul Interface for a Partially Centralized C-RAN
   Tarek Rabia and Othmen Braham
6. SDMan: Towards a Software Defined Management Framework
   Maxwell E. Monteiro, Rodolfo S. Villaça, Kaio Simonassi, Renan Tavares, Cássio Reginato

AINA-S10: Distributed Systems and Algorithms

Chair: Manuel Mazzara, Innopolis University, Russia

1. Modeling and Simulation of Spark Streaming
   Jia-Chun Lin, Ming-Chang Lee, Ingrid Chieh Yu, Einar Broch Johnsen
2. On the Impossibility of Byzantine Collision-Fast Atomic Broadcast
   Rodrigo Q. Saramago, Eduardo A. P. Alchieri, Tuanir F. Rezende, Lasaro Camargos
3. Towards Dynamic Interaction-based Reputation Models
   Almaz Melnikov, JooYoung Lee, Manuel Mazzara, Victor Rivera, Luca Longo
4. Diversity on State Machine Replication
   Caio Yuri da Silva Costa and Eduardo Adilio Pelinson Alchieri
5. Triangle-Driven Community Detection in Large Graphs Using Propositional Satisfiability
   Said Jabbour, Nizar Mhadhbi, Badran Radaoui, Lakhdar Sais
6. Demand Side Energy Management using Hybrid Chicken Swarm and Bacterial Foraging Optimization Techniques
   Zaheer Abbas, Nadeem Javaid, Ahmad Jaffar Khan, Malik Hassan Abdul Rehman, Jawad Sahi, Abdul Saboor

AINA-S11: Pervasive Ubiquitous Computing

Chair: Joseph K. Ng, Hong Kong Baptist University, Hong Kong

1. Where can We Accomplish Our To-Do?: Estimating the Target Location by Analyzing the Task
   Reiji Suzumura, Shogo Matsuno, Minoru Ohyama
2. Proxy Oriented Approach for Evaluating Usability of a Resilient Life-Critical Interactive Systems
   Mouna Jarraya and Faouzi Moussa
3. Fast Setup and Robust WiFi Localization for the Exhibition Industry
   Victor C.W. Cheng, Hao Li, Joseph K. Ng, William K. Cheung
4. A Statistical Framework to Forecast Duration and Volume of Internet Usage based on Pervasive Monitoring of NetFlow Logs
   Soheil Sarmadi, Mingyang Li, Sriram Chellappan
5. Wayfinding Behavior Detection by Smartphone
   Ryosuke Narimoto, Shugo Kajita, Hirozumi Yamaguchi, Teruo Higashino
6. Distributed Mobility Management (DMM) using the Software Defined Network (SDN)-based Backward Fast Handover (SBF-DMM) Method
   Chung-Ming Huang, Duy-Tuan Dao, Meng-Shu Chiang

AINA-S12: Multimedia Services

Chair: Markus Aleksy, ABB AG, Germany

1. SANGN: A New Service Oriented Architecture for Provisioning of NGN Scalable Multimedia Services
   Juliana C. S. Andrade, Renato B. C. Ribeiro, Rodolfo S. Villaça, Magnos Martinello, Celso A. S. Santos
2. A Flexible Network and Compute-Aware Orchestrator to Enhance QoS in NFV-based Multimedia Services
   Rodrigo Moreira, Flávio Silva, Pedro Frosi, Rui Aguiar
3. Enhancing Money Saving Tips Recommendation System by Pairwise Preferences
   Takashi Araki, Chiaki Doi, Daizo Ikeda, Masaji Katagiri, Shuhei Kuwata, Tatsuya Kawasaki
4. Training System Using a Force Feedback Device for Acupuncture Treatment
   Meguru Yamashita, Zhiyi Gao, Akio Doi, Hajime Ogawa
5. Citation Count Prediction Based on Academic Network Features
   XinPing Zhu and ZhiJie Ban
6. A Context Aware Recommender System for Digital Storytelling
   F. Clarizia, F. Colace, M. Lombardi, F. Pascale

FINA-S3: Cloud and Grid Computing

Chair: Tomoya Enokido, Rissho University, Japan

1. Appliance Scheduling in Smart Homes with Harmony Search Algorithm for Different Operation Time Intervals
   Syed Muhammad Mohsin, Nadeem Javaid, Sajjad Ahmad Madani, Syed Kashif Abbas, Syed Muhammad Abrar Akber, Zahoor Ali Khan
2. Virtualized SDN-Based End-To-End Reference Architecture for Fog Networking
   Pooyan Habibi, P., Soroush Baharlooei, Sepehr Kazemian, Siavash Khorsandi
3. The Evolution of the Hadoop Distributed File System
   Stathis Maneas and Bianca Schroeder
4. Reliability Modeling and Analysis for Deadline-constrained Grid Service
   Dharmendra Prasad Mahato and Ravi Shankar Singh

COLLABES-S1: Collaborative Systems and Applications

Chair: Fatos Xhafa, Technical University of Catalonia, Spain

1. An Energy-efficient Model of Fog and Device Nodes in IoT
   Ryuji Oma, Shigenari Nakamura, Tomoya Enokido, Makoto Takizawa
2. Cloud-based Global Monitoring System for Smart Cities
   Yosra Ben Dhief, Yacine Djemaiel, Slim Rekhis, Noureddine Boudriga
3. Clustering Student Participation: Implications for Education
   Shadi Esnaashariors, Lesley Gardner, Paul Watters
4. Blended Learning Technologies in the Automotive Industry Specialists' Training
   Irina Makarova, Ksenia Shubenkova, Anton Pashkevich
5. Real time Automation of Agriculture Land, by Automatically Detecting Plant Leaf Diseases and Auto Medicine
   Channamallikarjuna Mattihalli, Edemialem Gedefaye, Fasil Endalamaw, Adugna Necho
6. A Semantic Model for Document Management in Business Processes
   Imen Chaouachi Allani and Belhassen Zouari

NetSMM-S1: Network Monitoring and Management

Chair: Stephane Maag, Telecom Sud-Paris, France

1. Concept of User Authentication Method for the Cloud Type Virtual Policy Based Network Management Scheme for the Specific Domain
   Kazuya Odagiri, Shogo Shimizu, Naohiro Ishii, Makoto Takizawa
2. A Noval Meta-Heuristic Hybrid Enhanced Differential Harmony Wind Driven (EDHWDO) Optimization Technique For Demand Side Management in Smart Grid
   Talha Naeem Qureshi, Nadeem Javaid, Aqdas Naz, Waseem Ahmad, Muhammad Imran, Zahoor Ali Khan
3. Hikester - The Event Management Application
   Rinat Khatipov, Manuel Mazzara, Aydar Negimatzhanov, Victor Rivera, Anvar Zakirov, Ilgiz Zamaleev
4. SLAs in 5G: A Complete Framework Facilitating VNF- and NS- Tailored SLAs Management
   Evgenia Kapassa, Marios Touloupou, Dimosthenis Kyriazis
5. Security Analysis of Open Source Network Access Control in Virtual Networks
   Mohammed Suhel Inamdar and Ali Tekeoglu
6. MANETs Interoperability: Current Trends and Open Research
   Jose Alvarez, Stephane Maag, Fatiha Zaïdi

E3WSN-S1: IoT, Multi-agents and Wireless Networks

Chair: Leonardo Mostarda, Camerino University, Italy

1. Formal Semantics of an IoT-specific Language
   Diletta Romana Cacciagrano and Rosario Culmone
2. Multi-agent Based Simulations of Block-free Distributed Ledgers
   Michele Bottone, Franco Raimondi, Giuseppe Primiero
3. Energy Saving and Collision-free Motion Planning for Oblivious Robots
   Alfredo Navarra and Diletta Romano Cacciagrano
4. An Intelligent Car Park Management System : Hierarchical Placement Algorithm Based on Nearest Location
   Burak Kizilkaya, Mehmet Caglar, Fadi Al-Turjman, Enver Ever
5. Performance of IEEE802.15.4e TSCH Protocol for multi-hop Wireless Sensor Networks
   Ines Hosni

19:00-21:00 Welcome Reception Party

- Location: Pedagogical University of Cracow
- Address: Podchorążych 2, 30-084 Kraków, Poland

Thursday, May 17, 2018

08:00 Registration

09:00-10:30 Single Session: Keynote Talk II

IEEE AINA 2018 Keynote Talk II (PLENARY ROOM)

Dr. Francesco Palmieri, University of Salerno, Italy

Title: Introducing Energy-Awareness in Communication Infrastructures: A Novel Approach to Sustainable Networking

10:30-11:00 Coffee Break

11:00-13:00 Parallel Sessions

AINA-S13: Wireless and Mobile Computing

Chair: Yoshitaka Shibata, Iwate Prefectural University, Japan

1. Indoor Trajectory Reconstruction Using Mobile Devices
   Risca Mukti Susanti, Kiki Maulana Adhinugraha, Sultan Alamri, Leonard Barolli, David Taniar
2. Cross-Layer Balanced Relay Node Selection Algorithm for Opportunistic Routing in Underwater Ad-Hoc Networks
   Ning Li, Jose Fernan Martinez Ortega, Vicente Hernandez Diaz, Lourdes Lopez Santidrian
3. Load-Balanced Cooperative Transmission in MEO-LEO Satellite Network
   Shukun Li and Feilong Tang
4. Reducing Error of Positioning Based on Unstable RSSI of Short Range Communication
   Wakana Nakai, Yu Kawahama, Ryo Katsuma
5. MBCAP: Mission Based Collision Avoidance Protocol for UAVs
   Francisco Fabra, Carlos T. Calafate, Juan Carlos Cano, Pietro Manzoni
6. A New V2X Communication System to Realize Long Distance and Large Data Transmittion by N-Wavelength Wireless Cognitive Network
   Yoshitaka Shibata, Noriki Uchida, Kenta Ito

AINA-S14: Ontology and Data Management

Chair: Flora Amato, University of Naples Federico II, Italy

1. Probabilistic Ontology Reasoning in Ambient Assistance: Predicting Human Actions
   Gabriel Machado Lunardi, Guilherme Medeiros Machado, Fadi Al Machot, Vinícius Maran, Alencar Machado, Heinrich C. Mayr, Vladimir A. Shekhovtsov, José Palazzo M. de Oliveira
2. An Ontology-Based Approach to Dynamic Contextual Role for Pervasive Access Control
   A. S. M. Kayes, Wenny Rahayu and Tharam Dillon

3. An Ontology-based Approach for Mining Radicalization Indicators from Online Messages
Abir Masmoudi, Mahmoud Barhamgi, Noura Faci, Zohra Saoud, Khalid Belhajjame, Djamal Benslimane, David Camacho
4. Survival Classification with Two-tied Labeling of Censored Data
Aurélien Bach, Jianfei Zhang, Shengrui Wang
5. Fog Computing with Distributed Database
Tsukasa Kudo
6. Data Security in Cognitive Information Systems
Anna Kubarek and Lidia Ogiela

AINA-S15: Intelligent Algorithms and Bio-inspired Computing

Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan

1. Efficient Power Scheduling in Smart Homes using Meta Heuristic Hybrid Grey Wolf Differential Evolution Optimization Technique
Muqaddas Naz, Nadeem Javaid, Urva Latif, Talha Naeem Qureshi, Aqdas Naz, Zahoor Ali Khan
2. Pseudorehearsal in Actor-critic Agents with Neural Network Function Approximation
Vladimir Marochko, Leonard Johard, Manuel Mazzara, Luca Longo
3. Using Link Analysis Algorithms to Study the Role of Neurons in the Worm Connectome
Piotr Szczurek and Mark Horeni
4. Selection of Actor Nodes in Wireless Sensor and Actor Networks: A Fuzzy-based Approach Considering Number of Obstacles as New Parameter
Donald Elmazi, Miralda Cuka, Kevin Bylykbashi, Evjola Spaho, Makoto Ikeda, Leonard Barolli
5. Cost Optimization in Home Energy Management System using Genetic Algorithm, Bat Algorithm and Hybrid Bat Genetic Algorithm
Urva Latif, Nadeem Javaid, Syed Shahab Zarin, Muqaddas Naz, Asma Jamal, Abdul Mateen
6. Design and Implementation of a Hybrid Intelligent System Based on Particle Swarm Optimization, Hill Climbing and Distributed Genetic Algorithm for Node Placement Problem in WMNs: A Comparison Study
Shinji Sakamoto, Admir Barolli, Leonard Barolli, Makoto Takizawa

AINA-S16: IoT Platforms and Applications

Chair: Fatos Xhafa, Technical University of Catalonia, Spain

1. Improving Security on IoT Applications based on the FIWARE Platform
Caio Thomás Oliveira, Rodrigo Moreira, Flávio de Oliveira Silva, Rodrigo Sanches Miani, Pedro Frosi Rosa
2. Dynamic Collaboration of Centralized & Edge Processing for Coordinated Data Management in an IoT Paradigm
Roger Young, Sheila Fallon, Paul Jacob
3. Research on PUF-based Security Enhancement of Narrow-Band Internet of Things
Yuesong Lin, Fuqiang Jiang, Zhu Wang, Zhuping Wang
4. A Fuzzy-based System for Selection of IoT Devices in Opportunistic Networks Considering IoT Device Storage, Waiting Time and Node Centrality Parameters
Miralda Cuka, Donald Elmazi, Kevin Bylykbashi, Evjola Spaho, Makoto Ikeda, Leonard Barolli
5. Edge and Cluster Computing as Enabling Infrastructure for Internet of Medical Things
Pierluigi Ritrovato, Fatos Xhafa, Andrea Giordano
6. Mobile Privacy Protection Enhanced with Multi-access Edge Computing
Ping Zhang, Mimoza Durresi, Arjan Durresi

WITIN-S1: Image Recognition and Object Detection

Chair: Hui-Huang Hsu, Tamkang University, Taiwan

1. Real-Time Face Detection Using a Moving Camera
   Deng-Yuan Huang, Chao-Ho Chen, Tsong-Yi Chen, Jian-He Wu, Chien-Chuan Ko
2. Stereo-based 3D Space Handwriting Recognition
   Ying-Nong Chen, Chi-Hung Chuan, Kuo-Chin Fan
3. Drone-Based Vacant Parking Space Detection
   Cheng-Fang Peng, Jun-Wei Hsieh, Shao-Wei Leu, and Chi-Hung Chuang
4. Toward an Improvement of UAV-aerial Image using Non-linear Image Enhancement
   Lung-Jen Wang and Wen-Shyong Hsieh
5. Real-Time Static and Dynamic Gesture Recognition Using Mixed Space Features for 3D Virtual World's Interactions
   S. P. Kasthuri Arachchi, Stanislav Vladimirovich Klimenko, Noorkholis Luthfil Hakim, Timothy K. Shih, Hui-Huang Hsu

CCPI-S1: Smart Platforms I

Chair: Beniamino Di Martino, University of Campania Luigi Vanvitelli, Italy

1. How Cloud Computing, IoT and Multicore Systems Affect Software Engineering Principles
   Lutz Schubert, Athanasios Tsitsipas, Keith Jeffery
2. Building a Smart City Service Platform in Messina with the #SmartME Project
   Dario Bruneo, Sebastiano Chillari, Salvatore Distefano, Maurizio Giacobbe, Antonino Longo Minnolo, Francesco Longo, Giovanni Merlino, Davide Mulfari, Alfonso Panarello, Giuseppe Patan, Antonio Puliafito, Carlo Puliafito, Marco Scarpa, Nachiket Tapas, Giancarlo Visalli
3. Edge Computing-enabled Body Area Networks
   Gianluca Aloi, Giancarlo Fortino, Raffaele Gravina, Pasquale Pace, Giuseppe Caliciuri
4. A Cloud-Based Approach to Assess the Quality of Local Transportation Services in Apulia Region
   Antonella Longo, Mario A. Bochicchio, Marco Zappatore
5. MELODIC: Utility Based Cross Cloud Deployment Optimisation
   Geir Horn and Paweł Skrzypek

TeNAS-S1: Wireless and Mobile Technology

Chair: Teh-Sheng Huang, ChungHwa Telecom, Taiwan

1. M-SPOT: A Hybrid Multiobjective Evolutionary Algorithm for Node Placement in Wireless Sensor Networks
   Alfredo J. Perez
2. Mobility Management Architecture in Different RATs Based Network Slicing
   Ali Saeed Dayem Alfoudi, Mohammed Dighriri, Abayomi Otebolaku, Rubem Pereira, Gyu Myoung Lee
3. Resource Allocation Scheme in 5G Network Slices
   Mohammed Dighriri, Ali Saeed Dayem Alfoudi, Gyu Myoung Lee, Thar Baker, Rubem Pereira
4. A Robust CSI-HARQ MIMO Visible Light Communication Scheme for Wireless Industrial Networking
   Shih-Hao Chang and Ted Huang
5. An SDN-based Architecture for Smart Handover to Improve QoE in IEEE 802.11 WLANs
   Omar Aldhaibani, Faycal Bouhafs, Michael Makay, and Alessandro Raschellà
6. A Simple Algorithm to Select Energy-efficient Servers for Storage and Computation Processes
   Atsuhiro Sawada, Dilawaer Duolikun, Ryo Watanabe, Tomoya Enokido, Makoto Takizawa

IOEMLA-S1: Machine Learning

Chair: Omid Ameri Sianaki, Victoria University, Australia

1. Impact of Web 2.0 Technology on Students with Learning Difficulties: A State-of-the-Art and Future Challenges
   Mohammad Alhabashneh, Bilal Abu-Salih, Shirlee-ann Knight
2. Extending a Conventional Chatbot Knowledge base to External Knowledge Source and Introducing User Based Sessions for Diabetes Education
   Shafquat Hussain and Athula Ginige
3. Internet of Everything and Machine Learning Applications: Issues and Challenges
   Omid Ameri Sianaki, Ashkan Yousefi , Azadeh Rajabian Tabesh, Mehregan Mahdavi
4. A Deep Learning Framework to Enhance Software Defined Networks Security
   Ahmed Dawoud, Seyed Shahristani, Chun Raun

13:00-14:00 Lunch Break

14:00-16:00 Parallel Sessions

AINA-S17: Privacy, Cryptography and Attacks

Chair: Marek R. Ogiela, AGH University of Science and Technology, Poland

1. Privacy Preservation in Social Networks Sequential Publishing
   Safia Bourahla and Yacine Challal
2. Cognitive Cryptography in Advanced Data Security
   Marek R. Ogiela, Lidia Ogiela
3. Active Attack against Oblivious RAM
   Yuto Nakano, Seira Hidano, Shinsaku Kiyomoto, Kouichi Sakurai
4. A Machine Learning Approach for Detecting Spoofing Attacks in Wireless Sensor Networks
   Eliel Marlon de Lima Pinto, Rosana Lachowski, Marcelo E. Pellenz, Manoel C. Penna, Richard D. Souza
5. Securing Cloud Storage Brokerage Systems through Threat Models
   Kennedy A. Torkura, Muhammad I.H. Sukmana, Michael Meinig, Anne V. D. M. Kayem, Feng Cheng, Christoph Meinel, Hendrik Graupner
6. DeMONS: A DDoS Mitigation NFV Solution
   Vinícius F. Garcia, Guilherme de F. Gaiardo, Leonardo da C. Marcuzzo, Raul C. Nunes, Carlos Raniery P. dos Santos

AINA-S18: Medical and E-Learning Applications

Chair: Fang-Yie Leu, Tunghai University, Taiwan

1. Anomaly Detection and Diagnosis Scheme for Mobile Health Applications
   Lamia Ben Amor, Imene Lahyani, Mohamed Jmaiel, Khalil Drira
2. A Budget Feasible Mechanism for Hiring Doctors in E-Healthcare
   Vikash Kumar Singh, Sajal Mukhopadhyay, Fatos Xhafa, Aniruddh Sharma
3. Privacy Preserved Spectral Analysis using IoT mHealth Biomedical Data for Stress Estimation
   Xuping Huang, Hiroaki Kikuchi, Chun-I Fan
4. Analyzing Attributes of Successful Learners by using Machine Learning in an Undergraduate Computer Course
   Chia-Yin Ko and Fang-Yie Leu
5. Design of Program Analysis Based Approach for Narrowing Down Misconfigurations in Beginner Network Construction Exercises
   Yuichiro Tateiwa and Naohisa Takahashi

AINA-S19: Intelligent Systems and Agent-based Computing

Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan

1. Demand Side Management Using Hybrid Genetic Algorithm and Pigeon Inspired Optimization Techniques
   Malik Hassan Abdul Rehman, Nadeem Javaid, Muhammad Nadeem Iqbal, Zaheer Abbas, Muhammad Awais, Ahmed Jaffar Khan, Umar Qasim
2. Model Checking in Multiplayer Games Development
   Ruslan Rezin, Ilya Afanasyev, Manuel Mazzara, Victor Rivera
3. Stackelberg Game-theoretic Approach in Joint Pricing and Assortment Optimizing for Small-Scale Online Retailers: Seller-Buyer Supply Chain Case
   Zahra Saberi, Omar Hussain, Morteza Saberi, Elizabeth Chang
4. Efficient Demand Side Management using Hybridization of Elephant Herding Optimization and Firefly Optimization
   Iqra Fatima, Sikandar Asif, Sundas Shafiq, Itrat Fatima, Muhammad Hassan Rahim, Nadeem Javaid
5. Smart Homes Coalition based on Game Theory
   Adia Khalid, Nadeem Javaid, Abdul Mateen, Muhammad Hassan Rahim, Manzoor Ilahi
6. Performance Evaluation of WMN-PSODGA System for Node Placement Problem in WMNs Considering Four Different Crossover Methods
   Admir Barolli, Shinji Sakamoto, Leonard Barolli, Makoto Takizawa

AINA-S20: Smart Home Management and Applications

Chair: Fatos Xhafa, Technical University of Catalonia, Spain

1. Value CoCreation (VCC) Language Design in the Frame of a Smart Airport Network Case Study
   Christophe Feltus, Erik H. A. Proper, Andreas Metzger, Juan Francisco García López, Castiñeira González Rodrigo
2. Risk Prediction in Smart Home Care
   Zeineb Fki, Boudour Ammar, Mounir Ben Ayed
3. Time and Device based Priority Induced Demand Side Load Management in Smart Home with Consumer Budget Limit
   Asif Khan, Nadeem Javaid, Muhammad Nadeem Iqbal, Naveed Anwar, Inzimam-ul-Haq, Faraz Ahmad
4. Meta Heuristic and Nature Inspired Hybrid Approach for Home Energy Management using Flower Pollination Algorithm and Bacterial foraging Optimization Technique
   Muhammad Awais, Nadeem Javaid, Abdul Mateen, Nasir Khan, Ali Mohiuddin, Malik Hassan Abdul Rehman
5. Towards Secure Smart Home IoT: Manufacturer and User Network Access Control Framework
   Mohammed Al-Shaboti, Ian Welch, Aaron Chen, Muhammed Adeel

WITIN-S2: Multimedia Data Analysis

Chair: Hui-Huang Hsu, Tamkang University, Taiwan

1. Application of Deep Learning for Infant Vomiting and Crying Detection
   Chuan-Yu Chang and Fu-Ren Chen
2. Apply Scikit-Learn in Python to Analyze Driver Behavior Based on OBD Data
   Chi-Pan Hwang, Mu-Song Chen, Chih-Min Shih, Hsing-Yu Chen, Wen Kai Liu
3. An Improved Steganographic Scheme Implemented on the Compression Domain of Image Using BTC and Histogram Modification
   Shih-Chieh Shie, Ji-Han Jiang, Yi-Jen Su, Wei-Yan Chang
4. Secure OTT Service Scheme Based on Blockchain Technology
   Hsing-Chung Chen, Shyi-Shiun Kuo, Han-Mi Chen

CCPI-S2: Smart Platforms II

Chair: Beniamino Di Martino, University of Campania Luigi Vanvitelli, Italy

1. Coordination Pattern-Based Approach for Auto-Scaling in Multi-Clouds
   Eva Kühn and Stefan Craß
2. BYOS: Bring Your Own Security in Clouds and Service Oriented Infrastructures
   Dimosthenis Kyriazis
3. An Application of Semantic Techniques for Forensic Analysis
   Flora Amato, Giovanni Cozzolino, Antonino Mazzeo, Francesco Moscato
4. Declarative Modeling for Deploying a Container Platform
   Giuseppe Attardi, Alex Barchiesi, Alberto Colla, Roberto Di Lallo, Fulvio Galeazzi
5. A Game Theory-Based Effective Network Management in SDN Networks
   Marwa Abderrahim, Asma Ben Letaifa, Amel Haji, Sami Tabbane

PAEWN-S1: Network Performance Analysis and Enhancement

Chair: Keita Matsuo, Fukuoka Institute of Technology, Japan

1. Multihop Transmission Strategy to Improve Energy Efficiency in WSNs
   Maha Abderrahim, Hela Hakim, Hatem Boujemaa, Raed al Hamad
2. Residual Energy and Density Control Aware Cluster Head Election in Wireless Sensor Network
   Meddah Meriem, Haddad Rim, Ezzedine Tahar
3. How Modeling QoE Requirements using Game Theory
   Tasnim Abar, Asma Ben Letaifa, Sadok El Asmi
4. Content Based Algorithm Aiming to Improve the WEB_QoE over SDN Networks
   Nawres Abdelwahed, Asma Ben Letaifa, Sadok El Asmi
5. An Integrated Message Suppression Controller with Epidemic and MaxProp Protocols: Performance Evaluation for VDTNs
   Yu Yoshino, Shogo Nakasaki, Makoto Ikeda, Leonard Barolli
6. Ameliorating the Web QoE using SPA
   Nawres Abdelwahed, Asma Ben Letaifa, Sadok El Asmi

IOEMLA-S2: Internet of Everything

Chair: Omid Ameri Sianaki, Victoria University, Australia

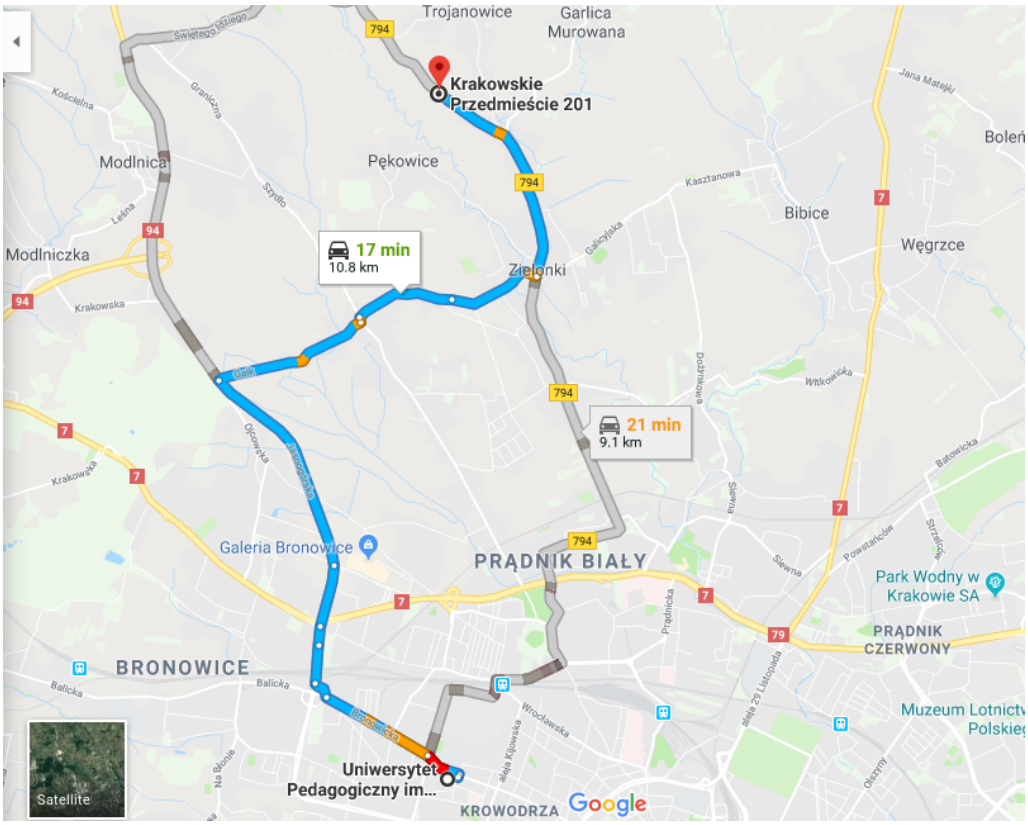
1. Analysis of Scientific Production of IoE Big Data Research
   Jaswinder Kaur, Pornpit Wongthongtham, Bilal Abu-Salih, Sogand Fathy
2. A Decision Support System for Selecting Sustainable Materials in Construction Projects
   Muhammad Rashid Minhas, Vidyasagar Potdar, Omid Ameri Sianaki
3. Data Provenance in the Internet of Things
   Mahmoud Elkhodr, Belal Alsinglawi, Mohammad Alshehri

16:00-16:30 Coffee Break

17:00-17:30 Move to Restaurant

18:00-20:00 Banquet Party

- Restaurant Name: Restauracja Pallatia
- Address: Krakowskie Przedmieście 201, 32-087 Zielonki–Trojanowice, Poland



Friday, May 18, 2018

08:00 Registration

09:00-11:00 Parallel Sessions

AINA-S21: Secure Systems and Algorithms

Chair: Hiroaki Kikuchi, Meiji University, Japan

1. Cyber Threat Intelligence from Honeypot Data using Elasticsearch
   Hamad AL-Mohannadi, Irfan Awan, Jassim Al Hamar, Andrea Cullen, Jules Pagan Disso, Lorna Armitage
2. Ransomware Detection Considering User's Document Editing
   Toshiki Honda, Kohei Mukaiyama, Takeharu Shirai, Tetsushi Ohki, Masakatsu Nishigaki
3. An Adaptive Analysis Framework for Correlating Cyber-security-related Data
   Xiaohui Jin, Baojiang Cui, Jun Yang, Zishuai Cheng
4. Using Externals IdPs on OpenStack: A Security Analysis of OpenID Connect, Facebook Connect, and OpenStack Authentication
   Glauber C. Batista, Maurício A. Pillon, Guilherme P. Koslovski, Charles C. Miers, Nelson Mimura Gonzalez, Marcos A. Simplicio Jr.
5. Challenges and Methodologies of Hardware Security
   Kin Fun Li and Narges Attarmoghaddam
6. Risk of Re-identification from Payment Card Histories in Multiple Domains
   Satoshi Ito, Reo Harada, Hiroaki Kikuchi

AINA-S22: Cloud Computing

Chair: Lidia Ogiela, AGH University of Science and Technology, Poland

1. Julunga: A New Large-Scale Distributed Read-Write File Storage System for Cloud Computing Environments
   Hrishikesh Dewan and R.C. Hansdah
2. Formal Verification of Temporal Constraints and Allocated Cloud Resources in Business Processes
   Rania Ben Halima, Imen Zouaghi, Slim Kallel, Walid Gaaloul, Mohamed Jmaie
3. Analysis and Representation of QoS Attributes in Cloud Service Selection
   Mona Eisa, Muhammad Younas and Kashinath Basu
4. Cognitive Systems for Service Management in Cloud Computing
   Urszula Ogiela, Makoto Takizawa, Lidia Ogiela
5. A New Formal Proxy-Based Approach for Secure Distributed Business Process on the Cloud
   Nouioua Maroua, Alti Adel, Zouari Belhassen

AINA-S23: Distributed Database and Data Mining

Chair: Makoto Takizawa, Hosei University, Japan

1. Clustering Method for Characterizing Areas of Spatial Networks Based on Degree Mixing Patterns
   Arief Maulana
2. Using Spatial Outliers Detection to Assess Balancing Mechanisms in Bike Sharing Systems
   Rayane El Sibai, Yousra Chabchoub, Christine Fricker

3. EasyChoose: A Continuous Feature Extraction and Review Highlighting Scheme on Hadoop YARN
Ming-Chang Lee, Jia-Chun Lin, Olaf Owe
4. NBF: An FCA-based Algorithm to Identify Negative Correlation Biclusters of DNA Microarray Data
Amina Houari, Wassim Ayadi, Sadok Ben Yahia
5. Correlated Differential Privacy Protection for Big Data
Denglong Lv and Shibing Zhu
6. Anomaly Clustering based on Correspondence Analysis
Humayra Islam and Tarem Ahmed

AINA-S24: Grid and P2P Computing

Chair: Ramesh C. Hansdah, Indian Institute of Science, Bangalore, India

1. A Novel Task Scheduling Scheme for Computational Grids - Greedy Approach
D B Srinivas, Sujay N. Hegde, Rajan M A, H K Krishnappa
2. Minicamp: Middleware for Incomplete Participation in Structured Peer-to-Peer Monitoring Protocols
Andreas Disterhöft and Kalman Graffi
3. Afuronto: A Six Hop Peer-to-Peer Network of Zillions of Nodes
Hrishikesh Dewan and Ramesh C. Hansdah
4. Peer-to-Peer Collaborative Video-on-Demand Streaming over Mobile Content Centric Networking
Djelloul Ighit, Lyes Tairi, Ryma Boussaha, Yacine Challal, Abdelmadjid Bouabdallah
5. Harmony Pigeon Inspired Optimization for Appliance Scheduling in Smart Grid
Nasir Khan, Nadeem Javaid, Muhammad Khan, Ahmed Subhani, Abdul Mateen, Arshad Iqbal
6. Home Energy Management in Smart Grid using Evolutionary Algorithms
Abdul Saboor, Nadeem Javaid, Zafar Iqbal, Zaheer Abbas, Ahmad Jaffar Khan, Saad Rashid, Muhammad Awais

BICom-S1: Intelligent Systems and Algorithms

Chair: Keita Matsuo, Fukuoka Institute of Technology, Japan

1. Implementation of an IoT-Based E-learning Testbed: Performance Evaluation Using Mean-Shift Clustering Approach Considering Four Types of Brain Waves
Keita Matsuo, Masafumi Yamada, Kevin Bylykbashi, Miralda Cuka, Yi Liu, Leonard Barolli
2. Appliances Scheduling using Hybrid Scheme of Genetic Algorithm and Elephant Herd Optimization for Residential Demand Response
Rasool Bukhsh, Nadeem Javaid, Zafar Iqbal, Usman Ahmed, Zeeshan Ahmad, Muhammad Nadeem Iqbal
3. EDHBPSO: Enhanced Differential Harmony Binary Particle Swarm Optimization for Demand Side Management in Smart Grid
Aqdas Naz, Nadeem Javaid, Talha Naeem Qureshi, Muhammad Imran, Mujahid Ali, Zahoor Ali Khan
4. An Approach Towards Efficient Scheduling of Home Energy Management System using Backtracking Search Optimization and Tabu Search
Sundas Shafiq, Sikander Asif, Iqra Fatima, Kubra Yousaf, Wajiha Safat, Nadeem Javaid

CCPI-S3: Cloud Federations, Big Data, Edge and IoT

Chair: Beniamino Di Martino, University of Campania Luigi Vanvitelli, Italy

1. Parallel Primitives for Vendor-Agnostic
Cesare Bandirali, Stefano Lodi, Gianluca Moro, Andrea Pagliarani, Claudio Sartori, Salvatore D'Angelo, Beniamino Di Martino, Antonio Esposito
2. ROCK Algorithm Parallelization with TOREADOR Primitives
Beniamino Di Martino, Salvatore D'Angelo, Antonio Esposito, Riccardo Cappuzzo

3. Parallelization and Deployment of Big Data Algorithms: The TOREADOR Approach
Beniamino Di Martino, Salvatore D'Angelo, Antonio Esposito, Ivàn Martinez, Jorge Montero, Tomas Pariente
4. Using Federated Cloud Platform to Implement Academia Services for Research and Administration
Giuseppe Attardi, Beniamino Di Martino, Antonio Esposito, Michele Mastroianni
5. From the Cloud to Edge and IoT: A Smart Orchestration Architecture for Enabling Osmotic Computing
Lorenzo Carnevale, Antonio Celesti, Antonino Galletta, Schahram Dustdar, Massimo Villari

EASyCoSe-S1: Green Distributed Organizations and Monitoring Solutions

Chair: Francesco Palmieri, University of Salerno, Italy

1. Unicast Routing Protocols to Reduce Electric Energy Consumption in Wireless Ad-hoc Networks
Emi Ogawa, Shigenari Nakamura, Tomoya Enokido, Makoto Takizawa
2. Reducing Power Consumption in HetNet Network Using Power Adjustment and Coordinated Multipoint Technique
Narjes Lassoued, Noureddine Boujnah, Ridha Bouallegue
3. Energy-Efficient Transmission Strategy with Cluster Organization Phase to Improve Energy saving in WSNs
Maha Abderrahim, Hela Hakim, Hatem Boujemaa
4. A Hybrid Bacterial Foraging Tabu Search Heuristic Optimization for Demand Side Management in Smart Grid
Ahmad Jaffar Khan, Nadeem Javaid, Zafar Iqbal, Naveed Anwar, Abdul Saboor, Inzimam-ul-Haq, Umar Qasim

MAW-S1: Collaborative and Secure Systems

Chair: Kin Fun Li, University of Victoria, Canada

1. Experimental Study of Characterizing Frequent Itemsets using Representation Learning
Saki Kawanobe and Tomonobu Ozaki
2. Detecting Network Intrusions Using A Confidence-Based Reward System
Kole Nunley and Wei Lu
3. An Estimation Method of User Roles Based on Online Technical Communication Activities
Hayato Tsukiji and Kosuke Takano
4. Network Event Classification for Security of IT Infrastructure
Deepali Arora, Panajotis Agathoklis, Alex Loffler
5. Education Analytics: Challenges and Approaches
Linlin Zhang and Kin Fun Li
6. Improvement of Image Processing for a Collaborative Security Flight Control System with Multiple Drones
Noriyasu Yamamoto and Noriki Uchida

11:00-11:30 Coffee Break

11:30-13:30 Parallel Sessions

AINA-S25: Information Scurity and Blockchain

Chair: Marek R. Ogiela, AGH University of Science and Technology, Poland

1. ISPANN: A Policy-based ISP Auditor for Network Neutrality Violation Detection
Vinícius Garcez Schaurich, Márcio Barbosa de Carvalho, Lisandro Zambenedetti Granville
2. Security of Distributed Ledger Solutions Based on Blockchain Technologies
Marek R. Ogiela and Michal Majcher

3. BlockStore: A Secure Decentralized Storage Framework On Blockchain
   Sushmita Ruj, Mohammad Shahriar Rahman, Anirban Basu, Shinsaku Kiyomoto
4. Online Signature Verification using the Information Set based Models
   Urvashi Choudhary, Sanjay Kumar Dhurandher, Vinesh Kumar, Isaac Woungang, Joel J. P. C. Rodrigues
5. Comparison of Selected Homomorphic Encryption Techniques
   Marek R. Ogiela and Marcin Oczko
6. Authenticated Network Coding for Software-Defined Named Data Networking
   Ryma Boussaha, Yacine Challal, Abdelmadjid Bouabdallah

AINA-S26: Cloud Infrastructures and Data Centers

Chair: Fatos Xhafa, Technical University of Catalonia, Spain

1. Exploring Textures in Traffic Matrices to Classify Data Center Communications
   Celio Trois, Luis C. Bona, Luiz S. Oliveira, Magnos Martinello, Douglas Harewood-Gill, Marcos D. Del Fabro, Reza Nejabati, Dimitra Simeonidou, Joao C. D. Lima, Benhur Stein
2. CloudFarm: Management of Farms and Crops Data on the Cloud
   Apostolos Rousalis, Stelios Sotiriadis, Euripides G.M. Petrakis
3. Feedback Based High-Quality Task Assignment in Collaborative Crowdsourcing
   Liang Qiao, Feilong Tang, Jiacheng Liu
4. Allocation of Virtual Infrastructures on Multiple IaaS Providers with Survivability and Reliability Requirements
   Anderson S. Raugust, Felipe R. de Souza, Maurício A. Pillon, Charles C. Miers, Guilherme P. Koslovski
5. Trust Assessment for Internet of Things in Multi-access Edge Computing
   Yefeng Ruan, Arjan Durresi, Suleyman Uslu
6. In-Network Self-Learning Algorithms for BEMS Through a Collaborative Fog Platform
   Zhishu Shen, Kenji Yokota, Jiong Jin, Atsushi Tagami, Teruo Higashino

BICom-S2: Bio-Computing and Machine Learning

Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan

1. Gene Expression for Simulation of Biological Tissue
   Sadyk Sayfullin, Manuel Mazzara, Ruslan Mustafin and Victor Rivera, Fedor Akhmetov
2. Implementing Elephant Herding Optimization Algorithm with different Operation Time Intervals for Appliance Scheduling in Smart Grid
   Syed Muhammad Mohsin, Nadeem Javaid, Sajjad Ahmad Madani, Syed Muhammad Abrar Akber, Sohaib Manzoor, Javed Ahmad
3. Bio-Inspired Optimization Techniques for Home Energy Management in Smart Grid
   Abdul Mateen, Nadeem Javaid, Muhammad Awais, Nasir Khan, Urva Latif, Ihtisham Ullah
4. Enhancing QoE based on Machine Learning and DASH in SDN networks
   Tasnim Abar, Asma Ben Letaifa, Sadok El Asmi

CCPI-S4: Cloud Management

Chair: Beniamino Di Martino, University of Campania Luigi Vanvitelli, Italy

1. Elastic Architecture based NFV and OpenStack to Deploy VA
   Amel Haji, Asma BenLetaifa, Sami Tabbane
2. The Impact of Data Residency on Cloud Computing
   Claude R. Baudoin
3. Cloud Services Categories Identification from Requirements Specifications
   Beniamino Di Martino, Jessica Pascarella, Stefania Nacchia, Salvatore Augusto Maisto, Pietro Iannucci, Fabio Cerri

4. How to Use MEC and ML to Improve Resources Allocation in SDN Networks?
   Marwa Abderrahim, Asma Ben Letaifa, Amel Haji, Sami Tabbane

EASyCoSe-S2: Security Issues in the Internet of Things and Smart Solutions

Chair: Mauro Migliardi, University of Padua, Italy

1. Covert Channels in IoT Deployments Through Data Hiding Techniques
   Mauro Migliardi, Alessio Merlo, Luca Caviglione
2. An Adaptive Typing Biometric System with Varying Users Model
   Carlo Ferrari, Daniele Marini, Michele Moro
3. Supporting Privacy in a Cloud-based Health Information System by Means of Fuzzy Conditional Identity-based Proxy Re-Encryption (FCI-PRE)
   Gianluca Fimiani
4. How to Protect Public Administration from Cybersecurity Threats: The COMPACT Project
   Luigi Coppolino, Salvatore D'Antonio, Giovanni Mazzeo, Luigi Romano, Luigi Sgaglione

AINA-2018 Session Schedule
May 16-18, 2018
Pedagogical University of Cracow, Poland

Wednesday (May 16, 2018)		ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5	ROOM 6	ROOM 7	ROOM 8
Slot	Time	Registration							
Session 1	09:00 – 10:30	Opening Ceremony and AINA-2018 Keynote I (Plenary Room)							
Coffee Break	10:30 – 11:00	Coffee Break							
Session 2	11:00 – 13:00	AINA S1	AINA S2	AINA S3	AINA S4	FINA S1	BOSON S1	HWISE S1	INTRICATE-SEC S1
Lunch	13:00 – 14:00	Lunch							
Session 3	14:00 – 16:00	AINA S5	AINA S6	AINA S7	AINA S8	FINA S2	BOSON S2	HWISE S2	INTRICATE-SEC S2
Coffee Break	16:00 – 16:30	Coffee Break							
Session 4	16:30 – 18:30	AINA S9	AINA S10	AINA S11	AINA S12	FINA S3	COLLABES S1	NeTSMM S1	E3WSM S1
Social Event	19:00 – 21:00	*Welcome Reception Party*							

Thursday (May 17, 2018)		ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5	ROOM 6	ROOM 7	ROOM 8
Slot	Time	Registration							
Session 1	09:00 – 10:30	AINA-2018 Keynote II (Plenary Room)							
Coffee Break	10:30 – 11:00	Coffee Break							
Session 2	11:00 – 13:00	AINA S13	AINA S14	AINA S15	AINA S16	WITIN S1	CCPI S1	TeNAS S1	IOEMLA S1
Lunch	13:00 – 14:00	Lunch							
Session 3	14:00 – 16:00	AINA S17	AINA S18	AINA S19	AINA S20	WITIN S2	CCPI S2	PAEWN S1	IOEMLA S2
Coffee Break	16:00 – 16:30	Coffee Break							
Social Event	17:00 – 17:30	Move to Restaurant							
	18:00 – 20:00	*Banquet Party*							

Friday (May 18, 2018)		ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5	ROOM 6	ROOM 7	ROOM 8
Slot	Time	Registration							
Session 1	09:00 – 11:00	AINA S21	AINA S22	AINA S23	AINA S24	BICom S1	CCPI S3	EASyCoSe S1	MAW S1
Coffee Break	11:00 – 11:30	Coffee Break							
Session 2	11:30 – 13:30	AINA S25	AINA S26			BICom S2	CCPI S4	EASyCoSe S2	
Lunch	13:30 – 14:30	Lunch							