

PROGRAM GUIDE

IEEE AINA 2016

The 30th IEEE International Conference on
Advanced Information Networking and Applications



March 23-25, 2016

Le Régent Congress Centre, Crans-Montana, Switzerland

Sponsored by:

IEEE Technical Committee on Distributed Processing (TCDP)

Supported by:

HES-SO University & Icare Research Institute



Contents

| | |
|---|----|
| IEEE AINA 2016 Organizing Committee | 4 |
| Message from IEEE AINA 2016 Steering Committee Co-Chairs | 5 |
| Message from IEEE AINA 2016 General Co-Chairs | 6 |
| Message from IEEE AINA 2016 Program Committee Co-Chairs | 7 |
| Message from IEEE AINA 2016 Workshops Co-Chairs | 8 |
| IEEE AINA 2016 Keynote Talk I | 10 |
| IEEE AINA 2016 Keynote Talk II | 11 |
| IEEE AINA 2016 Keynote Talk III | 12 |
| IEEE AINA 2016 Main Conference and Workshops Program | 13 |
| Wednesday, March 23, 2016 | 13 |
| 08:00 Registration | 13 |
| 09:00-10:00 Single Session: Opening and Keynote Talk I | 13 |
| 10:00-10:30 Coffee Break | 13 |
| 10:30-12:30 Parallel Sessions | 13 |
| AINA-S1: Network Protocols and Applications I | 13 |
| AINA-S2: Distributed Database and Data Mining | 14 |
| AINA-S3: Content-Centric Networking | 14 |
| FINA-S1: Scalable Networks and Systems | 14 |
| HWISE-S1: Mobile and Wireless Communication Systems | 15 |
| COLLABES-S1: Collaborative Systems and Social Networks | 15 |
| CCPI-S1: Cloud Interoperability and Federation | 15 |
| 12:30-14:00 Lunch Break | 16 |
| 14:00-16:00 Parallel Sessions | 16 |
| AINA-S4: Network Protocols and Applications II | 16 |
| AINA-S5: Ad Hoc and Mesh Networks | 16 |
| AINA-S6: Multimedia Systems and Applications | 16 |
| FINA-S2: Security and Privacy | 17 |
| HWISE-S2: VANETs and Wireless Network Protocols | 17 |
| COLLABES-S2: Cloud Computing, Network Services and Security | 17 |
| CCPI-S2: Cloud Semantics and Cloud Applications | 18 |
| 16:00-16:30 Coffee Break | 18 |
| 16:30-18:30 Parallel Sessions | 18 |
| AINA-S7: Network Protocols and Applications III | 18 |
| AINA-S8: Wireless Sensor Networks I | 19 |
| AINA-S9: Pervasive and Ubiquitous Computing I | 19 |
| FINA-S3: IoT and Cloud Computing | 19 |
| HWISE-S3: Wireless Sensor and Ad-hoc Networks | 20 |
| INTRICATE-SEC-S1: Key Management and Encryption | 20 |

| | |
|---|----|
| CCPI-S3: Cloud Technologies | 20 |
| 19:00-21:00 Welcome Reception Party | 20 |
| Thursday, March 24, 2016 | 21 |
| 08:00 Registration | 21 |
| 09:00-10:00 Single Session: Keynote Talk II | 21 |
| 10:00-10:30 Coffee Break | 21 |
| 10:30-12:30 Parallel Sessions | 21 |
| AINA-S10: Distributed and Parallel Systems I | 21 |
| AINA-S11: Wireless Sensor Networks II | 21 |
| AINA-S12: Vehicular Networks and Applications I | 22 |
| FINA-S4: Cognitive Radio and Communication Systems | 22 |
| WITIN-S1: Image Processing I | 22 |
| TeNAS-S1: Network Technology and Applications | 23 |
| STPA-S1: Security, Intrusion Detection and Access Control | 23 |
| 12:30-14:00 Lunch Break | 23 |
| 14:00-16:00 Parallel Sessions | 23 |
| AINA-S13: Distributed and Parallel Systems II | 23 |
| AINA-S14: Pervasive and Ubiquitous Computing II | 24 |
| AINA-S15: Data Centers and Cloud Computing I | 24 |
| FINA-S5: Distributed Algorithms and Applications | 24 |
| WITIN-S2: Image Processing II | 25 |
| TeNAS-S2: Mobile Networks | 25 |
| IWDENS-S1: Disaster Information Systems and Applications | 25 |
| 16:00-16:30 Coffee Break | 25 |
| 16:30-18:30 Parallel Sessions | 25 |
| AINA-S16: Security and Privacy I | 25 |
| AINA-S17: Vehicular Networks and Applications II | 26 |
| AINA-S18: Data Centers and Cloud Computing II | 26 |
| EASyCoSe-S1: Energy-Aware Systems and Protocols | 26 |
| WITIN-S3: Data Processing and Knowledge Management | 27 |
| EEEWSN-S1: Modelling and Performance Evaluation | 27 |
| IWDENS-S2: Disaster Information Networks and Services | 27 |
| 19:00-21:00 Banquet Party | 27 |
| Friday, March 25, 2016 | 28 |
| 08:00 Registration | 28 |
| 09:00-10:00 Single Session: Keynote Talk III | 28 |
| 10:00-10:30 Coffee Break | 28 |
| 10:30-12:30 Parallel Sessions | 28 |
| AINA-S19: Security and Privacy II | 28 |
| AINA-S20: Internet Computing and Web Applications | 28 |
| AINA-S21: Smart Home and Smart Cities | 29 |
| PITSaC-S1: Internet of Things | 29 |
| BOSON-S1: Big Data Processing | 29 |
| BICoM-S1: Intelligent Algorithms and Systems | 29 |
| DC2-S1: IoT, Cloud and Vehicular Networks | 30 |
| 12:30-14:00 Lunch Break | 30 |
| 14:00-16:00 Parallel Sessions | 30 |
| AINA-S22: Security and Privacy III | 30 |
| AINA-S23: Intelligent Computing | 31 |

| | |
|---|----|
| AINA-S24: Internet of Things | 31 |
| PITSaC-S2: Smart Cities and Mobility | 31 |
| BOSON-S2: Distributed Computing Methods and Applications | 32 |
| ITIS-S1: Innovative Systems | 32 |
| MAW-S1: Web and Internet Applications | 32 |
| 16:00-16:30 Coffee Break | 32 |
| 16:30-18:30 Parallel Sessions | 32 |
| AINA-S25: Security and Privacy IV | 33 |
| AINA-S26: Social Networking and Collaborative Systems | 33 |
| AINA-S27: Semantic Computing | 33 |
| AINA-S28: Grid, P2P and Scalable Computing | 34 |
| IOTCP-S1: IoT Privacy, Crowdsourcing and Technology Insight | 34 |
| NetMM-S1: Network Monitoring and Management | 34 |
| PAEWN-S1: Network Modelling and Performance Evaluation | 35 |

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Makoto Takizawa, Hosei University, Japan

Leonard Barolli, Fukuoka Institute of Technology, Japan

Message from IEEE AINA 2016 Steering Committee Co-Chairs

Welcome to the 30-th IEEE International Conference on Advanced Information Networking and Applications (IEEE AINA 2016). It is our great pleasure and honor to held AINA 2016 at Le Regent Congress Centre, Crans-Montana, Switzerland from March 23 to March 25, 2016. On behalf of the AINA Steering Committee and IEEE AINA 2016 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 TCDP of IEEE Computer Society.

In conjunction with IEEE AINA 2016 main conference, we have also 20 International Workshops. Every year after the conference, we usually publish special issues in International Journals. The authors who attend IEEE AINA 2016 and present their papers in the main conference and workshops can submit a revised version of the paper to one of the special issues.

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

We would like to thank IEEE AINA 2016 General Co-Chairs: Antonio Jara, HES-SO, Switzerland, Hui-Huang Hsu, Tamkang University, Taiwan and Markus Aleksy, ABB AG, Germany for their great efforts to make a very successful organization of IEEE AINA 2016.

We would like to express our special thanks to Dominique Genoud, HES-SO, Switzerland, Tomoya Enokido, Risho University, Japan and Kin Fun Li, University of Victoria, Canada as PC Co-Chairs of IEEE AINA 2016 for making excellent technical program.

We greatly appreciate Yann Bocchi, HES-SO, Switzerland, Elis Kulla, Okayama University of Science, Japan and Eric Pardede, La Trobe University, Australia as Workshops Co-Chairs of IEEE AINA 2016 for organizing 20 workshops in conjunction with IEEE AINA 2016.

We would like to thank also all track area chairs, program committee members, workshops organizers and workshops committee members for carefully reviewing the papers.

We have special thanks to Makoto Ikeda as Finance Chair of IEEE AINA 2016 and Mr. Tetsuya Oda and Mr. Shinji Sakamoto as Web administrators.

We would like to take opportunity to thank all members of the organization committee and program committee as well as all the 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 Computer Society TCDP, as Sponsor of IEEE AINA 2016.

Finally, we would like to thank HES-SO University and Icare Research Institute, Switzerland for their support. We appreciate the Local Arrangement Team of HES-SO University and Le Regent Congress Centre for their support and good local arrangement for the conference.

We do hope that you will have a great time in Crans-Montana, Switzerland.

IEEE AINA Steering Committee Co-Chairs

Makoto Takizawa, Hosei University, Japan

Leonard Barolli, Fukuoka Institute of Technology, Japan

Message from IEEE AINA 2016 General Co-Chairs

It is our great pleasure to welcome you all at the 30-th IEEE International Conference on Advanced Information Networking and Applications (IEEE AINA 2016), which will be held at Le Regent Congress Centre, Crans-Montana, Switzerland from March 23 to March 25, 2016.

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, Fog 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 has received high submission from all around the world, and maintained high quality accepted papers as it aspires to be one of the main international conferences on the Information Networking in the world. In conjunction with the IEEE AINA 2016 conference, there are 20 workshops, which also accepted high 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 2016 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, 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 Dominique Genoud, HES-SO, Switzerland, Tomoya Enokido, Ritssho University, Japan and Kin Fun Li, University of Victoria, Canada as PC Co-Chairs of IEEE AINA 2016. We would like to give our thanks also to Workshops Co-Chairs Yann Bocchi, HES-SO, Switzerland, Elis Kulla, Okayama University of Science, Japan and Eric Pardede, La Trobe University, Australia.

Our special thanks go to Makoto Ikeda as Finance Chair of IEEE AINA 2016 and Mr. Tetsuya Oda and Mr. Shinji Sakamoto as Web administrators.

Finally, we would like to thank the Local Arrangement Team of HES-SO University and Le Regent Congress Centre for their support and good local arrangement for the conference.

We do hope that you will have a great time in Crans-Montana, Switzerland.

IEEE AINA 2016 General Co-Chairs

Antonio Jara, HES-SO, Switzerland

Hui-Huang Hsu, Tamkang University, Taiwan

Markus Aleksy, ABB AG, Germany

Message from IEEE AINA 2016 Program Committee Co-Chairs

Welcome to the 30-th IEEE International Conference on Advanced Information Networking and Applications (IEEE AINA 2016), which will be held at Le Regent Congress Centre, Crans-Montana, Switzerland from March 23 to March 25, 2016.

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 556 paper submissions from all over the world. Each submission was peer-reviewed by program committee members or invited external reviewers. Finally, the program committee accepted 163 papers (about 29% acceptance ratio), which will be presented during the conference days. Unfortunately, many interesting and good papers could not be accepted in IEEE AINA 2016 due to the limited number of time slots allocated for presentations at the conference.

We are very proud and honored to have three distinguished keynote talks by Prof. Prof. Vincenzo Loia, University of Salerno, Italy, Dr. Martin Brynskov, Aarhus University, Denmark and Mr. Arijit Ukil, Tata Consulting Services, India, 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 chairs Yann Bocchi, HES-SO, Switzerland, Elis Kulla, Okayama University of Science, Japan and Eric Pardede, La Trobe University, Australia 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 Antonio Jara, HES-SO, Switzerland, Hui-Huang Hsu, Tamkang University, Taiwan and Markus Alekxy, ABB AG, Germany for their great support and invaluable suggestions. We give special thanks to Makoto Ikeda, Tetsuya Oda and Shinji Sakamoto 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 Crans-Montana, Switzerland

IEEE AINA 2016 Program Committee Co-Chairs

Dominique Genoud, HES-SO, Switzerland

Tomoya Enokido, Risho University, Japan

Kin Fun Li, University of Victoria, Canada

Message from IEEE AINA 2016 Workshops Co-Chairs

Welcome to the AINA 2016 workshops to be held in conjunction with the 30-th IEEE International Conference on Advanced Information Networking and Applications, at Le Regent Congress Centre, Crans-Montana, Switzerland from March 23 to March 25, 2016. 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 20 symposiums and workshops will be held with AINA 2016.

1. The 12-th International Symposium on Frontiers of Information Systems and Network Applications (FINA 2016)
2. The 12-th International Workshop on Heterogeneous Wireless Networks (HWISE 2016)
3. The 11-th International Workshop on the Performance Analysis and Enhancement of Wireless Networks (PAEWN 2016)
4. The 9-th International Workshop on Information Technology for Innovative Services (ITIS 2016)
5. The 9-th International Symposium on Mining and Web (MAW 2016)
6. The 9-th International Workshop on Bio and Intelligent Computing (BICom 2016)
7. The 9-th International Workshop on Telecommunication Networking, Applications and Systems (TeNAS 2016)
8. The 8-th International Workshop on Disaster and Emergency Information Network Systems (IW-DENS 2016)
9. The 4-th International Workshop on Collaborative Enterprise Systems (COLLABES 2016)
10. The 4-th International Workshop on Pervasive Internet of Things and Smart Cities (PITSaC 2016)
11. The 4-th International Workshop on Network Management and Monitoring (NetMM 2016)
12. The 4-th International Workshop on the Theories and Intricacies of Information Security problems (INTRICATE-SEC 2016)
13. The 3-rd International Workshop on Device Centric Cloud (DC2 2016)
14. The 3-rd International Workshop on Engineering Energy Efficient WSNs (EEEWSN 2016)
15. The 3-rd International Workshop on Energy-Aware Systems, Communications and Security (EASy-CoSe 2016)
16. The International Workshop on Cloud Computing Project and Initiatives (CCPI 2016)
17. The 1-st International Workshop on Internet of Things, Crowdsourcing and Privacy (IOTCP 2016)
18. The 1-st International Workshop on Security, Trust, Privacy and Analytics (STPA 2016)
19. The 1-st International Workshop on Innovative Technologies in Informatics and Networking (WITIN 2016)
20. The 1-st International Workshop on Big Data Processing in Online Social Network (BOSON 2016)

We would like to thank the community for their great response to IEEE AINA 2016 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 2016 workshops and symposiums. We would like to thank IEEE AINA 2016 General Co-Chairs: Antonio Jara, HES-SO, Switzerland, Hui-Huang Hsu, Tamkang University, Taiwan and Markus Aleksy, ABB AG, Germany for their advices to make possible organization of IEEE AINA 2016 workshops and symposiums. We are thankful to IEEE AINA 2016 Program Co-Chairs: Dominique Genoud, HES-SO, Switzerland, Tomoya Enokido, Rissho University, Japan and Kin Fun Li, University of Victoria, Canada for their support and help to prepare the technical program of AINA 2016 workshops and symposiums. We would like to express special thanks to Makoto Ikeda, Tetsuya Oda and Shinji Sakamoto 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 2016 International Conference.

IEEE AINA 2016 Workshops Co-Chairs

Yann Bocchi, HES-SO, Switzerland
Elis Kulla, Okayama University of Science, Japan
Eric Pardede, La Trobe University, Australia

IEEE AINA 2016 Keynote Talk I



Prof. Vincenzo Loia, University of Salerno, Italy

A Computational Perspective to Situational Awareness

Abstract: Situation Awareness (SA) concerns all things happening around us and is typically associated to what is critical with respect to our interest. For instance, an airplane pilot does not need to be aware of everything around him but only the information required for driving correctly and safely. Endsley provided a more formal definition that considers Situation Awareness as a three-phase process: perception of the elements of an environment in a given time interval, comprehension of the aforementioned elements and projection of their states into the next future. More in details, from a computational viewpoint, SA aims at formalizing and deducing situations (occurring in the real world) by processing, fusing and abstracting context information.

We proposed the Perception-Oriented Approach to identify situations. Such approach is based on two phases: low-level perception and high-level perception. The low-level perception is realized by means of Semantic Technologies and allows to generate more abstract information from raw sensor data by also considering knowledge about the environment. Sensor Middleware like Global Sensor Network (GSN), Linked Sensor Middleware (LSM), OpenIoT and Semantic Web Ontologies like W3C SSNO have been employed to support gathering and processing of sensor data. At this level, we proposed approaches to assess the reliability, and other quality dimensions, of sensor data (observations). In particular, we introduced an approach to exploit a fuzzy-based consensus model to handle cases in which redundant sensors provide discordant observations.

Moreover, high-level perception is realized by means of techniques like, for instance, Fuzzy Formal Concept Analysis, Fuzzy Cognitive Maps, etc. and allows to organize and classify abstract and actionable information to support the work of DSSs. At this level, we proposed a nature-inspired approaches, based on Artificial Bees, for mining association rules used to foster the resilience of the situation identification algorithms and the adoption of Semantic Web technologies, like SAW Ontology, to model situations and Semantic Inference Engine (OWL-based and Rule-based) to reason on them.

IEEE AINA 2016 Keynote Talk II



Dr. Martin Brynskov, Aarhus University, Denmark

Open and Agile Smart Cities

Abstract: Cities across the globe are looking for ways to spur open innovation. The reason is simple. Innovation is needed to overcome the digital transition of cities and communities, and it has to be open for two reasons: First, it must be open to include a variety of stakeholders, because services are increasingly connected to other systems and co-created with stakeholders outside the old verticals, and second, it must help to establish a competitive but attractive enough market for developers, thereby driving down cost, increasing quality and avoiding vendor lock-in and monopolization. Seen from a developer's perspective, one city is not a market. A number of countries or a continent is a sizable market. But global de facto standards for portability and interoperability are the only way to create a true global market for smart city services. In such a market, developers can start investing and specializing with an outlook of sustainable business models in public-private innovation partnerships.

IEEE AINA 2016 Keynote Talk III

Mr. Arijit Ukil, Innovation Labs, Tata Consultancy Services, India

IoT Healthcare Analytics: The Importance of Anomaly Detection

Abstract: Healthcare data is quite rich and often contains human survival related information. Analyzing healthcare data is of prime importance particularly considering the immense potential of saving human life and improving quality of life. Furthermore, IoT revolution has redefined modern health care. IoT offers its greatest promise to deliver excellent progress in healthcare domain. In this talk, proactive healthcare analytics specifically for cardiac disease prevention will be discussed. Anomaly detection plays a prominent role in healthcare analytics. In fact, the anomalous events are to be accurately detected with low false negative alarms often under high noise (low SNR) condition. An exemplary case of smartphone based cardiac anomaly detection will be presented.



IEEE AINA 2016 Main Conference and Workshops Program

Wednesday, March 23, 2016

08:00 Registration

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

IEEE AINA 2016 Keynote Talk I (PLENARY ROOM)

Prof. Vincenzo Loia: A Computational Perspective to Situational Awareness

10:00-10:30 Coffee Break

10:30-12:30 Parallel Sessions

AINA-S1: Network Protocols and Applications I

Chair: Makoto Takizawa, Hosei University, Japan

1. Influential Abortion Probability in a Flexible Read-Write Abortion Protocol
Shigenari Nakamura, Dilawaer Duolikun, Tomoya Enokido, Makoto Takizawa
2. Characterizing Similarity Structure of Spatial Networks Based on Degree Mixing Patterns
Arief Maulana, Kazumi Saito, Tetsuo Ikeda, Hiroaki Yuze, Takayuki Watanabe, Seiya Okubo, Nobuaki Muto
3. Disaster Information Gathering System Based on Web Caching and OpenFlow in Unstable Networks
Saki Tabata, Kohei Ueda, Ryotaro Fukui, Keiko Shimazu, Hiroshi Shigeno
4. NEXT-FIT: Available Bandwidth Measurement over 4G/LTE Networks – A Curve-Fitting Approach
Anup Kumar Paul, Atsuo Tachibana, Teruyuki Hasegawa
5. Monitoring Communication Quality Degradation in LTE Network Using Statistics of State Transition
Masaki Suzuki, Quentin Plessis, Takeshi Kitahara, Shigehiro Ano

6. Channel Capacity and SA-BER Performances Evaluation of an OFDM-Based Two-Way Relaying AF-PNC-PLC Systems

Sana Ezzine, Fatma Abdelkefi, Jean Pierre Cances, Vahid Meghdadi, Ammar Bouallégué

AINA-S2: Distributed Database and Data Mining

Chair: Dominique Genoud, HES-SO, Switzerland

1. CICPV: A New Academic Expert Search Model
Zhijie Ban, Le Liu
2. Sentiment Analysis and Classification for Software as a Service Reviews
Asma Musabah Alkalbani, Ahmed Mohamed Ghamry, Farookh Khadeer Hussain, Omar Khadeer Hussain
3. The Impact of Course Enrollment Sequences on Student Success
Ahmad Slim, Gregory L. Heileman, Wisam Al-Doroubi, Chaouki T. Abdallah
4. Mining and Visualizing Social Data to Inform Marketing Decisions
Jérôme Treboux, Fabian Cretton, Florian Evéquo, Anne Le Calvé, Dominique Genoud
5. Applying Data Mining to Explore Students' Self-Regulation in Learning Contexts
Chia-Yin Ko, Fang-Yie Leu
6. A New Model for Testing CRUD Operations in a NoSQL Database
María Teresa González-Aparicio, Muhammad Younas, Javier Tuya, Rubén Casado

AINA-S3: Content-Centric Networking

Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan

1. SDCCN: A Novel Software Defined Content-Centric Networking Approach
Sergio Charpinel, Celso Alberto Saibel Santos, Alex Borges Vieira, Rodolfo Villaca, Magnos Martinello
2. Experimental Results of a Raspberry Pi and OLSR Based Wireless Content Centric Network Testbed Considering OpenWRT OS
Admir Barolli, Tetsuya Oda, Leonard Barolli, Makoto Takizawa
3. A Capital Market Metaphor for Content Delivery Network Resources
Elias Vathias, Dimitris Nikolopoulos, Stathes Hadjiefthymiades
4. New Hierarchical Parent-Child Caching Strategy (H-CS) for CCN-Based Video Streaming
Olfa Ben Rhaïem, Lamia Chaari Fourati, Wessam Ajib
5. Designing an Analysis Procedure for Context Aware Applications in Ubiquitous Environments
Nesrine Khabou, Ismael Bouassida Rodriguez, Mohamed Jmaiel
6. RTT-Based Caching Policies to Improve User-Centric Performance in CCN
Kenji Yokota, Kohei Sugiyama, Jun Kurihara, Atsushi Tagami

FINA-S1: Scalable Networks and Systems

Chair: Tomoya Enokido, Rissho University, Japan

1. OverUDP: Tunneling Transport Layer Protocols in UDP for P2P Application of IPv4
Maziar Janbeglou, Nevil Brownlee
2. Distributed Computation and Maintenance of a Spanning Tree in Dynamic Networks by Mobile Agents
Mouna Ktari, Mohamed Amine Haddar, Mohamed Mosbah, Ahmed Hadj Kacem
3. Latency and Routing Efficiency Based Metric for Performance Comparison of DHT Overlay Networks
Nitin Varyani, S. Nikhil, Virendra S. Shekhawat
4. Enhanced Single Chain-Based Scheme in Cylindrical Underwater Wireless Sensor Networks
Muhammad Zain-Ul-Abidin, Muhammad Awais Khan, Nadeem Javaid, Malik Khizar, Zahoor Ali Khan, Umar Qasim

5. Relay Assisted Adaptive MIMO Communication Using STBC, VBLAST, MLSTBC and HYBRID-STBC-VBLAST for MAC

M. M. Kamruzzaman, Meng Wang, Wenqi He, Xiang Peng

HWISE-S1: Mobile and Wireless Communication Systems

Chair: Kazunori Uchida, Fukuoka Institute of Technology, Japan

1. SOCP Approximation Based Resource Allocation in Shared Spectrum Access Communications
Mirza Golam Kibria, Kentaro Ishizu, Fumihide Kojima, Hiroyuki Yano
2. An Efficient of Secure Mobile Phone Applications for Multiple Bill Payments
Pensri Pukkasenung, Suphat Sukkasem
3. Modification of Dijkstra Proximity Matrix for Diffraction and Reflection Rays
Kazunori Uchida, Leonard Barolli
4. A QoS-Aware Admission Control System for WLAN Using Fuzzy Logic
Takaaki Inaba, Shinji Sakamoto, Tetsuya Oda, Makoto Ikeda, Leonard Barolli
5. Voice over LTE Standards: Solutions and QoS Control Parameters in High Mobile Environments
Aida Zaier, Emna Hajlaoui, Ridha Bouallegue
6. Interference Analysis of Asynchronous OFDM/FBMC Based Cognitive Radio Transceivers
Sonia Ben Aissa, Moez Hizem, Ridha Bouallegue

COLLABES-S1: Collaborative Systems and Social Networks

Chair: Fatos Xhafa, Technical University of Catalonia, Spain

1. Socio-cultural Adaptation Approach to Enhance Intercultural Collaboration and Learning
Fadoua Ouamani, Narjès Bellamine Ben Saoud, Henda Hajjami Ben Ghezala
2. Towards the Effective Software Development of an eLearning Platform Featuring Learning Analytics and Gamification
David Gañan Jimenez, Santi Caballé, Robert Clarisó, Jordi Conesa
3. Scenario Based Dynamic Content Management System for e-Learning Environment
Keonsoo Lee, Seungmin Rho, Eenjun Hwang
4. Collect, Scope, and Verify Big Data – A Framework for Institution Accreditation
Mohammed Hussain, Mohamed Basel Al-Mourad, Sujith Samuel Mathew
5. A Generalized Framework for Multi-party Data Exchange for IoT Systems
Jan Sliwa
6. Investigation of Effects of Spoofing Attacks in P2P Online Social Networks
Francisco de Asís López-Fuentes, Salvador Balleza-Gallegos

CCPI-S1: Cloud Interoperability and Federation

Chair: Salvatore Venticinque, Second University of Naples, Italy

1. Characterizing Cloud Federation in IoT
Antonio Celesti, Maria Fazio, Maurizio Giacobbe, Antonio Puliafito, Massimo Villari
2. An Architecture for Service Deployed in the Cloud Environment
Amel Haji, Asma Ben Letaifa, Sami Tabbane
3. CoSSMic Smart Grid Migration in Federated Clouds
Alba Amato, Rocco Aversa, Massimo Ficco, Salvatore Venticinque
4. Towards Data Interoperability: Turning Domain Specific Knowledge to Agnostic Across the Data Lifecycle
Athanasios Kiourtis, Argyro Mavrogiorgou, Dimosthenis Kyriazis, Ilias Maglogiannis, Marinos Themistocleous
5. Design of an Agent Based Monitoring Framework for Federated Clouds
Rocco Aversa, Luca Tasquiere

12:30-14:00 Lunch Break**14:00-16:00 Parallel Sessions****AINA-S4: Network Protocols and Applications II****Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan**

1. Cluster-Head and Border-Node Based Cluster Routing Protocol for LR-WPAN
Ying Huang, Hongli Ge, Jangsu Lee, Yuehua Dai, Dong Xu, Jin Zhang, Qiang Gao, Shaoying Zhao
2. Economic Viability of QoS in Software Defined Networks (SDNs)
Murat Karakus, Arjan Durresi
3. Network Monitoring Using MMT: An Application Based on the User-Agent Field in HTTP Headers
Vinh Hoa La, Raul Fuentes, Ana R. Cavalli
4. A New Sensing Strategy for 5G Mobile Networks: Towards Spectral and Energy Efficiency Trade off
Afef Bohli, Ridha Bouallegue
5. Realization of Time Synchronization Protocol Based on Frequency Skew Bid and Dynamic Topology Using Embedded Linux System
Zhenqiang Huang, Enqing Dong, Yuan Yuan, Wei Liu
6. Greedy Versus Limited Access Point Backhaul Resource Aggregation in Wireless Local Area Networks
Kawther Hassine, Mounir Frikha, Tijani Chahed

AINA-S5: Ad Hoc and Mesh Networks**Chair: Elis Kulla, Okayama University of Science, Japan**

1. A GA-Based Simulation System for WMNs: Performance Analysis of WMN-GA System for Different WMN Architectures and Uniform Distribution Considering DCF and EDCA
Ilir Shinko, Tetsuya Oda, Evjola Spaho, Admir Barolli, Vladi Kolici, Leonard Barolli
2. Evaluating Cross-Layer Cooperation of Congestion and Flow Control in IEEE 802.11s Networks
Michael Rethfeldt, Peter Danielis, Benjamin Beichler, Björn Konieczek, Felix Uster, Dirk Timmermann
3. MobiSink: Cooperative Routing Protocol for Underwater Sensor Networks with Sink Mobility
Pir Masoom Shah, Ikram Ullah, Tanveer Khan, Muhammad Sheraz Hussain, Zahoor Ali Khan, Umar Qasim, Nadeem Javaid
4. Energy Concerns in Wireless Sensor and Actor Networks: A Simulation Case
Elis Kulla, Evjola Spaho, Makoto Ikeda, Leonard Barolli
5. Implementation of a New Replacement Method in WMN-PSO Simulation System and Its Performance Evaluation
Shinji Sakamoto, Tetsuya Oda, Makoto Ikeda, Leonard Barolli, Fatos Xhafa
6. Trusted Secure Adhoc On-Demand Multipath Distance Vector Routing in MANET
Abrar Omar Alkhamisi, Seyed M. Buhari

AINA-S6: Multimedia Systems and Applications**Chair: Yuka Kato, Tokyo Woman's Christian University, Japan**

1. SDN Based Architecture to Improve Video Streaming in Home Networks
Rabee Mustapha Abuteir, Anne Fladenmuller, Olivier Fourmaux
2. New Educational Equipments for Networking Study by Physical Visualizations and Physical Direct Manipulations
Kazuaki Yoshihara, Kenzi Watanabe, Nobukazu Iguchi

3. A Method to Describe Student Learning Status for Personalized Computer Programming e-Learning Environment
Yu Yan, Kohei Hara, Hiroto Nakano, Takenobu Kazuma, Aiguo He
4. On the Evaluation of Quality of Situation (QoS) in Situation-Aware Ubiquitous Learning Environment
Raoudha Souabni, Ines Bayoudh Saadi, Nesrine Ben Salah, Kinshuk, Henda Ben Ghezala
5. Energy Minimization by Selecting Appropriate Modulation and Coding Scheme for MB-OFDM UWB Systems
Houda Chihi, Reza Mahin Zaeem, Ridha Bouallegue
6. An Estimation Model on Stress and Relaxed States for QOL Visualization and Its Evaluation
Sayaka Akiyama, Yuka Kato

FINA-S2: Security and Privacy

Chair: Tomoya Enokido, Rissho University, Japan

1. A Combining Classifiers Approach for Detecting Email Spams
Shrawan Kumar Trivedi, Shubhamoy Dey
2. State Recovering Attack Against Quavium
Shiyong Zhang, Gongliang Chen, Jianhua Li
3. K-Word Proximity Search on Encrypted Data
Mark Gall, Gerd Brost
4. Security and Privacy for Real Time Video Streaming using Hierarchical Inner Product Encryption based Publish-Subscribe Architecture
M. A. Rajan, Ashley Varghese, N. Narendra, Meena Singh, V. L. Shivraj, Girish Chandra, P. Balamuralidhar
5. Integrate Hacking Technique into Information Assurance Education
Jianhua Yang, Yien Wang, Thomas Reddington

HWISE-S2: VANETs and Wireless Network Protocols

Chair: Makoto Ikeda, Fukuoka Institute of Technology, Japan

1. A Framework for Disseminating Trusted Safety Message in V2V Communication
Hanaa S. Basheer, Carole Bassil, Bilal Chebaro
2. An Energy Efficient Hybrid Clustering Routing Protocol for Underwater WSNs
Mudassir Ejaz, Nadeem Javaid, Hammad Maqsood, Usman Shakeel, Zahoora Ali Khan, Umar Qasim
3. A Variable Speed Limit (VSL) Based Model for Advanced Traffic Management through VANETs
Ajay Vikram Singh, Jas Singh Bhasin
4. Efficient "MultiKG" Routing Protocol Based on Multi-Hop Transmission
Elkamel Rabiaa, Baccar Noura, Cherif Adnane, Bouallague Ridha
5. DASITS: Driver Assistance System in Intelligent Transport System
Jetendra Joshi, Anshumali Singh, Lakshya Gourav Moitra, Manash Jyoti Deka

COLLABES-S2: Cloud Computing, Network Services and Security

Chair: Fatos Xhafa, Technical University of Catalonia, Spain

1. Real-Time User Experience Evaluation for Cloud-Based Mobile Video
Nouha Samet, Asma Ben Letaïfa, Mohamed Hamdi, Sami Tabbane
2. Collaborative Cloud Computing Based on P2P Networks
Francisco de Asís López-Fuentes, Gerardo García Rodríguez
3. An Empirical Study on Optimal Correlation between Market Share and Concerns on Companies Measured Through Search Engine Suggests
Takakazu Imada, Yusuke Inoue, Lei Chen, Syunya Doi, Takehito Utsuro, Yasuhide Kawada

4. Keep It Simple, Fast and Scalable: A Multi-model NoSQL DBMS as an (eb) XML-over-SOAP Service
Antonio Messina, Pietro Storniolo, Alfonso Urso
5. Protection of Secrets by File Access Control with Common Key Cipher and Message Digests of Program Files
Minoru Ichikawa, Ryuya Uda
6. Effective CAPTCHA with Amodal Completion and Aftereffects by Complementary Colors and Difference of Luminance
Ryuya Uda, Tomoka Azakami

CCPI-S2: Cloud Semantics and Cloud Applications

Chair: Beniamino Di Martino, Second University of Naples, Italy

1. From Business Process Models to Cloud Deployment: A Semantic Approach
Beniamino di Martino, Antonio Esposito, Giuseppina Cretella
2. Information Modelling and Semantic Linking for a Software Workbench for Interactive, Time Critical and Self-Adaptive Cloud Applications
Paul Martin, Arie Taal, Francisco Quevedo, David Rogers, Kieran Evans, Andrew Jones, Vlado Stankovski, Salman Taherizadeh, Jernej Trnkoczy, George Suciu, Zhiming Zhao
3. A Semantic System for Diagnoses Suggestion and Clinical Record Management
Flora Amato, Giovanni Cozzolino, Antonino Mazzeo, Sara Romano
4. A Comparison of Private Cloud Systems
Cristian Chilipirea, Ghita Laurentiu, Mirona Popescu, Sorin Radoveanu, Vladimir Cernov, Ciprian Dobre
5. Unattended Deployment of Enabling Platforms for Cloud-Based Applications
Silviu Panica, Dana Petcu

16:00-16:30 Coffee Break

16:30-18:30 Parallel Sessions

AINA-S7: Network Protocols and Applications III

Chair: Isaac Woungang, Ryerson University, Canada

1. Impact of SDN on Mobility Management
Kuljaree Tantayakul, Riadh Dhaou, Beatrice Paillassa
2. SLEEPWELL: Energy Efficient Network Design for the Developing World Using Green Switches
Kshitiz Verma, Shmuel Zaks, Alberto Garcia-Martinez
3. VISION – Interactive and Selective Visualization for Management of NFV-Enabled Networks
Muriel Figueredo Franco, Ricardo Luis dos Santos, Alberto Schaeffer-Filho, Lisandro Zambenedetti Granville
4. A Scalability Metric for Control Planes in Software Defined Networks (SDNs)
Murat Karakus, Arjan Durresi
5. Explore and Analyze the Performance Factors on Wi-Fi Sensing Starvation Problems
Yean-Fu Wen, Shih-Yao Chen, Chiu-Han Hsiao, Frank Yeong-Sung Lin
6. EDR: An Encounter and Distance Based Routing Protocol for Opportunistic Networks
Sanjay Kumar Dhurandher, Satya Borah, Isaac Woungang, Deepak Kumar Sharma, Kunal Arora, Divyansh Agarwal

AINA-S8: Wireless Sensor Networks I**Chair: Leonardo Mostarda, University of Camerino, Italy**

1. Dynamic Sensor Management: Extending Sensor Web for Near Real-Time Mobile Sensor Integration in Dynamic Scenarios
Luiz Fernando F. G. de Assis, Lucas P. Behnck, Dionísio Doering, Edison P. de Freitas, Carlos E. Pereira, Flávio E. A. Horita, Jó Ueyama, João Porto de Albuquerque
2. A Transmit Power Efficient Non-Cooperative Game Design for Wireless Sensor Networks Based on the Utility and Cost Function
Anwar Khan, Hassan Mahmood, Zahoor Ali Khan, Umar Qasim, Nadeem Javaid
3. An Opportunistic Void Avoidance Routing Protocol for Underwater Sensor Networks
Sayed Mohammad Ghoreyshi, Alireza Shahrabi, Tuleen Boutaleb
4. An Energy Efficient and Balanced Energy Consumption Cluster Based Routing Protocol for Underwater Wireless Sensor Networks
Abdul Majid, Irfan Azam, Abdul Waheed, Muhammad Zain-Ul-Abidin, Taimur Hafeez, Zahoor Ali Khan, Umar Qasim, Nadeem Javaid
5. Three-Dimensional Sensor Localization Using Modified 3N Algorithm
Dogan Yildiz, Serap Karagol, Okan Ozgonenel, Satish Tadiparthi, Marwan Bikdash
6. A Comparison of HEED Based Clustering Algorithms - Introducing ER-HEED
Zaib Ullah, Leonardo Mostarda, Roberto Gagliardi, Diletta Cacciagrano, Flavio Corradini

AINA-S9: Pervasive and Ubiquitous Computing I**Chair: Junichi Honda, Electronic Navigation Research Institute, Japan**

1. Positional Estimation of Obstacles and Aircraft by Using ISDB-T Signal Delay
Junichi Honda, Takuya Otsuyama
2. SEEC: Sparsity-Aware Energy Efficient Clustering Protocol for Underwater Wireless Sensor Networks
Irfan Azam, Abdul Majid, Ijaz Ahmad, Usman Shakeel, Hamad Maqsood, Zahoor Ali Khan, Umar Qasim, Nadeem Javaid
3. Feasibility of Analyzing Wi-Fi Activity to Estimate Transit Passenger Population
Thongtat Oransirikul, Ryo Nishide, Ian Piumarta, Hideyuki Takada
4. Research on Never Die Network for Disaster Prevention Based on OpenFlow and Cognitive Wireless Technology
Goshi Sato, Noriki Uchida, Norio Shiratori, Yoshitaka Shibata
5. Comparing Strategies to Construct Local Disaster Recovery Networks
Matthias Herlich, Shigeki Yamada
6. necoMAC: Network Coding Aware MAC Protocol for Multirate Wireless Networks
Nyan Lin, Rithea Ngeth, Krittanai Sriviriyakul, Yuto Lim, Yasuo Tan

FINA-S3: IoT and Cloud Computing**Chair: Nik Bessis, Edge Hill University, UK**

1. Neighbor Discovery Schedule for 6LoWPAN Smart Grid Applications
Ines Hosni, Noureddine Hamdi
2. Maintaining Coverage of Multiple Interest Points for Wireless Sensor Networks on Water Surface
Ryo Katsuma, Hirotaka Ueno
3. Regional Indexing Approach for Mobile Objects
Sultan Alamri
4. Migration Method for Seamless Service in Cloud Computing: Survey and Research Challenges
A-Young Son, Eui-Nam Huh

5. Edge Data Processing

Ichiro Satoh

6. Automatic Migration and Deployment of Cloud Services for Healthcare Application Development in FIWARE

*Stelios Sotiriadis, Lenos Vakanas, Euripides Petrakis, Paolo Zampognaro, Nik Bessis***HWISE-S3: Wireless Sensor and Ad-hoc Networks****Chair: Makoto Ikeda, Fukuoka Institute of Technology, Japan**

1. Dual Sink Efficient Balanced Energy Technique for Underwater Acoustic Sensor Networks

Muhammad Awais Khan, Nadeem Javaid, Abdul Majid, Muhammad Imran, Mohammed Alnuem

2. Greedy Zone Routing: Robust and Scalable Routing in Wireless Ad-hoc Networks

Kasun Samarasinghe, Ricardo Wehbe, Pierre Leone

3. Performance Analysis of a Wireless Sensor Network for Seism Reporting in an Overlay Cognitive Radio System

Hassel Aurora Alcalá Garrido, Mario E. Rivero-Angeles, Izlian Yolanda Orea Flores

4. Increased Throughput DB-EBH Protocol in Underwater Wireless Sensor Networks

Syed Zarar, Nadeem Javaid, Syed Muhammad Zaki, Mudassir Ejaz, Zahoor Ali Khan, Umar Qasim, Sheraz Hussain

5. Improving Reliability of Cluster Nodes in MANETs: A Fuzzy-Based Approach

*Mirjeta Alinci, Takaaki Inaba, Donald Elmazi, Evjola Spaho, Vladi Kolici, Leonard Barolli***INTRICATE-SEC-S1: Key Management and Encryption****Chair: Anne V. D. M. Kayem, University of Cape Town Rondebosch, Republic of South Africa**

1. Key Management for Secure Demand Data Communication in Constrained Micro-grids

Anne V. D. M. Kayem, Heinrich Strauss, Stephen D. Wolthusen, Christoph Meinel

2. Conceptual Model for Security in Next Generation Network

Masoud Hayeri Khyavi, Mina Rahimi

3. Graphical Passwords - A Discussion

Anne V. D. M. Kayem

4. Privacy Violations in Constrained Micro-grids: Adversarial Cases

*Pacome L. Ambassa, Anne V. D. M. Kayem, Stephen D. Wolthusen, Christoph Meinel***CCPI-S3: Cloud Technologies****Chair: Beniamino Di Martino, Second University of Naples, Italy**

1. Transactional Processing for Polyglot Persistence

Ricardo Jiménez-Peris, Marta Patiño-Martínez, Iván Brondino, Valerio Vianello

2. Cloud for Europe: The Experience of a Tenderer

Antonella Longo, Marco Zappatore, Mario A. Bochicchio, Barbara Livieri, Nicola Guarino, Daniele Napoleone

3. Cloudifier: An Ecosystem for the Migration of Distributed Applications to the Cloud

Umberto Villano, Stefano Cagnoni, Maria Carla Calzarossa, Antonella di Stefano, Beniamino di Martino

4. Flexible Federation of Cloud Providers: The EUBrazil Cloud Connect Approach

*Francisco Brasileiro, José Luis Vivas, Giovanni Farias da Silva, Daniele Lezzi, Carlos Diaz, Rosa M. Badia, Miguel Caballer, Ignacio Blanquer***19:00-21:00 Welcome Reception Party**

Thursday, March 24, 2016**08:00 Registration****09:00-10:00 Single Session: Keynote Talk II****IEEE AINA 2016 Keynote Talk II (PLENARY ROOM)**

Dr. Martin Brynskov: Open and Agile Smart Cities

10:00-10:30 Coffee Break**10:30-12:30 Parallel Sessions****AINA-S10: Distributed and Parallel Systems I**

Chair: Tomoya Enokido, Rissho University, Japan

1. An Energy-Efficient Load Balancing Algorithm for Virtual Machine Environments to Perform Communication Type Application Processes
Tomoya Enokido, Makoto Takizawa
2. Energy-Aware Clusters of Servers for Storage and Computation Applications
Atsuhiko Sawada, Hiroki Kataoka, Dilawaer Duolikun, Tomoya Enokido, Makoto Takizawa
3. Accelerating Packet Processing in a Xen Environment With OpenDataPlane
Tarek Rabia, Othmen Baraham, Guy Pujolle
4. Straggler Detection in Parallel Computing Systems through Dynamic Threshold Calculation
Xue Ouyang, Peter Garrahan, David McKee, Paul Townend, Jie Xu
5. eHSim: An Efficient Hybrid Similarity Search with MapReduce
Trong Nhan Phan, Josef Küng, Tran Khanh Dang
6. Data-Driven Workflows for Microservices: Genericity in Jolie
Larisa Safina, Manuel Mazzara, Fabrizio Montesi, Victor Rivera

AINA-S11: Wireless Sensor Networks II

Chair: Tales Heimfarth, Federal University of Lavras (UFLA), Brazil

1. Void Avoidance Scheme for Real-Time Data Dissemination in Irregular Wireless Sensor Networks
Sangdae Kim, Cheonyong Kim, Hyunchong Cho, Yongbin Yim, Sang-Ha Kim
2. A Precision Operation Optimization for Detection-Based Sensor Networks
Frank Yeong-Sung Lin, Chiu-Han Hsiao, Yean-Fu Wen
3. Sink Mobility Support Scheme for Continuous Object Tracking in Wireless Sensor Networks
Cheonyong Kim, Hyunchong Cho, Sangdae Kim, Taehun Yang, Sang-Ha Kim
4. A Preamble Ahead Anycast Protocol for WSNs
Tales Heimfarth, João Carlos Giacomini, João Paulo de Araujo, Edison Pignaton de Freitas
5. Development of Analytical Model for Data Trustworthiness in Sensor Networks
Sami J Habib, Paulvanna N. Marimuthu
6. Energy Efficient and Reliable Data Gathering in Underwater WSNs
Tayyaba Liaqat, Nadeem Javaid, Ashfaq Ahmad, Zahoor Ali Khan, Umar Qasim, Muhammad Imran

AINA-S12: Vehicular Networks and Applications I**Chair: Makoto Ikeda, Fukuoka Institute of Technology, Japan**

1. An Enhanced Message Suppression Controller for Vehicular-Delay Tolerant Networks
Makoto Ikeda, Seiichiro Ishikawa, Leonard Barolli
2. An Architecture for Traffic Sign Management in Smart Cities
Everton R. Lira, Enrique Fynn, Paulo R. S. L. Coelho, Luis F. Faina, Lasaro Camargos, Rodolfo S. Villaca, Rafael Pasquini
3. Handover Decision in Heterogeneous Networks
Sassi Maaloul, Mériem Ajfj, Sami Tabbane
4. Experimental Evaluation on Quality of VoIP over AeroMACS
Kazuyuki Morioka, Junichi Naganawa, Junichi Honda, Naoki Kanada, Shunichi Futatsumori, Akiko Kohmura, Takeshi Tomita, Naruto Yonemoto, Yasuto Sumiya
5. Channel-Aware ECDSA Signature Verification of Basic Safety Messages with K-Means Clustering in VANETs
Elyes Ben Hamida, Muhammad Awais Javed
6. Spectrum Sensing in Cognitive Radio Networks and Capacity Analysis for Vehicular Network
Wencheng Chen, Xiangming Wen, Wei Li

FINA-S4: Cognitive Radio and Communication Systems**Chair: Noriki Uchida, Fukuoka Institute of Technology, Japan**

1. Large-Sample Comparison of TCP Congestion Control Mechanisms over Wireless Networks
Kevin Ong, David Murray, Tanya McGill
2. The Effect of the Nonlinear Distortion on OFDM Based Cognitive Radio Systems Over Rayleigh Fading Channel
Hanen Lajnef, Maha Cherif Dakhli, Moez Hizem, Ridha Bouallegue
3. QCN Performance Evaluation for Nicast Traffic Transmission
Hela Mliki, Lamia Chaari, Lotfi Kamoun
4. A Quick Convergence Active Constellation Extension Projection onto Convex Sets Algorithm for Reducing the PAPR of OFDM System
Mounira Laabidi, Rafik Zayani, Ridha Bouallegue
5. Downlink Beamforming and Power Allocation in Cognitive Radio Network with Outdated and Limited Feedback of Channel Estimates
Imen Turki, Ines Kammoun, Mohamed Siala

WTIN-S1: Image Processing I**Chair: Ji-Han Jiang, National Formosa University, Taiwan**

1. Adaptable Dense Representation with Collaborative Representation Classification for Face Recognition Using Low-Rank Matrices Recovery
Deng-Yuan Huang, Ching-Ning Huang, Wu-Chih Hu
2. Lightweight Topological-Based Map Matching for Indoor Navigation
Ji-Han Jiang, Hoang-Long Le, Shih-Chieh Shie
3. Human Action Recognition Based on Action Forests Model Using Kinect Camera
Chi-Hung Chuan, Ying-Nong Chen, Kuo-Chin Fan
4. A Computer-Aided Grading System of Breast Carcinoma: Scoring of Tubule Formation
Chien-Chuan Ko, Chi-Yang Cheng, Chun-Hung Lin
5. Selecting the Universal Features for Breast Lumps with Different Acquisition Parameter Settings
Chuan-Yu Chang, Mao-Cheng Chen, Shao-Jer Chen

TeNAS-S1: Network Technology and Applications**Chair: Teh-Sheng Huang, Chunghwa Telecom Lab., Taiwan**

1. L2OVX: An On-demand VPLS Service with Software-Defined Networks
Jen-Wei Hu, Chu-Sing Yang, Te-Lung Liu
2. A Quality Assurance Approach and Case Study in BSS
Teh-Sheng Huang, Chia-Yen Chan, Jeu-Yih Jeng
3. A Cache Management Method for Simultaneous Downloading from Multiple Receivers for Content Centric Networking
Kyouhei Sasano, Masaki Bandai, Miki Yamamoto
4. A Visible Light Communication Positioning Mechanism in Industrial Logistics Management
Shih-Hao Chang, Chi-Yi Lin

STPA-S1: Security, Intrusion Detection and Access Control**Chair: Arindam Pal, TCS Innovation Labs, India**

1. Security Identifier Randomization: A Method to Prevent Kernel Privilege-Escalation Attacks
Lifeng Wei, Yudan Zuo, Yan Ding, Pan Dong, Chenlin Huang, Yuanming Gao
2. IaaS Platforms: How Secure Are They?
Irina Astrova, Arne Koschel, Mats Lennart Henke
3. A Host and Network Based Intrusion Detection For Android Smartphones
Kanishka Ariyapala, Hoang Giang Do, Huynh Ngoc Anh, Wee Keong Ng, Mauro Conti
4. Analysis of Intrusion Detection and Prevention Systems as Queueing Services
Sergey Zapechnikov, Natalia Miloslavskaya, Alexander Tolstoy

12:30-14:00 Lunch Break**14:00-16:00 Parallel Sessions****AINA-S13: Distributed and Parallel Systems II****Chair: Makoto Takizawa, Hosei University, Japan**

1. An Autonomic Majority Quorum System
Luiz A. Rodrigues, Luciana Arantes, Elias P. Duarte Jr
2. ContentSDN: A Content-Based Transparent Proxy Architecture in Software-Defined Networking
Alex F. R. Trajano, Marcial P. Fernandez
3. Priority-Based State Machine Replication with PRaxos
Paulo R. Pinho Filho, Luciana de Oliveira Rech, Lau Cheuk Lung, Miguel Correia, Lásaro Jonas Camargos
4. Approximate-Centroid Election in Large-Scale Distributed Embedded Systems
André Naz, Benoît Piranda, Seth Copen Goldstein, Julien Bourgeois
5. An Energy-aware Migration of Virtual Machines
Dilawaer Duolikun, Ryo Watanabe, Hiroki Kataoka, Shigenari Nakamura, Tomoya Enokido, Makoto Takizawa
6. Energy-Aware Server Selection Algorithms in a Scalable Cluster
Hiroki Kataoka, Atsuhiko Sawada, Dilawaer Duolikun, Tomoya Enokido, Makoto Takizawa

AINA-S14: Pervasive and Ubiquitous Computing II**Chair: Markus Aleksy, ABB AG, Germany**

1. Energy Considerations for Continuous Group Activity Recognition Using Mobile Devices: the case of GroupSense
Amin B. Abkenar, Seng W. Loke, Wenny Rahayu, Arkady Zaslavsky
2. A Positioning Handoff Decision Algorithm for Ubiquitous Pedestrian Navigation Systems
Wiem Fekih Hassen, Faiza Najjar
3. Microinteractions in Mobile and Wearable Computing
Markus Aleksy, Jonas Bronmark, Shakeel Mahate
4. Soft Fall Detection Using Machine Learning in Wearable Devices
Dominique Genoud, Vincent Cuendet, Julien Torrent
5. Clustering Depth Based Routing for Underwater Wireless Sensor Networks
Tanveer Khan, Israr Ahmad, Waqas Aman, Irfan Azam, Zahoor Ali Khan, Umar Qasim, Sanam Avais, Nadeem Javaid
6. A QoS-Guaranteed Adaptive Cooperation Scheme in Cognitive Radio Network
Yufeng Wang, Feilong Tang, Yanqin Yang, Jie Li, Wenchao Xu, Jinsong Wu

AINA-S15: Data Centers and Cloud Computing I**Chair: Nik Bessis, Edge Hill University, UK**

1. An Openstack Based Accounting and Billing Service for Future Internet Applications
Oladotun Omorebi, Stelios Sotiriadis, Nik Bessis
2. Service Oriented Verification Integrated Fault Reasoning for SDNs
Yongning Tang, Guang Cheng, Zhiwei Xu, Feng Chen
3. Examination of the Implementation Method of the Cloud Type Virtual Policy Based Network Management Scheme for the Common Use between Plural Organizations
Kazuya Odgairi, Shogo Shimizu, Naohiro Ishii, Makoto Takizawa
4. Advance Reservation System for Datacenters
Roxana Istrate, Andrei Poenaru, Florin Pop
5. Partitioning-Based Workflow Scheduling in Clouds
Khaled Almi'ani, Young Choon Lee

FINA-S5: Distributed Algorithms and Applications**Chair: Aiguo He, The University of Aizu, Japan**

1. Path Loss Characteristics for Wireless Communication System in Rotating Electrical Machine
S. Ben Brahim, R. Bouallegue, J. David, T. H. Vuong
2. Selecting Web Search Results of Diverse Contents with Search Engine Suggests and a Topic Model
Yusuke Inoue, Takakazu Imada, Syunya Doi, Lei Chen, Takehito Utsuro, Yasuhide Kawada
3. PseudoHandWriting: New Approach for Oral Presentation to have Both Advantages of Slide and Handwriting
Takenobu Kazuma, Erika Yoshida, Yan Yu, Aiguo He
4. A Novel Context-based Risk Assessment Approach in Vehicular Networks
Farhan Ahmad, Asma Adnane
5. A Fault-Tolerant Handshake Algorithm for Local Computations
Allyx Fontaine, Mohamed Mosbah, Mohamed Tounsi, Akka Zemmari

WITIN-S2: Image Processing II**Chair: Lung-Jen Wang, National Pingtung University, Taiwan**

1. Geological Segmentation on UAV Aerial Image Using Shape-Based LSM with Dominant Color
Chieh-Ling Huang, Jwu-Jenq Chen, Ching-Ju Chen, Yung-Gi Wu
2. The Development and Implementation of a Real-Time Depth Image Capturing System using SoC FPGA
Chien-Chung Wu, Kai-Wen Weng
3. An Efficient Quadtree-based Block Truncation Coding for Digital Image Compression
Fu-Jhong Yang, Chih-Yuan Lien, Pei-Yin Chen., Chih-Ling Hsu
4. A Fast Linear-Prediction Fractional-Pixel Search Algorithm
Lung-Jen Wang, Wen-Ming Tai
5. Adaptive Carrier Frequency Offset and Channel Estimation for MIMO-OFDM Systems
Chang-Yi Yang, Yu-Li Chen, Hai-Yan Song

TeNAS-S2: Mobile Networks**Chair: Teh-Sheng Huang, ChungHwa Telecom, Taiwan**

1. Contextual Source Selection for Federated Search in Mobile Environment
Benachour Hamid, Kechid Samir
2. Detect DoS Attack Using MrDR Method in Merging Two MANETs
Albandari Alsumayt, John Haggerty, Ahmad Lotfi
3. The Application of Web Services for Real Time Charging in Mobile Networks
Farouk Gaffoor, Bobby L. Tait

IWDENS-S1: Disaster Information Systems and Applications**Chair: Yoshitaka Shibata, Iwate Prefectural University, Japan**

1. Proposal of Vehicle-to-Vehicle Based Delay Tolerant Networks with Adaptive Array Antenna Control Systems
Noriki Uchida, Kazuo Takahata, Yoshitaka Shibata, Norio Shiratori
2. A Resilient Network and Information Management System for Large Scale Disaster
Yoshitaka Shibata, Noriki Uchida, Norio Shiratori
3. Mobile Cloud Computing by in-Vehicle Servers Based on Delay Tolerant Network Protocol
Masaki Otomo, Noriki Uchida, Yoshitaka Shibata
4. Improvement of Autonomous Anti-disaster Base Station by Combination of Satellite and Wireless Networks
Hiroaki Yuze, Shinichi Nabeta, Yuji Ito, Hiroshi Kosaka, Yoshitaka Shibata

16:00-16:30 Coffee Break**16:30-18:30 Parallel Sessions****AINA-S16: Security and Privacy I****Chair: Sushmita Ruj, Indian Statistical Institute, India**

1. Privacy Preservation for Participatory Sensing Applications
Yuichi Sei, Akihiko Ohsuga
2. A Proposal of a Password Manager Satisfying Security and Usability by Using the Secret Sharing and a Personal Server
Masayuki Fukumitsu, Shingo Hasegawa, Jun-ya Iwazaki, Masao Sakai, Daiki Takahashi

3. Tightly-Secure Identity-Based Structured Aggregate Signature Scheme under the Computational Diffie-Hellman Assumption
Tomoya Iwasaki, Naoto Yanai, Masaki Inamura, Keiichi Iwamura
4. Preferential Attachment Model with Degree Bound and Its Application to Key Predistribution in WSN
Sushmita Ruj, Arindam Pal
5. OS and Application Identification by Installed Fonts
Takamichi Saito, Takayuki Ishikawa, Ko Takasu, Tomotaka Yamada, Naoki Takei, Rio Hosoi, Kazushi Takahashi, Koki Yasuda
6. An (n, n) -Multi Secret Image Sharing Scheme using Boolean XOR and Modular Arithmetic
Maroti Deshmukh, Neeta Nain, Mushtaq Ahmed

AINA-S17: Vehicular Networks and Applications II

Chair: Isaac Woungang, Ryerson University, Canada

1. Performance Comparison of Different Routing Protocols in Sparse and Dense VDTNs
Evjola Spaho, Leonard Barolli, Vladi Kolici, Algenti Lala
2. A Method for Recognizing Driver's Location Context with a Vehicle Information Device
Seiji Matsuyama, Takatomo Yamabe, Yuki Nakayama, Yu Okuwaki, Ryoza Kiyohara
3. Experimentation of V2X Communication in Real Environment for Road Alert Information Sharing System
Kenta Ito, Go Hirakawa, Yoshitaka Shibata
4. Content and Context Aware Strategies for QoS Support in VANETs
Gianluca Rizzo, Maria Rita Palattella, Torsten Braun, Thomas Engel
5. TrAD: Traffic Adaptive Data Dissemination Protocol for Both Urban and Highway VANETs
Bin Tian, Kun Mean Hou, Jianjin Li

AINA-S18: Data Centers and Cloud Computing II

Chair: Giuseppe Caragnano, Mario Boella Research Institute, Italy

1. Implementing a cloud-based service supporting biological network simulations
Fabrizio Bertone, Giuseppe Caragnano, Lorenzo Mossucca, Olivier Terzo, Alfredo Benso, Gianfranco Politano, Alessandro Savino
2. QoS-aware scheduling of Workflows in Cloud Computing environments
Khadija Bousselmi, Zaki Brahmi, Mohamed Mohsen Gammoudi
3. Formal Verification of Cloud Resource Allocation in Business Processes using Event-B
Souha Boubaker, Amel Mammar, Mohamed Graiet, Walid Gaaloul
4. A Cloud-Based Energy Efficient System for Enhancing the Detection and Prevention of Modern Malware
Qublai Khan Ali Mirza, Ghulam Mohi-ud-din, Irfan Awan
5. Practical Single Node Failure Recovery Using Fractional Repetition Codes in Data Centers
May Itani, Sanaa Sharafeddine, Islam ElKabbani

EASyCoSe-S1: Energy-Aware Systems and Protocols

Chair: Francesco Palmieri, University of Salerno, Italy

1. Balancing Delays and Energy Consumption in IPS-Enabled Networks
Alessio Merlo, Mauro Migliardi, Elena Spadacini
2. AHP and Soft Computing for Energy-Aware Decision-Making
Luigi Benedicenti
3. Identifying Energy-Deprivation in Wireless Sensor Networks
Sherenaz W. Al-Haj Baddar

4. Interoperable Access Control by Means of a Semantic Approach
Christian Esposito, Aniello Castiglione, Francesco Palmieri
5. Protocols for Energy-efficiently Broadcasting Messages in Wireless Networks
Miyu Sugino, Shigenari Nakamura, Tomoya Enokido, Makoto Takizawa
6. A Scalable Group Communication Protocol in Heterogeneous Networks
Hiroaki Honda, Shigenari Nakamura, Hiroki Nakayama, Dilawaer Duolikun, Tomoya Enokido, Makoto Takizawa

WITIN-S3: Data Processing and Knowledge Management

Chair: Shun-Hsyung Chang, National Kaohsiung Marine University, Taiwan

1. Using Prefix Tree to Improve the Performance of Chinese Sentiment Analysis
Yi-Jen Su, Rung-Ching Chen, Chin-Min Hsiung, Yue-Qun Chen, Shuo-Wen Yu, Huang-Wei Huang
2. Analysis of the Queue Service Probability for the EDF Scheduling Algorithm
Mu-Song Chen, Chi-Pan Hwang, Hsuan-Fu Wang
3. Performance Evaluation of Call Center Agents by Neural Networks
Hui-Huang Hsu, Te-Chan Chen, Wei-Tsung Chan, Jung-Kuei Chang
4. A PTC Scheme for Internet of Things: Private-Trust-Confidentiality
Chih-Hsueh Lin, Wen-Shyong Hsieh, Fu Mo, Ming-Hao Chang
5. Development of Car Cloud Sensor Network Application Platform
Chi-Pan Hwang, Mu-Song Chen, Hsuan-Fu Wang

EEEWSN-S1: Modelling and Performance Evaluation

Chair: Leonardo Mostarda, University of Camerino, Italy

1. Analytical Modelling and Performability Evaluation of LTE as Dominant Connectivity Technology for Internet of Things
Yonal Kiral, Yoney Kirsal Ever
2. Algorithms for Services with Multiple Levels of Quality
Alfredo Navarra, Pietro Palazzo, Cristina M. Pinotti, Leonardo Mostarda
3. A Data Acquisition and Document Oriented Storage Methodology for ANT+ Protocol Sensors in Real-Time Web
Nadeem Qaisar Mehmood, Rosario Culmone
4. Towards a Uniform Ontology-Driven Approach for Modeling, Checking and Executing WSANs
Claudia Vannucchi, Diletta Romana Cacciagrano, Rosario Culmone, Leonardo Mostarda

IWDENS-S2: Disaster Information Networks and Services

Chair: Yoshitaka Shibata, Iwate Prefectural University, Japan

1. Proposal of a Common Infrastructure System for Real-Time Disaster Information Transmission
Kazuhiro Takahagi, Tomoyuki Ishida, Noriki Uchida, Yoshitaka Shibata
2. Optimizing Media Quality Parameters to Reduce Energy Consumption for Emergency Communication Services
Ken Nishimura, Kaoru Sugita, Tomoyuki Ishida
3. Extending Network Coverage by Using Static and Mobile Relays during Natural Disasters
Michal Krol, Yusheng Ji, Shigeki Yamada, Cristian Borcea, Lei Zhong, Kiyoshi Takano
4. Big Data based Service Area Estimation for Mobile Communications during Natural Disasters
Lei Zhong, Kiyoshi Takano, Yusheng Ji, Shigeki Yamada

19:00-21:00 Banquet Party

Friday, March 25, 2016**08:00 Registration****09:00-10:00 Single Session: Keynote Talk III****IEEE AINA 2016 Keynote Talk III (PLENARY ROOM)**

Mr. Arijit Ukil: IoT Healthcare Analytics: The Importance of Anomaly Detection

10:00-10:30 Coffee Break**10:30-12:30 Parallel Sessions****AINA-S19: Security and Privacy II****Chair: Shou-Hsuan Stephen Huang, University of Houston, USA**

1. Analysis of “Receipt-Freeness” and “Coercion-Resistance” in Biometric Authentication Protocols
Yoshifumi Ueshige, Kouichi Sakurai
2. Game-theoretic Security of Commitment Protocols under a Realistic Cost Model
Tsuyoshi Komatsubara, Yoshifumi Manabe
3. Resistance to Chaff Attack through TCP/IP Packet Cross-Matching and RTT-based Random Walk
Jianhua Yang
4. Application of HAZOP to the Design of Cyber Security Experiments
Masood Mansoori, Ian Welch, Kim-Kwang Raymond Choo, Roy A. Maxion
5. Preventing Pass-the-Hash and Similar Impersonation Attacks in Enterprise Infrastructures
Alexander Oberle, Pedro Larbig, Ronald Marx, Frank G. Weber, Dirk Scheuermann, Daniel Fages, Fabien Thomas
6. Network Packet Filtering and Deep Packet Inspection Hybrid Mechanism for IDS Early Packet Matching
Zouheir Trabelsi, Safaa Zeidan, Mohammad M. Masud

AINA-S20: Internet Computing and Web Applications**Chair: Fatos Xhafa, Technical University of Catalonia, Spain**

1. A Location-Based Attendance Confirming System
Masaki Kohana, Shusuke Okamoto
2. A Web Interface for Satellite Scheduling Problems
Fatos Xhafa, Carlos Garcia, Admir Barolli, Makoto Takizawa
3. Connection Management Using the Locality of Application Traffic
Hui-Hwan Park, Kyung-Min Park, Hoon Choi
4. A Framework for Massively Multiplayer Online Game Content Generation
Tiago Alves, Jorge Coelho
5. On Cooperative On-Path and Off-Path Caching Policy for Information Centric Networks (ICN)
Hemant Kumar Rath, Bighnaraj Panigrahi, Anantha Simha
6. Addressing Challenges in Browser Based P2P Content Sharing, Framework Using WebRTC
Shikhar Vashishth, Yash Sinha, K. Hari Babu

AINA-S21: Smart Home and Smart Cities**Chair: Florin Pop, University Politehnica of Bucharest, Romania**

1. A Smart Home Energy Management Strategy Based on Demand Side Management
Zafar Iqbal, Nadeem Javaid, Mobushir Riaz Khan, Farman Ali Khan, Zahoor Ali Khan, Umar Qasim
2. Soft Real-Time Hadoop Scheduler for Big Data Processing in Smart Cities
Ciprian Barbieru, Florin Pop
3. An Architecture for Monitoring and Improving Public Transportation Systems
Pedro H. S. Duarte, Luis F. Faina, Lasaro J. Camargos, Luciano B. de Paula, Rafael Pasquini
4. Water Level Meter for Alerting Population about Floods
J. A. Hernández Nolasco, Miguel A. Wister Ovando, Francisco D. Acosta, Pablo Pancardo
5. Defeasible Reasoning about Electric Consumptions
Matteo Cristani, Claudio Tomazzoli, Erisa Karafili, Francesco Olivieri
6. HVAC System for Maintaining Pleasant Sleep during Warm Nights in Japan
Kanae Matsui

PITSaC-S1: Internet of Things**Chair: Antonio Jara, HES-SO, Switzerland**

1. Distributed Query Results and IoT Data in a Publish-Subscribe Network Implementing User Notifications
Diego Sánchez de Rivera, Ramón Alcarria, Diego Martín, Álvaro Sánchez-Picot, Borja Bordel, Tomás Robles
2. Modeling and Simulation of Interactions Among People and Devices in Ambient Intelligence Environments
Álvaro Sánchez-Picot, Diego Martín, Diego Sánchez de Rivera, Borja Bordel, Tomás Robles
3. Smart Spaces for On-line Tailor-Made Production of Clothes
Petra Perner
4. Connected Smart Cities: Interoperability with SEG 3.0 for the Internet of Things
Amelie Gyrard, Martin Serrano
5. SOFT-IoT: Self-Organizing FOG of Things
Cassio Vinicius Serafim Prazeres, Martin Serrano

BOSON-S1: Big Data Processing**Chair: Flora Amato, University of Naples Federico II, Italy**

1. A GPU-Parallel Algorithm for ECG Signal Denoising Based on the NLM Method
Salvatore Cuomo, Pasquale De Michele, Ardelio Galletti, Livia Marcellino
2. Automatic Design Space Exploration of Approximate Algorithms for Big Data Applications
Mario Barbareschi, Federico Iannucci, Antonino Mazzeo
3. Automatic Cloud Services Composition for Big Data Management
Flora Amato, Francesco Moscato
4. A Logic Framework for C2C Network Management
Walter Balzano, Maria Rosaria Del Sorbo, Silvia Stranieri
5. M-DGPS: An Algorithm for the Post-Processing of Geodetic Tracks Based on Multiple DGPS
Walter Balzano, Maria Rosaria Del Sorbo, Aniello Murano

BICom-S1: Intelligent Algorithms and Systems**Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan**

1. A Fuzzy Search Based Joint Dual Mobile Service Discovery and Exposure Model
Walid El Ayeb, Zied Choukair

2. A Neural Network Based User Identification for Tor Networks: Data Analysis Using Friedman Test
Taro Ishitaki, Tetsuya Oda, Leonard Barolli
3. Effect of Angle Incidence on the Accuracy of Indoor Prediction Model Based on Neural Network
Mohamed Ayadi
4. Comparison between Classifier's Accuracies Based on Different Outlier Methods Generated by Frequent and Infrequent Categorical Data
B. Raveendra Babu, Lakshmi Sreenivasa Reddy D.
5. Cost and Load Reduction using Heuristic Algorithms in Smart Grid
Zafar Iqbal, Nadeem Javaid, Mobushir Riaz Khan, Imran Ahmed, Zahoor Ali Khan, Umar Qasim
6. A Novel Approach to Geocaching Event Prognosis Using Spatiotemporal Data
Tomasz Hachaj, Pawel S. Hachaj, Marek R. Ogiela

DC2-S1: IoT, Cloud and Vehicular Networks

Chair: Jaehoon (Paul) Jeong, Sungkyunkwan University, Korea

1. Data Pipeline for Generation and Recommendation of the IoT Rules Based on Open Text Data
Inchul Hwang, Munjo Kim, Hyoung Joo Ahn
2. Detecting False Emergency Requests Using Callers' Reporting Behaviors and Locations
Mahdi Daghmehchi Firoozjaei, Jaewoo Park, Hyoungshick Kim
3. SAN: Self-Adaptive Navigation for Drone Battery Charging in Wireless Drone Networks
Jinyong Kim, Jinho Lee, Jaehoon (Paul) Jeong, Hyoungshick Kim, Jung-Soo Park, Taeho Kim
4. CASD: A Framework of Context-Awareness Safety Driving in Vehicular Networks
Yiwen (Chris) Shen, Jaehoon (Paul) Jeong, Tae (Tom) Oh, Sang Hyuk Son
5. DCMAC: Data-Oriented Cluster-Based Media Access Control Protocol for Vehicular Networks
Jinho Lee, Jaehoon (Paul) Jeong, Tae (Tom) Oh, Junghyun Jun, Sang Hyuk Son
6. RPA: Road-Side Units Placement Algorithm for Multihop Data Delivery in Vehicular Networks
Younghwa Jo, Jaehoon (Paul) Jeong

12:30-14:00 Lunch Break

14:00-16:00 Parallel Sessions

AINA-S22: Security and Privacy III

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

1. Intersection Automata based Model for Android Application Collusion
Shweta Bhandari, Vijay Laxmi, Akka Zemmari, Manoj Singh Gaur
2. A Data Usage Control System using Dynamic Taint Tracking
Julian Schütte, Gerd Stefan Brost
3. Privacy-Preserving Triangle Counting in Distributed Graphs
Hoang Giang Do, Wee Keong Ng
4. Failure Tolerant Rational Secret Sharing
Sourya Joyee De, Sushmita Ruj
5. Secure Neighbor Discovery in Mobile Ad Hoc Networks through Local Topology Visualization
Somayeh Taheri, Radu Stoleru, Dieter Hogrefe
6. Empirical Analysis of Impact of HTTP Referer on Malicious Website Behaviour and Delivery
Masood Mansoori, Yuichi Hirose, Ian Welch, Kim-Kwang Raymond Choo

AINA-S23: Intelligent Computing**Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan**

1. QoE-Fuzzy VHO Approach for Heterogeneous Wireless Networks (HWNs)
Aymen Ben Zineb, Mohamed Ayadi, Sami Tabbane
2. Effect of Security Parameter for Selection of Actor Nodes in WSN: A Comparison Study of Two Fuzzy-Based Systems
Donald Elmazi, Shinji Sakamoto, Tetsuya Oda, Elis Kulla, Evjola Spaho, Leonard Barolli
3. Fuzzy-Based Trust Model for Detection of Selfish Nodes in MANETs
Zia Ullah, Muhammad Saleem Khan, Idrees Ahmed, Nadeem Javaid, Majid.I.Khan
4. A Machine Learning based Web Spam Filtering Approach
Santosh Kumar, Xiaoying Gao, Ian Welch, Masood Mansoori
5. Experimental Results of a Raspberry Pi Based WMN Testbed Considering CPU Frequency
Tetsuya Oda, Leonard Barolli
6. A Python Framework for Exhaustive Machine Learning Algorithms and Features Evaluations
Fabien Dubosson, Stefano Bromuri, Michael Schumacher

AINA-S24: Internet of Things**Chair: Isaac Woungang, Ryerson University, Canada**

1. IoT Healthcare Analytics: The Importance of Anomaly Detection
Arijit Ukil, Soma Bandyopadhyay, Chetanya Puri, Arpan Pal
2. Efficient Broadcast Protocol for the Internet of Things
Hicham Lakhlef, Michel Raynal, Julien Bourgeois
3. Multi-Master Replication of Enhanced Learning Assistant System in IoT Cluster
Bishnu Prasad Gautam, Katsumi Wasaki, Amit Batajoo, Suresh Shrestha, Sato Kazuhiko
4. Trust Management Framework for Internet of Things
Yefeng Ruan, Arjan Durresi, Lina Alfantoukh
5. Dynamic Street-Parking Optimisation
Nuria Pazos, Michael Müller, Matthieu Favre-Bulle, Kilian Brandt-Dit-Grieurin, Olivier Hüsser, Marco Aeberli, Nabil Ouerhani
6. Performance Analysis of 6LoWPAN and CoAP for Secure Communications in Smart Homes
Rafael de Jesus Martins, Vinicius Garcez Schaurich, Luis Augusto Dias Knob, Juliano Araujo Wickboldt, Alberto Schaeffer Filho, Lisandro Zambenedetti Granville, Marcelo Pias

PITSaC-S2: Smart Cities and Mobility**Chair: Antonio Jara, HES-SO, Switzerland**

1. Mobility Support for the Routing Protocol in Low Power and Lossy Networks
Hanane Lamaazi, Nabil Benamar, Muhammad Iqbal Imaduddin, Adib Habbal, Antonio J. Jara
2. Off-the-Shelf Embedded Middleware Solution for UAVs HW-SW Platform Development
J. Barba, F. J. Villanueva, M. J. Abaldea, D. Villa, O. Acena, J. Carlos López
3. Heating and Hot Water Industrial Prediction System for Residential District
Luc Dufour, Antonio J. Jara, Dominique Genoud, Bruno Ladevie and Jean-Jacques Bezian
4. Economic Interest of Heating and Hot Water Prediction System for Residential District
Luc Dufour, Antonio J. Jara, Dominique Genoud, Francesco Cimmino, Stephane Genoud, Bruno Ladevie and Jean-Jacques Bezian
5. Improving the Locating Precision of an Active WIFI RFID System to Obtain Traceability of Patients in a Hospital
María Martínez Pérez, Guillermo Vázquez González, José Ramón Vizoso Hermida, Isabel Martín Herranz, Carlos Dafonte

BOSON-S2: Distributed Computing Methods and Applications**Chair: Flora Amato, University of Naples Federico II, Italy**

1. Unsupervised SPITters Detection Scheme for Unbalanced Callers
Kentaroh Toyoda, Mirang Park, Okazaki Naonobu
2. Challenges in Detecting Epidemic Outbreaks from Social Networks
Sara Romano, Sergio Di Martino, Nattiya Kanhabua, Antonino Mazzeo, Wolfgang Nejdl
3. WiFACT – Wireless Fingerprinting Automated Continuous Training
Walter Balzano, Aniello Murano, Fabio Vitale
4. Modelling Multimedia Social Network for Topic Ranking
Flora Amato, Vincenzo Moscato, Antonio Picariello, Giancarlo Sperli
5. Implementing Hardware Decision Tree Prediction: a Scalable Approach
Mario Barbareschi

ITIS-S1: Innovative Systems**Chair: Hideki Mori, Meiji University, Japan**

1. Cloudlet Softwarization for Pervasive Healthcare
Aymen El Amraoui, Kaouthar Sethom
2. An Implementation of Visualization System for Vehicles and Pedestrians
Akio Koyama, Daisuke Inoue, Shuji Shoji
3. Performance Evaluations of LXC based Educational Cloud in Amazon EC2
Minoru Uehara
4. Small-World Architecture for Parallel Processors
Hideki Mori, Minoru Uehara

MAW-S1: Web and Internet Applications**Chair: Kin Fun Li, University of Victoria, Canada**

1. Toward a Forensic Analysis of Voting Systems
Suzanne Mello-Stark, Edmund A. Lamagna
2. Analysis of Software Developer Activity on a Distributed Version Control System
Shu Li, Hayato Tsukiji, Kosuke Takano
3. Big Data Analytics for Classification of Network Enabled Devices
Deepali Arora, Kin Fun Li, Alex Loffler
4. Design of an Ambient Intelligence Testbed for Improving Quality of Life
Ryoichiro Obukata, Tetsuya Oda, Leonard Barolli
5. Design of an IoT-Based E-Learning Testbed
Masafumi Yamada, Tetsuya Oda, Keita Matsuo, Leonard Barolli

16:00-16:30 Coffee Break**16:30-18:30 Parallel Sessions**

AINA-S25: Security and Privacy IV**Chair: Hiroaki Kikuchi, Meiji University, Japan**

1. Ice and Fire: Quantifying the Risk of Re-identification and Utility in Data Anonymization
Hiroaki Kikuchi, Takayasu Yamaguchi, Koki Hamada, Yuji Yamaoka, Hidenobu Oguri, Jun Sakuma
2. Detecting Stepping-Stone Intruders by Identifying Crossover Packets in SSH Connections
Shou-Hsuan Stephen Huang, Hongyang Zhang, Michael Phay
3. Hardware Covert Attacks and Countermeasures
Jahnabi Phukan, Kin Fun Li, Fayez Gebali
4. On Using Cognitive Models in Cryptography
Marek R. Ogiela, Lidia Ogiela
5. Bio-Inspired Cryptographic Techniques in Information Management Applications
Lidia Ogiela, Marek R. Ogiela
6. Towards Better Attack Path Visualizations Based on Deep Normalization of Host/Network IDS Alerts
Amir Azodi, Feng Cheng, Christoph Meinel

AINA-S26: Social Networking and Collaborative Systems**Chair: Suengmin Rho, Sungkyul University, Korea**

1. LinkedPolitics: Incremental Semantic Lifting of Political Facts
Julien Tscherrig, Elena Mugellini, Omar Abou Khaled, Philippe Cudré-Mauroux
2. Leveraging Co-Authorship and Biographical Information for Author Ambiguity Resolution in DBLP
Hussein Hazimeh, Iman Youness, Jawad Makki, Hassan Noureddine, Julien Tscherrig, Elena Mugellini, Omar Abou Khaled
3. Distributed Cooperative Reasoning in Ambient Environment
Amina Jarraya, Khedija Arour, Amel Borgi, Amel Bouzeghoub
4. Towards a General Architecture for Social Media Data Capture from a Multi-domain Perspective
Alessio Bechini, Davide Gazzè, Andrea Marchetti, Maurizio Tesconi
5. Defining Human Behaviors Using Big Data Analytics in Social Internet of Things
Awais Ahmad, M. Mazhar Rathore, Anand Paul, Suengmin Rho

AINA-S27: Semantic Computing**Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan**

1. Leveraging Structural Information in Ontology Matching
Cheng Xie, Melisachew Wudage Chekol, Blerina Spahiu, Hongming Cai
2. Ontology-Based Information Extraction for Knowledge Enrichment and Validation
Dhomas Hatta Fudholi, Wenny Rahayu, Eric Pardede
3. An Ontology Driven Model Approach for the Creation and Evaluation of Models in the Electricity Retail Market: A Research in Progress
Geovanny Poveda, René Schumann
4. An Ontology Based Approach for Satisfying User Requests in Context Aware Settings
Sujata Swain, Rajdeep Niyogi
5. A Blocking Scheme for Entity Resolution in the Semantic Web
Gustavo de Assis Costa, José Maria Parente de Oliveira

AINA-S28: Grid, P2P and Scalable Computing**Chair: Makoto Takizawa, Hosei University, Japan**

1. Towards Peer-to-Peer Solution for Utilization of Volunteer Resources to Provide Computation-as-a-Service
Shashwati Banerjee, Mayank Pandey, M. M. Gore
2. Ant Colony Optimization Based Energy Management Controller for Smart Grid
Sahar Rahim, Zafar Iqbal, Nusrat Shaheen, Zahoor Ali Khan, Umar Qasim, Shahid Ahmed Khan, Nadeem Javaid
3. Reduction of Unnecessarily Ordered Event Messages in Peer-to-peer Model of Topic-based Publish/Subscribe Systems
Hiroki Nakayama, Dilawaer Duolikun, Tomoya Enokido, Makoto Takizawa
4. A Fuzzy-based Reliability System for JXTA-Overlay P2P Platform Considering as New Parameter Sustained Communication Time
Yi Liu, Shinji Sakamoto, Evjola Spaho, Keita Matsuo, Leonard Barolli, Fatos Xhafa
5. Trustworthy P2P Data Delivery for Moving Objects in Wireless Ad-Hoc Networks
Agustinus Borgy Waluyo, David Taniar, Bala Srinivasan, Wenny Rahayu
6. On Utilizing Static Courier Nodes to Achieve Energy Efficiency with Depth Based Routing for Underwater Wireless Sensor Networks
Zia Ur Rahman, Zaheer Ahmad, Amir Murad, Tanveer Khan, Zahoor Ali Khan, Umar Qasim, Nadeem Javaid

IOTCP-S1: IoT Privacy, Crowdsourcing and Technology Insight**Chair: Sébastien Ziegler, Mandat International, Switzerland**

1. Bringing Your Data Everywhere in the Internet of (Every) Thing: A Legal Reading of the New Right to Portability
Camilla Bistolfi, Lucio Scudiero
2. Internet of Things, Crowdsourcing and Systemic Risk Management for Smart Cities and Nations: Initial insight from IoT Lab European Research project
Sébastien Ziegler, Jose Rolim, Sotiris Nikoletsea
3. Consent, Risk and Compliance: Technologies and Processes
David Lund, George Mourikas, Abubakr Magzoub, Bassem Ammar, Noel Catterall.
4. Towards a Global IPv6 Addressing Model for The Internet of Things
Seastien Ziegler, Latif Ladid

NetMM-S1: Network Monitoring and Management**Chair: Alberto Marroquin, Universidad Galileo, Guatemala**

1. QoE-Driven Service Optimization Aware of the Business Model
Diego Rivera, Ana Cavalli
2. Traffic Profiling: Evaluating Stability in Multi-Device User Environments
Taimur Bakhshi, Bogdan Ghita
3. Ads Network Monitoring Integrating Realistic Urban Mobility Patterns
Thi Hien Le, Stephane Maag
4. Forward Experiments on The Test Cases Dependencies Architecture: A Use Case Trial
Alberto Marroquin, Diego Calderon, Manuel Hernandez

PAEWN-S1: Network Modelling and Performance Evaluation**Chair: Irfan Awan, University of Bradford, UK**

1. QoS/QoE-CAODV: Routing Protocol for Cognitive Radio Ad-hoc Network
Yosra Mallat, Mohamed Ayadi, Aymen Ayari, Sami Tabaane
2. Troubleshooting Wireless Home Networks Using a Portable Testbed
Enri Dalipi, Vincent Sercu, Pieter Becue, Bart Jooris, Ingrid Moerman, Jeroen Hoebeke
3. From Modeling with SysML to Simulation with Contiki Cooja Simulator of Wireless Sensor Networks
Nesrine Ammar, Hela Chaieb, Ridha Bouallegue
4. Evaluation of Power Control Mechanism on OLSR Routing Protocol
C. Bouras, V. Kapoulas, K. Stamos, N. Stathopoulos
5. Evaluation of the Energy Consumption and the Packet Loss in WSNs Using Deterministic Stochastic Petri Nets
Amel Berrachedi, Malika Boukala-Ioualalen

AInA-2016 Session Schedule
March 23 – 25, 2016
Crans-Montana, Switzerland

| Wednesday (March 23, 2016) | | ROOM A | ROOM B | ROOM C | ROOM D | ROOM E | ROOM F | ROOM G |
|----------------------------|---------------|------------------------------------|---------|---------|---------|----------|------------------|---------|
| Slot | Time | Registration | | | | | | |
| Session 1 | 09:00 – 10:00 | AInA-2016 Keynote I (Plenary Room) | | | | | | |
| Coffee Break | 10:00 – 10:30 | Coffee Break | | | | | | |
| Session 2 | 10:30 – 12:30 | AINA S1 | AINA S2 | AINA S3 | FINA S1 | HWISE S1 | COLLABES S1 | CCPI S1 |
| Lunch | 12:30 – 14:00 | Lunch Break | | | | | | |
| Session 3 | 14:00 – 16:00 | AINA S4 | AINA S5 | AINA S6 | FINA S2 | HWISE S2 | COLLABES S2 | CCPI S2 |
| Coffee Break | 16:00 – 16:30 | Coffee Break | | | | | | |
| Session 4 | 16:30 – 18:30 | AINA S7 | AINA S8 | AINA S9 | FINA S3 | HWISE S3 | INTRICATE-SEC S1 | CCPI S3 |
| Social Event | 19:00 – 21:00 | Welcome Reception Party | | | | | | |

| Thursday (March 24, 2016) | | ROOM A | ROOM B | ROOM C | ROOM D | ROOM E | ROOM F | ROOM G |
|---------------------------|---------------|-------------------------------------|----------|----------|-------------|----------|-----------|-----------|
| Slot | Time | Registration | | | | | | |
| Session 1 | 09:00 – 10:00 | AInA-2016 Keynote II (Plenary Room) | | | | | | |
| Coffee Break | 10:00 – 10:30 | Coffee Break | | | | | | |
| Session 2 | 10:30 – 12:30 | AINA S10 | AINA S11 | AINA S12 | FINA S4 | WITIN S1 | TeNAS S1 | STPA S1 |
| Lunch | 12:30 – 14:00 | Lunch Break | | | | | | |
| Session 3 | 14:00 – 16:00 | AINA S13 | AINA S14 | AINA S15 | FINA S5 | WITIN S2 | TeNAS S2 | IWDWNS S1 |
| Coffee Break | 16:00 – 16:30 | Coffee Break | | | | | | |
| Session 4 | 16:30 – 18:30 | AINA S16 | AINA S17 | AINA S18 | EASyCoSe S1 | WITIN S3 | EEEWSN S1 | IWDWNS S2 |
| Social Event | 19:00 – 21:00 | Banquet Party | | | | | | |

| Friday (March 25, 2016) | | ROOM A | ROOM B | ROOM C | ROOM D | ROOM E | ROOM F | ROOM G |
|-------------------------|---------------|--------------------------------------|----------|----------|-----------|----------|----------|----------|
| Slot | Time | Registration | | | | | | |
| Session 1 | 09:00 – 10:00 | AInA-2016 Keynote III (Plenary Room) | | | | | | |
| Coffee Break | 10:00 – 10:30 | Coffee Break | | | | | | |
| Session 2 | 10:30 – 12:30 | AINA S19 | AINA S20 | AINA S21 | PITSaC S1 | BOSON S1 | BICOM S1 | DC2 S1 |
| Lunch | 12:30 – 14:00 | Lunch Break | | | | | | |
| Session 3 | 14:00 – 16:00 | AINA S22 | AINA S23 | AINA S24 | PITSaC S2 | BOSON S2 | ITIS S1 | MAW S1 |
| Coffee Break | 16:00 – 16:30 | Coffee Break | | | | | | |
| Session 4 | 16:30 – 18:30 | AINA S25 | AINA S26 | AINA S27 | AINA S28 | IOTCP S1 | NetMM S1 | PAEWN S1 |