

# PROGRAM GUIDE



## CISIS-2015

The 9-th International Conference on  
Complex, Intelligent, and Software Intensive Systems

and



## IMIS-2015

The 9-th International Conference on  
Innovative Mobile and Internet Services in Ubiquitous Computing  
July 8<sup>th</sup> - July 10<sup>th</sup>, 2015 Regional University of Blumenau (FURB),  
Blumenau, Brazil

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**CISIS-2015 Organizing Committee****Honorary Co-Chairs**

Makoto Takizawa, *Hosei University, Japan*

Joao Natel Pollonio Machado, *FURB, Brazil*

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Makoto Ikeda, *Fukuoka Institute of Technology, Japan*

**Web Administrator Chair**

Tetsuya Oda, *Fukuoka Institute of Technology, Japan*

## Welcome Message from CISIS 2015 General Co-Chairs

Welcome to the 9-th International Conference on Complex, Intelligent and Software Intensive Systems (CISIS 2015), which will be held from July 8-th to July 10-th, 2015, at Regional University of Blumenau (FURB), Blumenau, Brazil, in conjunction with IMIS 2015 International Conference.

The aim of the conference is to deliver a platform of scientific interaction between the three interwoven challenging areas of research and development of future ICT-enabled applications: Software Intensive Systems, Complex systems and Intelligent Systems.

Software Intensive Systems are systems, which heavily interact with other systems, sensors, actuators, devices, other software systems and users. More and more domains are involved with software intensive systems, e.g. automotive, telecommunication systems, embedded systems in general, industrial automation systems and business applications. Moreover, the outcome of web services delivers a new platform for enabling software intensive systems. The conference is thus focused on tools, practically relevant and theoretical foundations for engineering software intensive systems.

Complex Systems Research is focused on the overall understanding of systems rather than its components. Complex Systems are very much characterized by the changing environments in which they act by their multiple internal and external interactions. They evolve and adapt through internal and external dynamic interactions.

The development of Intelligent Systems and agents, which is each time more characterized by the use of ontologies and their logical foundations build a fruitful impulse for both Software Intensive Systems and Complex Systems. Recent research in the field of intelligent systems, robotics, neuroscience, artificial intelligence, and cognitive sciences are very important factor for the future development and innovation of software intensive and complex systems.

The CISIS 2015 is aiming at delivering a forum for in-depth scientific discussions amongst the three communities. The papers included in the proceedings cover all aspects of theory, design and application of complex systems, intelligent systems and software intensive systems. The conference received 176 papers and accepted 44 papers (about 25% acceptance rate), which were selected after a careful review process.

The organization of an International Conference requires the support and help of many people. A lot of people have helped and worked hard to produce a successful CISIS 2015 technical program and conference proceedings. First, we would like to thank all the authors for submitting their papers, the Program Committee Members, and the reviewers who carried out the most difficult work by carefully evaluating the submitted papers.

We are grateful to Honorary Co-Chairs Prof. Makoto Takizawa, Hosei University, Japan and Prof. Joao Natel Pollonio Machado, FURB, Brazil for their guidance and advices.

We would like to thank Prof. Helio Dos Santos Silva, FURB, Brazil, Prof. Tomoya Enokido, Rissho University, Japan and Dr. Olivier Terzo, Mario Boella Istitute, Italy as CISIS 2015 PC Co-Chairs for their efficient and timely work.

This year in conjunction with CISIS 2015 we have 8 International Workshops that complemented CISIS 2015 program with contributions for specific topics. We would like to thank the Workshop Co-Chairs: Dr. Santi Caballé, Open University of Catalonia, Spain and Prof. Akio Koyama, Yamagata University, Japan and all workshops organizers for organizing these workshops.

We thank Dr. Makoto Ikeda as Finance Chair and Mr. Tetsuya Oda as Web Administrator for their excellent and timely work.

Finally, we would like to thank the Local Arrangement team of FURB for their support and good local arrangement for the conference.

We hope you will enjoy the conference and have a great time in Blumenau, Brazil.

**CISIS 2015 General Co-Chairs**

**Leonard Barolli**, *Fukuoka Institute of Technology (FIT), Japan*

**Fatos Xhafa**, *Technical University of Catalonia, Spain*

## **Welcome Message from CISIS 2015 Program Committee Co-Chairs**

Welcome to the 9-th International Conference on Complex, Intelligent and Software Intensive Systems (CISIS 2015), which will be held from July 8-th to July 10-th, 2015, at Regional University of Blumenau (FURB), Blumenau, Brazil in conjunction with IMIS 2015 International Conference.

This is the 9-th edition of the CISIS international conference, which has consolidated the conference as an important international event in the interconnected fields of Complex Systems, Intelligent Systems, and Software Intensive Systems. The goal of the conference is to bring together researchers from the different fields whose work is related to the above three challenging areas of ICT-enabled applications.

The CISIS 2015 conference edition was organized in 15 research tracks. The objective was to address and cover each main theme of the Software Intensive Systems, Complex Systems, and Intelligent Systems with a specific research track. The program for this conference is the result of hard and excellent work of many people, including authors, external reviewers, program committee members, track chairs, and conference officers. This year, we have selected 44 quality contributions among 176 papers received (about 25% acceptance rate). We believe that all of these papers not only provide novel ideas, new results, work in progress, and state-of-the-art techniques in this field, but also stimulate future research activities in the area of Complex Systems, Intelligent Systems, and Software Intensive Systems.

A lot of people have helped and worked hard to produce a successful CISIS 2015 event. We would like to express our sincere appreciation to all of them for their cooperation in completing the conference program under a very tight schedule. Firstly, we would like to thank CISIS 2015 General Co-Chairs: Prof. Leonard Barolli, Fukuoka Institute of Technology, Japan and Prof. Fatos Xhafa, Technical University of Catalonia, Spain for bringing together this important event. We are grateful to Honorary Co-Chairs Prof. Makoto Takizawa, Hosei University, Japan and Prof. Joao Natel Pollonio Machado, FURB, Brazil. We would like to give special thanks to all Track Co-Chairs for their time, energy, and expertise to make CISIS 2015 very successful. Also, we thank the Program Committee Members and Reviewers for their hard work and their valuable comments that improved the quality of the presented papers. Last but not least, we would like also to thank Dr. Makoto Ikeda and Mr. Tetsuya Oda, Fukuoka Institute of Technology, Japan for their excellent work with the conference Finance, Website and Submission System management. Finally, we would like to thank the Local Arrangement Team of FURB for their support and good local arrangement for the conference.

We hope you will enjoy the conference and have a great time in Blumenau, Brazil.

### **CISIS 2015 Program Committee Co-Chairs**

**Helio Dos Santos Silva**, *FURB, Brazil*  
**Tomoya Enokido**, *Rissho University, Japan*  
**Olivier Terzo**, *Mario Boella Istitute, Italy*



## Welcome Message from the Workshops Co-Chairs of CISIS 2015 International Conference

Welcome to the Workshops of the 9-th International Conference on Complex, Intelligent and Software Intensive Systems (CISIS 2015), which will be held from July 8-th to July 10-th, 2015, at Regional University of Blumenau (FURB), Blumenau, Brazil. We are pleased that for this edition of CISIS International Conference we have 8 International Workshops. Some of these workshops are in 6-th, 7-th, 8-th and 9-th editions. The objective was to complement as much as possible the main theme of CISIS 2015 with specific topics of different workshops in order to cover topics from the three challenging areas of ICT-enabled applications: Software Intensive Systems, Complex Systems and Intelligent Systems.

The list of workshops is as follows.

1. The 9-th International Workshop on Engineering Complex Distributed Systems (ECDS 2015)
2. The 8-th International Workshop on Engineering Parallel and Multi-Core Systems (ePaMus 2015)
3. The 8-th International Workshop on Intelligent Informatics and Natural Inspired Computing (IINIC 2015)
4. The 6-th International Workshop on Autonomic Distributed Systems (ADiS 2015)
5. The 6-th International Workshop on Frontiers on Complex, Intelligent and Software Intensive Systems (FCISIS 2015)
6. The 5-th Semantic Web/Cloud Information and Services Discovery and Management (SWISM 2015)
7. The 5-th International Workshop on Intelligent Computing In Large-Scale Systems (ICLS 2015)
8. The 4-th International workshop on Hybrid/Cloud computing Infrastructure for E-Science application (HCCIEA 2015)

These workshops bring to the researchers conducting research in specific themes the opportunity to learn from this rich multi-disciplinary experience. The Workshop Co-Chairs would like to thank CISIS 2015 International Conference Organizers for their help and support. We are grateful to the workshops organizers for their great efforts and hard work in proposing the workshops, selecting the papers, the interesting programs and for the arrangements of the workshops during the conference days. We are grateful to Dr. Makoto Ikeda and Mr. Tetsuya Oda, Fukuoka Institute of Technology, Japan for their excellent work and support as Finance Chair and Web Administrator. We would like to give special thanks to the Local Organization Team of FURB, Blumenau, Brazil.

We hope you enjoy the workshops programs and proceedings.

### Workshops Co-Chairs of CISIS 2015 International Conference

*Santi Caballé, Open University of Catalonia, Spain*

*Akio Koyama, Yamagata University, Japan*

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Makoto Takizawa, *Hosei University, Japan*

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**Publicity Chair**

Kangbin Yim, *SCH University, Korea*

**Local Arrangement Co-Chairs**

Ana Beatriz Blanco, *FURB, Brazil*

Marcel Hugo, *FURB, Brazil*

Cristina W. Medeiros, *Blumenau Convention Bureau, Brazil*

**Finance Chair**

Makoto Ikeda, *Fukuoka Institute of Technology (FIT), Japan*

**Web Administrator**

Tetsuya Oda, *Fukuoka Institute of Technology, Japan*

## Welcome Message from the IMIS 2015 General Co-Chairs

Welcome to the 9-th International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing (IMIS 2015), which will be held from July 8-th to July 10-th, 2015, at Regional University of Blumenau (FURB), Blumenau, Brazil in conjunction with the 9-th International Conference on Complex, Intelligent and Software Intensive Systems (CISIS 2015).

This International Conference focuses on the challenges and solutions for Ubiquitous and Pervasive Computing (UPC) with an emphasis on innovative, mobile and internet services. With the proliferation of wireless technologies and electronic devices, there is a fast growing interest in UPC. UPC enables to create a human-oriented computing environment where computer chips are embedded in everyday objects and interact with physical world. Through UPC, people can get online even while moving around, thus having almost permanent access to their preferred services. With a great potential to revolutionize our lives, UPC also poses new research challenges. The conference provides an opportunity for academic and industry professionals to discuss the latest issues and progress in the area of UPC.

For IMIS 2015, we received many paper submissions from all over the world. The papers included in the proceedings cover important aspects from UPC research domain. This year, we received 157 submissions and after a careful review process of 3 independent reviews per submission, 38 papers were accepted (about 24% acceptance rate).

It is impossible to organize such a successful program without the help of many individuals. We would like to express our great appreciation to the authors of the submitted papers, the program committee members, who provided timely and significant reviews, and special session chairs for their great efforts. We are grateful to Honorary Co-Chairs Prof. Makoto Takizawa, Hosei University, Japan and Prof. Joao Natel Pollonio Machado, FURB, Brazil for their advices and support. We would like to thank Dr. Francesco Palmieri, Second University of Naples, Italy, Prof. Helio Dos Santos Silva, FURB, Brazil and Dr. Hsing-Chung Chen, Asia University, Taiwan as PC Co-Chairs of IMIS 2015 for their timely work.

This year in conjunction with IMIS 2015 we have 7 International Workshops that complemented IMIS 2015 program with contributions for specific topics. We would like to thank the Workshop Co-Chairs Dr. Hae-Duck Joshua Jeong, Korean Bible University, Korea and Dr. Antonio J. Jara, University of Applied Sciences Western Switzerland, Switzerland, and all workshop organizers for organizing these workshops.

We thank Dr. Makoto Ikeda and Mr. Tetsuya Oda, Fukuoka Institute of Technology, Japan for their excellent work and support as Web Administrators.

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

We hope that all of you enjoy IMIS 2015 and find this a productive opportunity to learn, exchange ideas and make new contacts.

### IMIS 2015 General Co-Chairs

**Leonard Barolli**, *Fukuoka Institute of Technology (FIT), Japan*

**Ilsun You**, *Korean Bible University (KBU), Korea*

### **Welcome Message from IMIS 2015 Program Committee Co-Chairs**

As PC Co-Chairs, we would like to welcome you to the 9-th International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing (IMIS 2015), which will be held from July 8-th to July 10-th, 2015, at Regional University of Blumenau (FURB), Blumenau, Brazil in conjunction with the 9-th International Conference on Complex, Intelligent and Software Intensive Systems (CISIS 2015).

This is the 9-th edition of the IMIS International Conference, which is growing every year in quality and quantity. The goal of the conference is to bring together researchers from the different fields related to Ubiquitous and Pervasive Computing (UPC). The IMIS 2015 International Conference is organized in 12 research tracks, which address and cover each main theme of UPC with a specific set of research topics. The program for this conference is the result of hard and excellent work of many people, including authors, external reviewers, program committee members, track chairs, and conference officers. This year, we have selected 38 quality contributions among 157 papers received (about 24% acceptance rate). We believe that all of the papers selected not only provide novel ideas, new results, work in progress, and state-of-the-art techniques in this field, but also stimulate future research activities in the area of UPC.

As PC Co-Chairs, we would like to thank the many people that helped and worked hard to produce a successful IMIS 2015 event this year. We would like to express our sincere appreciation to all of them for their cooperation. Firstly, we would like to thank IMIS 2015 General Co-Chairs Prof. Leonard Barolli, Fukuoka Institute of Technology, Japan and Dr. Ilsun You, Korean Bible University, Korea for bringing together this important event. We are grateful to Honorary Chairs Prof. Makoto Takizawa, Hosei University, Japan and Prof. Joao Natel Pollonio Machado, FURB, Brazil for their advices and support. We would like to give special thanks to all Track Co-Chairs for their time, energy, and expertise to make IMIS 2015 very successful. Also, we thank the Program Committee Members and Reviewers for their hard work and valuable comments that improved the quality of the presented papers. We would like to give special thanks to Dr. Makoto Ikeda and Mr. Tetsuya Oda, Fukuoka Institute of Technology, Japan for their excellent work as Web Administrators. Finally, we would like to thank the Local Arrangement Team of FURB for their support and good local arrangement for the conference.

We hope you will enjoy the conference and hope to see you in forthcoming editions.

#### **IMIS 2015 Program Committee Co-Chairs**

**Francesco Palmieri**, Second University of Naples, Italy

**Helio Dos Santos Silva**, FURB, Brazil

**Hsing-Chung Chen**, Asia University, Taiwan

## Welcome Message from IMIS 2015 Workshops Co-Chairs

Welcome to the Workshops of the 9-th International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing (IMIS 2015), which will be held from July 8-th to July 10-th, 2015, at Regional University of Blumenau (FURB), Blumenau, Brazil in conjunction with the 9-th International Conference on Complex, Intelligent and Software Intensive Systems (CISIS 2015).

This year we have 7 workshops, which will be held together with IMIS 2015. The objective was to complement as much as possible the main themes of IMIS 2015 with the specific topics of the different workshops to cover many topics of Ubiquitous and Pervasive Computing (UPC). The list of workshops follows below:

1. The 9-th International Workshop on Advances in Information Security (WAIS 2015)
2. The 5-th International Workshop on Mobile Commerce, Cloud Computing, Network and Communication Security (MCNCS 2015)
3. The 5-th International Workshop on Intelligent Techniques and Algorithms for Ubiquitous Computing (ITAUC 2015)
4. The 4-th International Workshop on Sustainability Management of e-Business and Ubiquitous Commerce Engineering (SMEUCE 2015)
5. The 4-th International Workshop on Extending Seamlessly to the Internet of Things (esIoT 2015)
6. The 3-rd International Workshop on Practical Security Issues in Public Internet Services (PISPIS 2015)
7. The 1-st International Workshop on Big Data and IoT Security (BDITS 2015)

We would like to thank IMIS 2015 International Conference Organizers for their help and support. We are grateful to the workshop organizers for their great efforts and hard work in proposing the workshops, selecting the papers, organizing interesting programs, and for the arrangements of the workshops during the conference days.

We are grateful to Dr. Makoto Ikeda and Mr. Tetsuya Oda, Fukuoka Institute of Technology, Japan for their excellent work and support as Web Administrators. We would also like to give special thanks to the Local Organization Team of FURB, Blumenau, Brazil

We hope you enjoy the workshops programs and proceedings.

### Workshops Co-Chairs of IMIS 2015 International Conference

**Hae-Duck Joshua Jeong**, *Korean Bible University, Korea*

**Antonio J. Jara**, *University of Applied Sciences Western Switzerland, Switzerland*

## CISIS-2015 & IMIS-2015 Keynote I



**Dr. Olivier Terzo, ISMB Research Center, Italy**

### **Low Power Solutions: Autonomous Collaborative Low Power Computing Systems**

**Abstract:** This talk presents an overview of low power collaborative computing solutions for small scalable mini datacenter. Smart systems and infrastructure are a key challenge for delivering innovation in reliable low power computing systems. Needs of autonomous and adaptive solutions will guarantee challenges on having optimization on energy and computing efficiency.

This talk reports on applied research on the field of Low Power computing solutions in critical context as for example Polar Regions where necessity is on using Low Power computing systems and innovative low power radio-communication capabilities due to low energy constraints.

## CISIS-2015 & IMIS-2015 Keynote II



**Prof. Tomoya Enokido, Risho University, Japan**

### **Green Computing: Issues, Algorithms and Solutions**

**Abstract:** In order to realize scalable, high performance and fault-tolerant distributed applications various types of computing systems like Cloud Computing, Peer-to-Peer (P2P) and Grid Computing systems are developed. For these systems, server cluster systems are widely used to provide applications with scalable, high performance and fault-tolerant services. A server cluster system is composed of a large number of servers where application processes are performed on multiple servers. Application services can be provided by balancing processing load among servers to perform application processes. But, a large amount of electric energy is consumed in a server cluster system since multiple servers consume electric energy to perform application processes. Hence, it is critical to discuss not only the realization of scalable, high performance and fault-tolerant application services, but also the energy-efficient server cluster systems in order to decrease the energy spending which leads to Green Computing.

In this talk, first I will introduce some issues on Green Computing and energy-saving systems. Then based on experimental results, I will present server computation models and power consumption models to perform different types of application processes. After that, I will present the load balancing algorithms to select a server for each type of request process so that the total energy consumption of a server cluster and response time of each process can be reduced. Finally, I will conclude the talk with some lessons learned and will discuss challenges of Green Computing.



## **CISIS-2015 Main Conference and Workshops Program**

**Wednesday, July 8, 2015**

### **08:00 Registration**

**Registration will be taken a place near by plenary room in the morning.  
Registration will be taken a place near by session rooms in the afternoon.**

### **09:00-09:30 Single Session: Opening Ceremony**

### **09:30-10:30 Single Session: CISIS-2015 & IMIS-2015 Keynote I**

**CISIS-2015 & IMIS-2015 Keynote Talk I (PLENARY ROOM)**

**Dr. Olivier Terzo:** Low Power Solutions: Autonomous Collaborative Low Power Computing Systems



**10:30-11:00 Coffee Break****11:00-13:00 Parallel Sessions****CISIS-S1: Automatic Computing Systems and Algorithms - Room 1****Chair: Fatos Xhafa, Technical University of Catalonia, Spain**

1. Trial of an Automatic Schedule for Farming and Crop Prediction  
*Fujii Kojiro, Yukikazu Murakami, Kenji Hato*
2. Knowledge Representation for Event-Driven Metering  
*Mikhail Simonov, Gianfranco Chicco, Gianluca Zanett*
3. Automatic Learning for Supporting Advanced Human-Machine Interfaces  
*Alfredo Cuzzocrea, Enzo Mumolo, Giorgio Mario Grasso*
4. Data Mining to Identify Fraud Suspected on Electronic Elections  
*Yuri Tadeu Poloni, Daniel Formolo*
5. Bending Loss in Two Dimensional Photonic Crystal Waveguide  
*Hiroshi Maeda, Kiyotoshi Yasumoto*
6. Improved Single-Label Text Categorization by Instance Filtration  
*Kashif Ullah Khan, Usman Qamar*

**CISIS-S2: Intelligent and Cloud Computing - Room 2****Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan**

1. A Selection of Actor Node in Wireless Sensor Actor Networks: A Case Study for Static and Mobile Actor Nodes  
*Donald Elmazi, Tetsuya Oda, Elis Kulla, Evjola Spaho, Leonard Barolli, Kazunori Uchida*
2. A Case Study on Developing Cloud of Things Devices  
*Minoru Uehara*
3. A Fuzzy-Based Reliability System for JXTA-overlay P2P Platform Considering Number of Authentic Files, Local Score, Number of Interactions and Security Parameters  
*Yi Liu, Shinji Sakamoto, Keita Matsuo, Leonard Barolli, Makoto Ikeda, Fatos Xhafa*
4. A GA-Based Simulation System for WMNs: Performance Analysis for Different WMN Architectures Considering TCP and OLSR Protocols  
*Admir Barolli, Tetsuya Oda, Leonard Barolli, Fatos Xhafa, Vincenzo Loia, Kazunori Uchida*
5. Real-Time Music Tracking Based on a Weightless Neural Network  
*Diego Fonseca Pereira de Souza, Felipe Maia Galvão França, Priscila Machado Vieira Lima*
6. Container-Based Orchestration in Cloud: State of the Art and Challenges  
*Andrea Tosatto, Pietro Ruiu, Antonio Attanasio*

**FCISIS-S1: Disaster Management - Room 3****Chair: Hélio dos Santos Silva, FURB, Brazil**

1. Prototype of an Expert System for Natural Disasters' Control and Alert  
*Mayra Zanchett Manchein, Marcos Rodrigo Momo Roberto Heinzle*
2. Monitoring and Warning System for Floods of Vale Do Itajaí  
*Hélio dos Santos Silva, Ademar Cordero, Dirceu Luís Severo, Mario Tachini, Júlio Cesar Refosco, Marcos Rodrigo Momo*
3. Mass Balance Calculations of the Organic Solid Wastes Treatment in Anaerobic Reactor  
*Joao Girardi Neto, Joel Dias Da Silva*

4. Organic Computing and Operating Systems: The Big Challenge  
*Mauro Marcelo Mattos*
5. Effect of Temperature on UASB Reactor Performance Treating Textile Sludge  
*Júnia Schultz, Anna Luiza Jensen, Adilson Pinheiro, Joel Dias da Silva*
6. Associated Damage Assessment to Flooding in City Blumenau  
*Tachini, M., Severo, D. L., Cordero, A., Momo, M. R., Silva, H. S.*
7. Public Policies to Reduce Risks of Natural Disasters in Blumenau/SC  
*Rafaela Vieira, Noemia Bohn, Giane Roberta Jansen*

### **13:00-14:30 Lunch Break**

### **14:30-16:30 Parallel Sessions**

#### **CISIS-S3: Multimedia and Web Applications - Room 1**

##### **Chair: Fatos Xhafa, Technical University of Catalonia, Spain**

1. A Systematic Mapping about User Sensitive Information on Social Networks  
*Marcio Geovani Jasinski, Helder Cognaco de Oliveira, Deivid Felipi Sartori, Carla Diacui Medeiros Berkenbrock*
2. Experiences in a Collaborative Space for Learning Digital Systems  
*David Baneres, Santi Caballé*
3. Pattern-Driven Semantic System Integration  
*Cássio Chaves Reginato, Victor Amorim dos Santos*
4. Improving REST Service Discovery with Unsupervised Learning Techniques  
*Juan Manuel Rodriguez, Alejandro Zunino, Cristian Mateos, Felix Oscar Segura, Emmanuel Rodriguez*
5. An RFID-based System for Library Management and Its Performance Evaluation  
*Kiyotaka Fujisaki*

#### **CISIS-S4: Energy Aware Information Systems - Room 2**

##### **Chair: Tomoya Enokido, Rissho University, Japan**

1. Using Grammatical Evolution Techniques to Model the Dynamic Power Consumption of Enterprise Servers  
*Juan Carlos Salinas Hilburg, Marina Zapater Sancho, José Luis Risco Martín, José Manuel Moya Fernández, José Luis Ayala Rodrigo*
2. Energy-Efficient Replication and Migration of Processes in a Cluster  
*Dilawaer Duolikun, Shigenari Nakamura, Tomoya Enokido, Makoto Takizawa*
3. Power Consumption and Computation Models of Virtual Machines to Perform Computation Type Application Processes  
*Tomoya Enokido, Makoto Takizawa*
4. Real-Time Pricing with Demand Response Model for Autonomous Homes  
*Muhammad Awais, Nadeem Javaid, Nusrat Shaheen, Rana Adnan, Naveed A. Khan, Zahoor Ali Khan, Umar Qasim*

**FCISIS-S2: Education, e-Learning and e-Governance Issues - Room 3****Chair: Hélio dos Santos Silva, FURB, Brazil**

1. The Interdisciplinary Education in University Courses in the Information Systems and Computer Sciences: Some Theoretical and Methodological Challenges  
*Adolfo Ramos Lamar, Vilmar Urbaneski*
2. Cyberbullying: Concerns of Teachers and School Involvement  
*Silvana Tambosi, Vanessa Mondini, Gustavo Borges, Maria José Domingues*
3. Education of Leadership in Undergraduate Administration Courses of the State of Santa Catarina  
*Leonir Martins Pereira, Mauricio Capobianco Lopes e Maria José Carvalho de Souza Domingues*
4. The m-Learning Use in Higher Education: A Study in Santa Catarina Universities  
*Adriana Maria Reiter Bachmann, Rosane Volpato e Maria José Domingues*
5. Groundwater Governance in the States of São Paulo, Paraná, Santa Catarina and Rio Grande Do Sul: An Analysis from the Instruments of the National Water Resources Policy  
*Noemia Bohn, Willian Jucelio Goetten*
6. Municipal Basic Sanitation Plans with Emphasis on Wastewater Treatment: A Literature Review  
*Rodrigo Catafesta Francisco, Tiago Cardozo Dalmagro, Joel Dias da Silva, Noemia Bohn*
7. A Bibliometric Study of Scientific Literature on Regional Clusters and Institutions Published in the Portal of Journals of CAPES  
*Leonir Martins Pereira, Mohamed Amal, Mauricio Capobianco Lopes*

**16:30-17:00 Coffee Break****17:00-19:00 Parallel Sessions****CISIS-S5: Optimization, Modeling and Analytics for Complex Systems - Room 1****Chair: Fatos Xhafa, Technical University of Catalonia, Spain**

1. Multi-dimensional Hashing for Fast Network Information Processing in SDN  
*Min Luo, Xiaorong Wu, Yulong Zeng, Jianfei Li, Ke Lin, Bo Man, Wu Chou*
2. Towards an Analytical Framework to Enhance Teaching Support in Digital Systems Design Course  
*David Baneres*
3. A Naming Game with Secondary Memory for Community Detection  
*Thais Gobet Uzun, Carlos Henrique Costa Ribeiro*
4. A Methodology to Evaluate Complex Learning Resources to Improve e-Assessment from Collaborative and Networking Settings  
*Néstor Mora, Santi Caballé, Thanasis Daradoumis*
5. Effective and Efficient Moving Object Segmentation via an Innovative Statistical Approach  
*Alfredo Cuzzocrea, Enzo Mumolo, Alessandro Moro, Kazunori Umeda*
6. A Software Chain Approach to Big Data Stream Processing and Analytics  
*Fatos Xhafa, Victor Naranjo, Santi Caballé, Leonard Barolli*

**CISIS-S6: Cloud Computing Services and Orchestration Tools I - Room 2****Chair: Olivier Terzo, ISMB Research Center, Italy**

1. Building Trust in Cloud: Service Certification Challenges and Approaches  
*Fahad Polash, Sajjan Shiva*

2. Exploiting Semantics and Patterns for Verification of Orchestrated Cloud Services  
*Francesco Moscato*
3. Emerging Models to Improve Storage Management Techniques in Cloud Computing Environments  
*Giuseppe Caragnano, Lorenzo Mossucca*
4. A Cloud Automation Platform for Flexibility in Applications and Resources Provisioning  
*M. Boschetti, Vito.baglio,P. Ruiu, O. Terzo*
5. Automatic Dynamic Allocation of Cloud Storage for Scientific Applications  
*Ruiu P., Caragnano G.,Graglia L.*
6. Novel Data-Distribution Technique for Hadoop in Heterogeneous Cloud Environments  
*Vrushali Ubarhande, Alina-Madalina Popescu, Horacio Gonzalez-Velez*

### **ECDS-S1: Distributed Systems and Applications - Room 3**

**Chair: Makoto Takizawa, Hosei University, Japan**

1. Evaluation of Energy-Aware Server Selection Algorithms  
*Hiroki Kataoka, Dilawaer Duolikun, Tomoya Enokido, Makoto Takizawa*
2. An Ontology to the Information Security Management  
*Jacques Robert Heckmann, Mauro Marcelo Mattos, Paulo Fernando da Silva*
3. Clustering Algorithms in MANETs: A Review  
*Mirjeta Alinci, Evjola Spaho, Argenti Lala, Vladi Kolicic*
4. Real World Emergency Scenario using MANET in Indoor Environment: Experimental Data  
*Elis Kulla, Ryo Ozaki, Akira Uejima, Hideyuki Shimada, Kengo Katayama, Noritaka Nishihara*

**19:00-22:00 Welcome Reception Party**

**Thursday, July 9, 2015****08:00 Registration****09:30-10:30 Single Session: CISIS-2015 & IMIS-2015 Keynote II****CISIS-2015 & IMIS-2015 Keynote Talk II**

**Prof. Tomoya Enokido:** Green Computing: Issues, Algorithms and Solutions

**10:30-11:00 Coffee Break****11:00-13:00 Parallel Sessions****CISIS-S7: Vehicular Networks - Room 1****Chair: Yoshitaka Shibata, Iwate Prefectural University, Japan**

1. Performance Evaluation of Message Suppression Method for DTN Routing Protocols  
*Makoto Ikeda, Seiichiro Ishikawa, Taiki Honda, Leonard Barolli*
2. Routing of Vehicles for Collecting Using Evolutionary Algorithms Case study  
*Claudio Ratke, Cleber Osika, Helcio Hoffmann, Hannelore Nehring*
3. Road-to-Vehicle Communication Using CoMoSE for Road Surface Freezing Information System  
*Go Hirakawa, Phyu Phyu Kywe, Kenta Ito, Yoshitaka Shibata*
4. A Road Condition Sharing System Using Vehicle-to-Vehicle Communication in Various Communication Environment  
*Kenta Ito, Yoshikazu Arai, Go Hirakawa, Yoshitaka Shibata*
5. Routing of Vehicles Using CSP: Case Study  
*Cláudio Ratke, Hélcio Hoffmann, Hannelore Nehring*

**CISIS-S8: Heuristic Algorithms and Smart Systems - Room 2****Chair: Horacio Gonzalez-Velez, National College of Ireland, Ireland**

1. Analysis of WMN-HC Simulation System Data Using Friedman Test  
*Shinji Sakamoto, Algenti Lala, Tetsuya Oda, Vladi Kolic, Leonard Barolli, Fatos Xhafa*
2. Application of PSO for HEMS and ED in Smart Grid  
*Zain Ul Abedin, Uruj Shahid, Anzar Mahmood, Umar Qasim, Zahoor Ali Khan, Nadeem Javaid*
3. On Local vs Population-Based Heuristics for Ground Station Scheduling  
*Algenti Lala, Vladi Kolic, Fatos Xhafa, Xavier Herrero, Admir Barolli*
4. Peak Load Shaving Model Based on Individual's Habit  
*Hifsa Ashraf, Ahmad Hassan, Usman Khurshid, Anzar Mahmood, Nusrat Shaheen, Zahoor Ali Khan, Umar Qasim, Nadeem Javaid*
5. Implementation and Experimental Results of a WMN Testbed in Indoor Environment Considering NLoS Scenario  
*Tetsuya Oda, Admir Barolli, Keita Matsuo, Shinji Sakamoto, Makoto Ikeda, Leonard Barolli*
6. A Flexible Read-Write Abortion Protocol with Sensitivity of Objects to Prevent Illegal Information Flow  
*Shigenari Nakamura, Dilawaer Duolikun, Tomoya Enokido, Makoto Takizawa*

**13:00-14:30 Lunch Break****14:30-16:30 Parallel Sessions****HCCIEA-S1: Hybrid/Cloud Computing Infrastructure for e-Science Application - Room 1****Chair: Olivier Terzo, ISMB Research Center, Italy**

1. Running MPI Applications over an Opportunistic Infrastructure  
*Eliana Alejandra Bohorquez Puentes, Edgar Eduardo Rosales Rosero, Harold Enrique Castro Barrera*
2. Cloud Services for Mapping Flood Areas Susceptible  
*Marcos Rodrigo Momo, Hélio dos Santos Silva, Dirceu Luís Severo, Ademar Cordero, Mario Tachini, Júlio Cesar Refosco*
3. Polar Data Management Based on Cloud Technology  
*Lorenzo Mossucca, Vincenzo Romano, Olivier Terzo, Pietro Ruiu, Luca Spogli, Alberto Salvati, Claudio Rafanelli*
4. Evaluating Scalability of a Cloud Based Platform for Biological Networks Analysis  
*Fabrizio Bertone, Giuseppe Caragnano, Pietro Ruiu, Olivier Terzo, Alessandro Vasciaveo, Alfredo Benso*
5. Performance Analysis of the DInSAR P-SBAS Algorithm within AWS Cloud  
*Lorenzo Mossucca, Ivana Zinno, Stefano Elefante, De Claudio Luca, Klodiana Goga, Olivier Terzo, Francesco Casu, Riccardo Lanari*

**ADiS-S1: Autonomic Distributed Systems - Room 2****Chair: Ciprian Dobre, University Politehnica of Bucharest, Romania**

1. Autonomous Systems for Telemedicine  
*Cornel Popescu*
2. Error Monitoring for Mobile Operating Systems  
*Costin Carabas, Irina-Ioana Patru, Mihai Carabas, Laura Gheorghe, Nicolae Tapus*
3. ArcGIS Based Visualization Tool for Assessment of Earthquakes Impact  
*Tănase Gula, Cristina Grosu, Diana Nănuti, Mariana Mocanu, Sorin N. Ciolofan*
4. Cloud Computing for Extracting Price Knowledge from Big Data  
*George Suci, Ciprian Dobre, Victor Suci, Gyorgy Todoran, Alexandru Vulpe, Anca Apostu*

**ICLS-S1: Intelligent Computing at Large Scale - Room 3****Chair: Fatos Xhafa, Technical University of Catalonia, Spain**

1. Using Semantic Negotiation for Ontology Enrichment in E-Learning Multi-agent Systems  
*Antonello Comi, Lidia Fotia, Fabrizio Messina, Giuseppe Pappalardo, Domenico Rosaci, Giuseppe M.L. Sarné*
2. Supporting Knowledge Sharing in Heterogeneous Social Network Thematic Groups  
*Antonello Comi, Lidia Fotia, Fabrizio Messina, Giuseppe Pappalardo, Domenico Rosaci, Giuseppe M.L. Sarné*
3. A Data Storage Approach for Large-Scale Distributed Medical Systems  
*Douglas D. J. de Macedo, Aldo von Wangenheim, Mario A. R. Dantas*
4. Sharing Privacy Information in Credit Analysis Environment  
*Marcelo Luiz Brocardo, Ricardo Felipe Custodio, Carlos Roberto De Rolt, Julio da Silva Dias, Issa Traore*

**16:30-17:00 Coffee Break****17:00-19:00 Parallel Sessions**

**ePaMus-S1: Engineering Parallel and Multi-Core Systems - Room 1****Chair: Fatos Xhafa, Technical University of Catalonia, Spain**

1. Parallel A-star Multiple Sequence Alignment with Locality-Sensitive Hash Functions  
*Daniel Sundfeld, George Teodoro, Alba Cristina M. A. de Melo*
2. Tool-Based Mobile Application Applied to the Monitoring System and Flood Alert  
*Diogo de Souza Junior, Iago Freitas Cardoso, Marcos Rodrigo Momo*
3. System Based on Cloud Computing for Hydrological Data Analysis Using Statistical Calculations  
*Wagner Correia, Pedro Sidnei Zanchett, Emerson Amorim, Janilson Lotério*
4. Performance Analysis of LXC for HPC Environments  
*David Beserra, Jimmy Barreto, Patricia Takako Endo, Edward David Moreno Ordonez, Stênio Fernandes, Djamel Sadok*
5. A Modular Multicore Architecture in FPGAs for Embedded Critical Applications  
*Edward David Moreno, Fabio Dacencio Pereira*
6. Intensity Use of Social Networks in Southern Brazil  
*Rafaele Matte Wojahn, Aline Louise de Oliveira, Maria José Carvalho de Souza Domingues*

**SWISM-S1: Information Discovery and Cloud Computing - Room 2****Chair: Beniamino Di Martino, Second University of Naples, Italy**

1. A Lexicon-Grammar Based Methodology for Ontology Population for E-Health Applications  
*Flora Amato, Aniello De Santo, Vincenzo Moscato, Antonio Picariello, Domenico Serpico, Giancarlo Sperli*
2. A Negotiation Solution for Smart Grid Using a Fully Decentralized, P2P Approach  
*Alba Amato, Beniamino Di Martino, Marco Scialdone, Salvatore Venticinque*
3. An Agent-Based Platform for Cloud Applications Performance Monitoring  
*Rocco Aversa, Nicola Panza, Luca Tasquier*
4. Defining Cloud Services Workflow: A Comparison between TOSCA and OpenStack Hot  
*Beniamino Di Martino, Giuseppina Cretella, Antonio Esposito*
5. Automatic Monitor Generation for Cloud Services  
*Francesco Moscato, Davide Di Domenico*

**IINIC-S1: Intelligent Informatics and Natural Inspired Computing - Room 3****Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan**

1. High Perception Intrusion Detection System Using Neural Networks  
*Gaby H Abou Haidar, Charbel T Boustany*
2. Make It Feel: Use of Facial Imaging Technique to Analyze the Impact of Each Emotional Spot on Ad Success  
*Preeti Saraswat, Harish Nagar, Sarika Khandelwal*
3. Exclusive Genomic Pathway Analysis for Groupers Infected by Different Iridovirus  
*Chun-Cheng Liu, Chien-Ming Chen, Tun-Wen Pai, Hsin-Yiu Chou, Hui-Huang Hsu*
4. Analysis of Node Placement in Wireless Mesh Networks Using Friedman Test: A Comparison Study for Genetic Algorithms and Hill Climbing  
*Donald Elmazi, Tetsuya Oda, Algenti Lala, Vladi Kolicic, Leonard Barolli, Fatos Xhafa*

**19:00-22:00 Banquet Party**

**Friday, July 10, 2015**

**CISIS-2015 Organizing Committee Meeting and Discussion**





# **IMIS-2015**

## **Main Conference and Workshops Program**

**Wednesday, July 8, 2015**

### **08:00 Registration**

Registration will be taken a place near by plenary room in the morning.  
Registration will be taken a place near by session rooms in the afternoon.

### **09:00-09:30 Single Session: Opening Ceremony**

### **09:30-10:30 Single Session: CISIS-2015 & IMIS-2015 Keynote I**

**CISIS-2015 & IMIS-2015 Keynote Talk I (PLENARY ROOM)**

**Dr. Olivier Terzo:** Low Power Solutions: Autonomous Collaborative Low Power Computing Systems

**10:30-11:00 Coffee Break****11:00-13:00 Parallel Sessions****IMIS-S1: MANETs and VANETs - Room 4****Chair: Noriki Uchida, Fukuoka Institute of Technology, Japan**

1. Performance Evaluation of Reactive Routing Protocols for VANETs in Urban Scenarios Following Good Simulation Practices  
*J.M. García-Campos, D. G. Reina, S. L. Toral, N. Bessis, F. Barrero, E. Asimakopoulou, R. Hill*
2. Experimental Results of a CentOS-based Ad-Hoc Network Testbed Considering LoS Scenario  
*Tetsuya Oda, Yi Liu, Keita Matsuo, Shinji Sakamoto, Makoto Ikeda, Leonard Barolli*
3. Performance Evaluation of AODV, OLSR and HWMP Protocols in Ad-Hoc Networks and MANET Scenarios  
*Keita Matsuo, Tetsuya Oda, Donald Elmazi, Shinji Sakamoto, Leonard Barolli*
4. Performance Evaluation of a VANET Simulation System Using NS-3 and SUMO Considering Number of Vehicles and Crossroad Scenario  
*Vladi Kolici, Tetsuya Oda, Yuki Sugihara, Evjola Spaho, Makoto Ikeda, Leonard Barolli*
5. IEEE802.11 based Vehicle-to-Vehicle Delay Tolerant Networks for Road Surveillance System in Local Areas  
*Noriki Uchida, Go Hirakawa, Tomoyuki Ishida, Yoshikazu Arai, Yoshitaka Shibata*

**IMIS-S2: Multimedia and Medical Applications - Room 5****Chair: Makoto Takizawa, Hosei University, Japan**

1. A Visual Analytics Approach for E-learning Education  
*Xuehui Zhang, Xin Liu*
2. An Enhanced Java-based Mobile Device Theft Response System  
*Yongwoo Kwon, Inhyeok Jeon, WooSeok Hyun, Jiyoung Lim, Ilsun You, Hae-Duck J. Jeong*
3. Evaluation of Power Consumption for Smart Devices in Web Applications  
*Ken Nishimura, Kaoru Sugita*
4. Hybrid Recommendation Base on Learning to Rank  
*Xinhuai Tang, Feilong Tang*
5. Mobile Application to Support Community Health Workers using GeneXus Smart Devices  
*Mauro Marcelo Mattos, Simone Erbs da Costa, Luciana Pereira de Araújo, Shaiane Mafra Casa, Eric Boeing*
6. Monitoring Patients with Mental Disorders  
*Philip Moore, Andrew Thomas, Tarik Qassem, Nik Bessis, Bin Hu*

**PISPIS-S1: Security Issues in Public Internet Services - Room 6****Chair: Kangbin Yim, Soonchunhyang University, Korea**

1. Soliciting Unexpected Traffic Flows into VoLTE  
*Junyoung Park, Taeyoung Jung, Jaein Kim, Kangbin Yim*
2. Precise Exposure Control for Efficient Eye Tracking  
*Junghoon Park, Taeyoung Jung, Kangbin Yim*
3. The Behavior-Based Analysis Techniques for HTML5 Malicious features  
*SangHwan Oh, JongHun Jung, HwanKuk Kim*

**13:00-14:30 Lunch Break****14:30-16:30 Parallel Sessions****IMIS-S3: Wireless Networks - Room 4****Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan**

1. Bio-Inspired Routing in Wireless Sensor Networks  
*Hamza Fahim, Nadeem Javaid, Zahoor Ali Khan, Umar Qasim, Shumaila Javed, Amir Hayat, Zafar Iqbal, Ghazanfar Rehman*
2. Interference and Bandwidth Aware Depth Based Routing Protocols in Underwater WSNs  
*Hamza Fahim, Nadeem Javaid, Umar Qasim, Zahoor Ali Khan, Shumaila Javed, Amir Hayat, Zafar Iqbal, Ghazanfar Rehman*
3. Multilevel Routing Protocol for Energy Optimization in Wireless Sensor Networks  
*Hamza Fahim, Nadeem Javaid, Zahoor Ali Khan, Umar Qasim, Shumaila Javed, Danish Mahmood, Zafar Iqbal*
4. A Multi-node Renewable Algorithm Based on Charging Range in Large-scale Wireless Sensor Network  
*Wu Guowei, Chi Lin, Ying Li, Lin Yao, Ailun Chen*
5. Reliable Voice-based Transactions over VoIP Communications  
*Giuseppe Cattaneo, Luigi Catuogno, Fabio Petagna, Gianluca Roscigno*
6. Trustworthiness-based Broadcast Protocols in Wireless Networks  
*Miyu Sugino, Shigenari Nakamura, Tomoya Enokido, Makoto Takizawa*

**IMIS-S4: Location and Context-Aware Computing - Room 5****Chair: Hae-Duck Joshua Jeong, Korean Bible University, Korea**

1. Analysis of Node Placement in Wireless Mesh Networks Using Friedman Test: A Comparison Study for Tabu Search and Hill Climbing  
*Tetsuya Oda, Donald Elmazi, Argenti Lala, Vladi Kolic, Leonard Barolli, Fatos Xhafa*
2. Proposal of the Digital Contents Management System utilizing the AR Technology  
*Tsubasa Ando, Tomoyuki Ishida, Noriki Uchida, Yoshitaka Shibata*
3. Supporting First Responders Localization During Crisis Management  
*Massimo Ficco, Francesco Palmieri, Aniello Castiglione*
4. Impact of Location of Road-side Units Considering Message Suppression Method for Vehicular-DTN  
*Makoto Ikeda, Seiichiro Ishikawa, Taiki Honda, Leonard Barolli*
5. An Adaptive Routing Protocol Based on Fixed Hubs for Opportunistic Networks  
*Hewerton Enes de Oliveira, João Paulo de Araujo, Tales Heimfarth, João Carlos Giacomin*

**PISPIS-S2: Privacy and Social Issues in Public Internet Services - Room 6****Chair: Kangbin Yim, Soonchunhyang University, Korea**

1. NTFS Directory Index Analysis for Computer Forensics  
*Gyu-Sang Cho*
2. Simplified 3D Hologram Heart Activity Monitoring using a Smartphone  
*Tharoeun Thap, Yunyoung Nam, Hee-won Chung, Jinseok Lee*
3. Analysis of Statistical Methods for Automatic Detection of Congestive Heart Failure and Atrial Fibrillation with Short RR Interval Time Series  
*Kwon Ha Yoon, Tharoeun Thap, Chang Won Jeong, Nam Ho Kim, Seung Noh, Yunyoung Nam*
4. A Real-time Sleep Monitoring System with a Smartphone  
*Tae-yang Han, Se-Dong Min, Yunyoung Nam*

**16:30-17:00 Coffee Break****17:00-19:00 Parallel Sessions****IMIS-S5: Intelligent Computing - Room 4****Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan**

1. Application of Hidden Markov Models and Gesture Description Language classifiers to Oyama karate techniques recognition  
*Tomasz Hachaj, Marek R. Ogiela, Katarzyna Koptyra*
2. Efficiency of Cognitive Information Systems Supporting Enterprise Management Tasks  
*Lidia Ogiela, Marek R. Ogiela*
3. Friedman Test for Analysing WMNs: A Comparison Study for Genetic Algorithms and Simulated Annealing  
*Donald Elmazi, Tetsuya Oda, Shinji Sakamoto, Evjola Spaho, Leonard Barolli, Fatos Xhafa*
4. Biometric Methods for Advanced Strategic Data Sharing Protocols  
*Marek R. Ogiela, Lidia Ogiela, Urszula Ogiela*
5. Knowledge-Based Framework for the Virtual Communication of Public Art  
*Vincenzo Lombardo, Rossana Damiano, Antonio Lieto*

**IMIS-S6: Security, Trust and Privacy - Room 5****Chair: Luigi Catuogno, Università degli Studi di Salerno, Italy**

1. Estimating Software System Reliability: An Architecture-Based Approach  
*Xiwen Wu, Linpeng Huang, Chen Li, Luxi Chen*
2. Ensuring Application Integrity: A Survey on Techniques and Tools  
*Luigi Catuogno, Clemente Galdi*
3. Secure Authentication for Structured Smart Grid System  
*Inshil Doh, Jiyoung Lim, Kijoon Chae*
4. The Dark Side of the Interconnection: Security and Privacy in the Web of Things  
*Luigi Catuogno, Stefano Turchi*
5. Compromising Ad-hoc Networks by Attacking Weakly Connected Dominating Set  
*Chi Lin, Guowei Wu, Kangbin Yim, Lin Yao, Gang Hou*
6. Vulnerability Analysis on the CNG Crypto Library  
*Kyungroul Lee, Ilsun You, Kangbin Yim*

**MCNCS-S1: Security, Wireless Sensor network and E-Commerce - Room 6****Chair: Fang-Yie Leu, TungHai University, Taiwan**

1. An AP Selection with RSS Standard Deviation for Indoor Positioning in Wi-Fi  
*Fong-Mao Jhuang, Chi-Fu Hung, Chiu-Ching Tuan, Yi-Chao Wu, Fang-Yie Leu*
2. Applying Web Crawlers to Develop a Sale Management System for Online Malls  
*Yu-Jen Chang, Fang-Yie Leu, Shih-Chieh Chen, Hei-Lam Wong*
3. A Security Threats Measurement model for Reducing Cloud Computing Security Risk  
*Sen-Tarng Lai*
4. Constructing Military Smartphone Usage Criterion of Cloud-DEFSOP for Mobile Security  
*Tien-Sheng Lin, I-Long Lin, Fang-Yie Leu*

**19:00-22:00 Welcome Reception Party****Thursday, July 9, 2015****08:00 Registration****09:30-10:30 Single Session: CISIS-2015 & IMIS-2015 Keynote II****CISIS-2015 & IMIS-2015 Keynote Talk II****Prof. Tomoya Enokido:** Green Computing: Issues, Algorithms and Solutions**10:30-11:00 Coffee Break****11:00-13:00 Parallel Sessions****ITAUC-S1: Intelligent Techniques and Algorithms for Ubiquitous Computing - Room 3****Chair: Hsing-Chung Chen, ASIA University, Taiwan**

1. Context-aware Applications in Mobile Sink of Wireless Sensor Networks  
*Chia-Hsin Cheng, Yeong-Long Shiue, Wei-Chia Lo, Hsing-Chung Chen*
2. The Impact of Use of Information Technology Teaching for Kindergarten Education  
*Yen-Tsung Lin, Hsing-Chung Chun, Shu-Hui Chuang*
3. Double K-Folds in SVM  
*Fengming Chang, Hsing-Chung Chen, Hsiang-Chuan Liu*
4. A New Uighur Automatic Summarization Method  
*Xiaodong Yan*
5. A Patient-Driven Mobile Medical Information System Applying to Physician Clinical Care  
*Ching-Kan Lo, Ye-Chi Wu, Cheng-Hung Chuang, Hsing-Chung Chen*
6. A Mobile Nursing App Applying to the Wound Care and Drug Administration of Patients  
*Ching-Kan Lo, Sin-Sen Chang, Cheng-Hung Chuang, Hsing-Chung Chen*

**IMIS-S7: Cloud Computing and P2P - Room 4****Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan**

1. Towards Energy Efficient Scheduling for Online Tasks in Cloud Data Centers based on DVFS  
*Weicheng Huai, Wei Huang, Shi Jin, Zhuzhong Qian*
2. Multi-tenants Data Duplication Secure Storage in SaaS  
*Lin Li, Yilei Wang, Yanhui Ding, Yongxin Zhang*
3. Optimal Cloud Broker Method for Cloud Selection in Mobile Inter-Cloud Computing  
*Isaac Woungang, Alagan Anpalagan, Leonard Barolli, Makoto Takizawa*
4. A Fuzzy-based Reliability System for JXTA-Overlay P2P Platform Considering Number of Interaction, Security, Packet Loss and Local Score Parameters  
*Yi Liu, Shinji Sakamoto, Keita Matsuo, Leonard Barolli, Makoto Ikeda, Fatos Xhafa*
5. Synchronization of Peers in Peer-to-peer Publish/Subscribe Systems  
*Hiroki Nakayama, Dilawaer Duolikun, Tomoya Enokido, Makoto Takizawa*

**esIoT-S1: Networking, Security and IPv6 for the IoT - Room 5****Chair: Antonio J. Jara, HES-SO, Switzerland**

1. SecC: Authentication and Access Control Mechanism for Secure Cloud Based Transportation Services  
*Irish Singh, K. N. Mishra, Dhananjay Singh, Antonio Alberti, Antonio Jara*
2. JSON Sensor Signatures (JSS): End-to-End Integrity Protection from Constrained Device to IoT Application  
*Henrich C. Pöhls*
3. Certificateless and Privacy-enhancing Group Sharing Mechanism for the Future Internet  
*José L. Hernández Ramos, Jorge Bernal Bernabe, Salvador Perez Franco, Antonio F. Skarmeta*
4. Towards a Human Centric Intelligent Society  
*Ian Thoma, Lou Fedon, Antonio Jara, Yann bocchi*

**BDITS-S1: Network Resource Management and Intrusion Detection - Room 6****Chair: Hsing-Chung Chen, ASIA University, Taiwan**

1. Research on the Collaborative Analysis Technology for Source Code and Binary Executable Based upon the Unified Defect Mode Set  
*Xiaobing Liang, Baojiang Cui, Yingjie Lv, Yilun Fu*
2. Passive Storage Based Wireless Network resource management for 4G LTE  
*Ran Tao, Wen'an Zhou, Xuhui Yang, Guanglin Han*
3. A New Framework of Security Vulnerabilities Detection in PHP Web Application  
*Zhao Jingling, Gong Rulin*
4. Multi-Layer Anomaly Detection for Internet Traffic Based on Data Mining  
*Baojiang Cui, Shanshan He, Haifeng Jin*

**13:00-14:30 Lunch Break****14:30-16:30 Parallel Sessions****SMEUCE-S1: Sustainability Management of e-Business and Information Management - Room 4****Chair: Hsing-Chung Chen, ASIA University, Taiwan**

1. A Case Study of Valuation and Value Drivers in the Edible Oil and Fats Industry: TTET Union Corporation  
*Kuei-Yuan Wang, Shu-E Chung*
2. Professional Network Structure and Relationship Quality Effects on Member Knowledge Acquisition, Well-being, and Performance  
*Mei Hua Huang*
3. Examining the Direct and Moderating Effects of Relational Exchange and Innovation Characteristics on New Product Adoption  
*Mei Hua Huang*
4. How to Enhance Market Value? A Balanced Scorecard Perspective  
*Ying-Li Lin*
5. How Do Political Relations Affect State-Owned Bank Loans?  
*Ying-Li Lin*

**esIoT-S2: Adaptive IoT - Room 5****Chair: Antonio J. Jara, HES-SO, Switzerland**

1. Service Platform for Automated IoT Service Provisioning  
*Timo Niemirepo, Markus Sihvonon, Vesa Jordan, Juhani Heinilä*
2. Big Data Processing of Bio-signal Sensors Information for Self-management of Health and Diseases  
*Diego Gachet Pérez, Manuel de Buenaga, Enrique Puertas, María Villalva*
3. A Semantic Engine for Internet of Things: Cloud, Mobile Devices and Gateways  
*Amelie Gyrard, Soumya Kanti Datta, Christian Bonnet, Karima Boudaoud*
4. SDN Based Architecture for Clustered WSN  
*Flauzac Olivier, Gonzalez Carlos, Nolot Florent*
5. Dynamic Transmission Mode Selection and Resource Sharing Schemes for M2M Communications in Cellular Networks  
*Luan Xi, Wu Jianjun, Cheng Yuxin, Xiang Haige*

**BDITS-S2: Big Data, Cloud Computing and Security - Room 6****Chair: Hsing-Chung Chen, ASIA University, Taiwan**

1. Security Analysis of Openstack Keystone  
*Baojiang Cui, Tao Xi*
2. A Secure Architecture for Data Storage in the Cloud Environments  
*Chuan Fu, Jun Yang, Zheli Liu, Chunfu Jia*
3. A Dynamic Self-Adaptive Algorithm for Uploading Deferrable Big Data to The Cloud Cost-Effectively  
*Baojiang Cui, Peilin Shi, Haifeng Jin*
4. Research on the Performance of Mining Online Education Packets for Malware Detection between PM and VM  
*Jun Yang, Jiangdong Deng, Baojiang Cui, Haifeng Jin*

**16:30-17:00 Coffee Break****17:00-19:00 Parallel Sessions****SMEUCE-S2: Ubiquitous Commerce Engineering and Operation Management - Room 4****Chair: Hsing-Chung Chen, ASIA University, Taiwan**

1. The Relationship of Companies Social Connection and SEOs  
*Mei-Hua Liao, Li-Wen Chen, Saburo Horimoto*
2. Study of e-business strategy in Japanese Family Business and Long-Established Companies  
*Hidekazu Sone, Mei-Hua Liao*
3. An Exploratory Study on Mongolian Women Consumer Behavior toward Purchasing Luxury Fashion Brands  
*Ya-Wen Yu, Shao-Chun Chiu, Chen-Yu Chen, Bolortuya Odser*
4. Explore the Development of Social Enterprises in Taiwan from the Dynamic Capabilities Approach  
*Yen-Tsung Lin, Hsing-Chung Chun, Shu-Hui Chuang*

**WAIS-S1: Privacy and Security - Room 5****Chair: Hiroaki Kikuchi, Meiji University, Japan**

1. Consideration of the XOR-operation based Secure Multiparty Computation  
*Yuji Suga*
2. Automated Detection of Drive-by Download Attack  
*Hiroaki Kikuchi, Hiroaki Matsumoto, Hiroshi Ishii*
3. General Construction for the Resources Information Library of Shaanxi Folk Culture and Art  
*Shuhua Zhang, Changsong Yang, Tao Jiang*
4. A Survey of Hardware Features in Modern Browsers: 2015 Edition  
*Ko Takasu, Takamichi Saito, Tomotaka Yamada, Takayuki Ishikawa*
5. Study on Diffusion of Protection/Mitigation against Memory Corruption Attack in Linux Distributions  
*Takamichi Saito, Hiroyuki Miyazaki, Takaaki Baba, Yoshifumi Sumida, Yosuke Hori*

**esIoT-S3: IoT Solutions - Room 6****Chair: Antonio J. Jara, HES-SO, Switzerland**

1. Solar Production Prediction Based on Non Linear Meteo Source Adaptation  
*Mariam Barque, Luc Dufour, Dominique Genoud, Arnaud Zufferey, Bruno Ladevie, Jean-Jacques Beziau*
2. Scalable Approaches to Integration in Heterogeneous IoT and M2M Scenarios  
*Alex Carmine Olivieri, Gialuca Rizzo*
3. Using 5G technologies in the Internet of Things Handovers, problems and challenges  
*Borja Bordel Sánchez, Álvaro Sánchez-Picot, Diego Sánchez De Rivera*
4. Experiences with RFID technology to manage information during natural disasters  
*Miguel A. Wister, Pablo Pancardo, Francisco D. Acosta, J. A. Hernández-Nolasco, Eddy Sánchez-Delacruz*

**19:00-22:00 Banquet Party**



**Friday, July 10, 2015**

**IMIS-2015 Organizing Committee Meeting and Discussion**