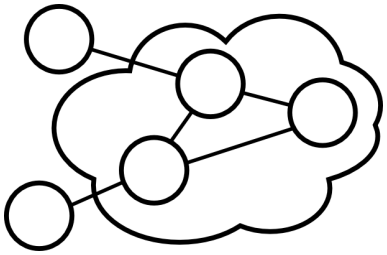
PROGRAM GUIDE

BWCCA-2017

The 12-th International Conference on
Broad-Band and Wireless Computing, Communication and Applications

and



3PGCIC-2017

The 12-th International Conference on
P2P, Parallel, Grid, Cloud and Internet Computing

November 8^{th} - November 10^{th}, 2017
Palau Macaya, Barcelona, Spain

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Welcome Message from the BWCCA-2017 International Conference Organizers

Welcome to the 12-th IEEE International Conference on Broadband and Wireless Computing, Communication and Applications (BWCCA-2017), which will be held in conjunction with the 12-th 3PGCIC-2017 International Conference from November 8 to November 10, 2017 in Barcelona, Spain.

This International Conference is a forum for sharing ideas and research work in the emerging areas of broadband and wireless computing. Information networking is going through a rapid evolution. Different kinds of networks with different characteristics are emerging and they are integrating in heterogeneous networks. For these reasons, there are many interconnection problems which may occur at different levels of the hardware and software design of communicating entities and communication networks. These kinds of networks need to manage an increasing usage demand, provide support for a significant number of services, guarantee their QoS, and optimize the network resources.

The success of all-IP networking and wireless technology has changed the ways of living the people around the world. The progress of electronic integration and wireless communications is going to pave the way to offer people the access to the wireless networks on the fly, based on which all electronic devices will be able to exchange the information with each other in ubiquitous way whenever necessary.

The aim of this conference is to present the innovative research and technologies as well as developments related to broadband networking, and mobile and wireless communications. This edition BWCCA-2017 received 184 paper submissions and based on review results, we accepted 48 papers (about 26% acceptance ratio) for presentation in the conference and publication in the Springer Lecture Notes on Data Engineering and Communication Technologies Proceedings.

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 BWCCA-2017 technical program and conference proceedings. First, we would like to thank all authors for submitting their papers, Program Committee Members and reviewers who carried out the most difficult work by carefully evaluating the submitted papers.

This year in conjunction with BWCCA-2017 we have 5 International Workshops that complemented BWCCA-2017 program with contributions for specific topics. We would like to thank the Workshop Co-Chairs and all workshops organizers for organizing these workshops.

We thank Shinji Sakamoto, Donald Elmazi, Yi Liu and Miralda Cuka, Fukuoka Institute of Technology (FIT), Japan, as Web Administrator Co-Chairs and Dr. Makoto Ikeda, FIT, Japan, as Finance Chair for their excellent work.

We would like to express our gratitude to Prof. Makoto Takizawa, Hosei University, Japan and Marta Aymerich, Open University of Catalonia, Spain as Honorary Co-Chairs of BWCCA-2017 for their support and help.

We give special thanks to Prof. Isaac Woungang, Ryerson University, Canada, Dr. Zahoor Ali Khan, Higher Colleges of Technology, United Arab Emirates, and Prof. Deborah Richards, Macquarie University, Australia for kindly accepting to be Keynote Speakers of BWCCA-2017. Finally, we would like to thank the Local Arrangement Team for making excellent local arrangement for the conference.

We hope you will enjoy the conference and have a great time in Barcelona, Spain.

BWCCA-2017 International Conference Organizers

BWCCA-2017 General Co-Chairs

Santi Caballe, *Open University of Catalonia, Spain*
Leonard Barolli, *Fukuoka Institute of Technology, Japan*

BWCCA-2017 Program Committee Co-Chairs

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Tomoya Enokido, *Rissho University, Japan*
Lidia Ogiela, *AGH University of Science and Technology, Poland*

Welcome Message from BWCCA-2017 Workshops Co-Chairs

Welcome to the Workshops of the 12-th IEEE International Conference on Broadband and Wireless Computing, Communication and Applications (BWCCA-2017), which will be held in conjunction with the 12-th 3PGCIC-2017 International Conference from November 8 to November 10, 2017 in Barcelona, Spain.

This year 5 workshops will be held in conjunction with BWCCA-2017 International Conference. The workshops are very important part of the main conference and they cover specific topics related to next generation networks, network traffic analysis, sensor technologies, smart environments, complex systems, wireless communication, mobile networks and multimedia networking.

BWCCA-2017 workshops are listed in following:

1. The 19-th International Symposium on Multimedia Network Systems and Applications (MNSA-2017)
2. The 10-th International Workshop on Next Generation of Wireless and Mobile Networks (NGWMN-2017)
3. The 8-th International Workshop on Methods, Analysis and Protocols for Wireless Communication (MAPWC-2017)
4. The 8-th International Workshop on Cloud, Wireless and e-Commerce Security (CWECS-2017)
5. The 6-th International Workshop on Robot Interaction, Control, Communication and Cooperation (RI3C-2017)

These workshops bring to the researchers conducting research in specific themes the opportunity to learn from this rich multi-disciplinary experience.

The Workshop Chairs would like to thank the workshop organizers for their great efforts and hard work in proposing the workshop, selecting the papers, the interesting programs and for the arrangements of the workshop during the conference days.

We hope you enjoy the workshops programs and proceedings.

BWCCA 2017 Workshop Co-Chairs

Xavier Vilajosana, *Open University of Catalonia, Spain*
Elis Kulla, *Okayama University of Science, Japan*
Xiaofeng Chen, *Xidian University, China*

3PGCIC-2017 Conference Organizing Committee

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Felisa Cabeza, *Open University of Catalonia, Spain*
David Gañán, *Open University of Catalonia, Spain*

Message from the 3PGCIC-2017 Organizing Committee

Welcome to the 12th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC-2017), which will be held in conjunction with BWCCA-2017 International Conference, November 8-10, 2017, at Open University of Catalonia, Barcelona, Spain.

P2P, Grid, Cloud and Internet computing technologies have been established as breakthrough paradigms for solving complex problems by enabling large-scale aggregation and sharing of computational, data and other geographically distributed computational resources.

Grid Computing originated as a paradigm for high performance computing, as an alternative to expensive supercomputers. Since late 80's, Grid computing domain has been extended to embrace different forms of computing, including Semantic and Service-oriented Grid, Pervasive Grid, Data Grid, Enterprise Grid, Autonomic Grid, Knowledge and Economy Grid, etc.

P2P Computing appeared as the new paradigm after client-server and web-based computing. These systems are evolving beyond file sharing towards a platform for large scale distributed applications. P2P systems have as well inspired the emergence and development of social networking, B2B (Business to Business), B2C (Business to Consumer), B2G (Business to Government), B2E (Business to Employee), and so on.

Cloud Computing has been defined as a "computing paradigm where the boundaries of computing are determined by economic rationale rather than technical limits". Cloud computing is a multi-purpose paradigm that enables efficient management of data centres, timesharing, and virtualization of resources with a special emphasis on business model. Cloud Computing has fast become the computing paradigm with applications in all application domains and providing utility computing at large scale.

Finally, Internet Computing is the basis of any large-scale distributed computing paradigms; it has very fast developed into a vast area of flourishing field with enormous impact on today's information societies. Internet-based computing serves thus as a universal platform comprising a large variety of computing forms.

The aim of the 3PGCIC conference is to provide a research forum for presenting innovative research results, methods and development techniques from both theoretical and practical perspectives related to P2P, Grid, Cloud and Internet computing.

Based on the reviewers' reports, the Program Committee selected 38 papers (30% acceptance rate) for presentation in the conference and publication in the Springer Lecture Notes on Data Engineering and Communication Technologies Proceedings.

Many people have helped and worked hard to produce a successful 3PGCIC-2017 technical program and conference proceedings. First, we would like to thank all the authors for submitting their papers, the PC members, and the reviewers who carried out the most difficult work by carefully evaluating the submitted papers.

The General Chairs of the conference would like to thank the PC Co-Chairs Jordi Conesa, Open University of Catalonia, Spain, Nicola Capuano, University of Salerno, Italy and Xu An Wang, CAPF University, China for their great efforts in organizing a successful conference and an interesting conference programme. We would like to appreciate the work of the Workshop Co-Chairs Pere Tuset, Open University of Catalonia, Spain, Flora Amato, University of Naples, Italy and Tomoki Yoshihisa, Osaka University, Japan for supporting the workshop organizers. Our appreciations also go to all workshops organizers for their hard work in successfully organizing these workshops.

We thank Shinji Sakamoto, Donald Elmazi and Yi Liu, FIT, Japan, for their excellent work and support with the Web Submission and Management System of conference.

We are grateful to Prof. Marta Aymerich, Open University of Catalonia, Spain and Prof. Makoto Takizawa, Hosei University, Japan, Honorary Co-Chairs for their support and encouragment.

Our special thanks to Isaac Woungang, Ryerson University, Canada, Zahoor Khan, Higher Colleges of Technology, United Arab Emirates and Deborah Richards, Macquarie Universityfor delivering an inspiring keynotes at the conference.

Finally, we would like to thank the Local Arrangement at Open University of Catalonia, for making excellent local arrangement for the conference.

We hope you will enjoy the conference and have a great time in Barcelona, Spain!

3PGCIC-2017 Organizing Committee

3PGCIC-2017 General Co-Chairs

Santi Caballé, *Open University of Catalonia, Spain*
Leonard Barolli, *Fukuoka Institute of Technology, Japan*

3PGCIC-2017 Program Committee Co-Chairs

Jordi Conesa, *Open University of Catalonia, Spain*
Nicola Capuano, *University of Salerno, Italy*
Xu An Wang, *CAPF University, China*

Message from the 3PGCIC Workshops Chairs

Welcome to the Workshops of the 12th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC 2017), held November 8-10, 2017, Open University of Catalonia, Barcelona, Spain. The objective of the workshops was to present research results, work on progress and thus complement the main themes of 3PGCIC 2017 with specific topics of Grid, P2P, Cloud and Internet Computing.

The workshops cover research on Simulation and Modelling of Emergent Computational Systems, Multimedia, Web, Streaming Media Delivery, Middleware of Large Scale Distributed Systems, Network Convergence, Pervasive Computing and Distributed Systems and Security.

The 3PGCIC-2017 workshops are as following:

1. The 10th International Workshop on Simulation and Modelling of Emergent Computational Systems (SMECS-2017)
2. The 8th InternationalWorkshop on Streaming Media Delivery and Management Systems (SMDMS-2017)
3. The 7th International Workshop on Multimedia, Web and Virtual Reality Technologies and Applications (MWVRTA-2017)
4. The 7th International Workshop on Adaptive Learning via Interactive, Cognitive and Emotional approaches (ALICE-2017)
5. The 5th International Workshop on Cloud and Distributed System Applications (CADSA-2017)
6. The 4th International Workshop on Distributed Embedded Systems (DEM-2017)
7. The 3rd International Workshop on Signal Processing and Machine Learning (SiPML-2017)

We would like to thank all workshop organizers for their hard work in organizing these workshops and selecting high quality papers for presentation at workshops, the interesting programs and for the arrangements of the workshop during the conference days.

We hope you will enjoy the conference and have a great time in Barcelona, Spain!

3PGCIC-2017 Workshops Chairs

Pere Tuset, *Open University of Catalonia, Spain*
Flora Amato, *University of Naples, Italy*
Tomoki Yoshihisa, *Osaka University, Japan*

BWCCA-2017 & 3PGCIC-2017 Keynote I

Prof. Isaac Woungang, Ryerson University, Canada

Title: Intercloud and HetNet for Mobile Cloud Computing in 5G Systems: Design Issues, Challenges, and Optimization

Abstract: Emerging 5G systems will be featured by a closer collaboration between mobile network operators and cloud service providers to meet the communication and computational requirements of modern mobile applications and services in a mobile cloud computing (MCC) environment. In this talk, we will show how the marriage between heterogeneous wireless networks (HetNets) and multiple clouds (referred to as InterCloud) stands out as an effective response for the mobile data deluge. First, we review the building blocks of a HetNet and an InterCloud as well as the resource management entities in both domains. Second, we will discuss on how they can be orchestrated to better support the task offloading process. Third, we will identify the key design criteria and challenges related to interoperation between an InterCloud and a HetNet. Finally, we will introduce a novel revenue sharing approach for a coalition between a mobile network operator and cloud service providers, and show that using the Shapley concept, this approach can achieve the maximum revenue for the coalition by optimally associating the users to the clouds through the base stations.

Short Bio: Dr. Isaac Woungang received his Ph.D degree in Mathematics from University of South, Toulon & Var, France, in 1994. From 1999 to 2002, he worked as Software Engineer at Nortel Networks, Ottawa, Canada. Since 2002, he has been with Ryerson University, where he is now a Professor of Computer Science & Director of the Distributed Application and Broadband NEtwork Lab (DABNEL), `http://www.scs.ryerson.ca/iwoungan/`. His current research interests include radio resource management in wireless networks, cloud and Internet-of-things security, and opportunistic networks. He has published 1 authored book, 11 edited books, and over 150 refereed journals and conference papers. He serves as Editor-in-Chief of the International Journal of Communication Networks and Distributed Systems (IJCNDS), Inderscience, UK, and Associate Editor of the International Journal of Communication Systems (IJCS), Wiley. He has also served as Chair of the Computer Chapter, IEEE Toronto Section, from 2012 to 2016.

BWCCA-2017 & 3PGCIC-2017 Keynote II

Dr. Zahoor Khan, Higher Colleges of Technology, United Arab Emirates

Title: Advancements in Internet of Things (IoT); Design challenges and importance of Fog computing over Cloud computing

Abstract: Advancements in the field of internet are increasing at a remarkable rate. Currently only 1% things are connected via internet. Internet of Things (IoT) is a new revolution which will interconnect approximately 50 billion computing and non-computing devices (things) by 2020. Advances in IoT bring new challenges of managing this real-time sensor data. In this talk, we will focus on these challenges with their possible solutions. The importance of Fog computing over Cloud computing in IoT will also be analyzed with the demonstration of real-life scenarios.

Short Bio: Dr. Zahoor Khan is currently working as a Program Chair (A), Curriculum Leader and Graduate Faculty member in the Department of Computer Information Science at Higher Colleges of Technology, United Arab Emirates. He also holds an Adjunct Professor position in the Department of Engineering Mathematics and Internetworking, Faculty of Engineering at Dalhousie University, Canada. Previously he served as a part-time Faculty member of Computing & Information Systems at Saint Mary's University, Canada. He received his PhD and MCSc degrees from Faculty of Engineering and Faculty of Computer Science at Dalhousie University Canada, respectively. He earned his MSc (Computer Engineering) degree from UET Taxila, MSc (Electronics) degree from Quaid-I-Azam University and BSc from University of Peshawar. Dr. Khan has 17+ years of research and development, academia and project management experience in IT and engineering fields. He has multidisciplinary research skills on emerging wireless technologies. His research interests include but are not limited to the areas of e-Health pervasive wireless applications, theoretical and practical applications of Wireless (Body Area) Sensor Networks, and Internet of Things. He is interested in designing and implementing the algorithms related to energy and QoS aware routing protocols, fault management, security, privacy, etc. He is (co)-author of a book and 250+ peer-reviewed Journal and Conference papers. List of his publications can be found here dblp or google scholar. Dr. Khan serves as a regular reviewer/organizer of numerous reputed ISI indexed journals, IEEE conferences, and workshops. Dr. Khan is a senior member of IEEE (SMIEEE) and IAENG.

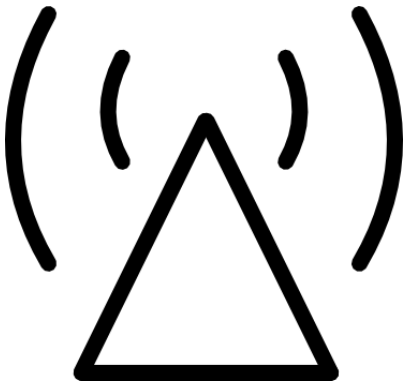
BWCCA-2017 & 3PGCIC-2017 Keynote III

Prof. Deborah Richards, Macquarie University, Australia

Title: Intelligent Virtual Agents for Education and Training

Abstract: This talk will provide an overview of the types and uses of Intelligent virtual agents. Intelligent virtual agents (IVAs) have been a growing area of research within the field of Artificial Intelligence in the past 20 years. An IVA is a piece of software, generally considered to be autonomous in some way, that imitates the behaviour of a human or animal and is embodied within a virtual environment. A primary aim in the field of virtual agents is the creation of believable characters that are useful in their situated paradigm (e.g. games, narratives, education,assistive computing, etc.). There is a significant body of work in the area of believable characters which may be known as pedagogical agents, embodied conversational agents, artificial companions, talking heads, empathic or listening agents depending on their function, level of sophistication or the particular research focus such as emotion and appraisal systems or language technology. The talk will provide an overview of the field, including my research concerning IVAs and memory, emotions and collaborative learning for applications such as debriefing and reminiscing, border security officer training, scientific inquiry and science education, real estate assistance, museum guidance, and adherence to treatment advice.

Short Bio: Deborah Richards is a Professor in the Department of Computing at Macquarie University. Following 20 years in the ICT industry during which she completed a BBus (Comp and MIS) and MAppSc (InfoStudies), she completed a PhD in artificial intelligence on the reuse of knowledge at the University of New South Wales and joined academia in 1999. While she continues to work on solutions to assist decision-making and knowledge acquisition, for the past decade, her focus has been on intelligent systems, agent technologies and virtual worlds to support human learning and well-being. Web page: `http://web.science.mq.edu.au/~richards/`



BWCCA-2017
Main Conference and Workshops Program

Wednesday, November 8, 2017

08:00 Registration

09:00-10:00 Single Session: Opening Ceremony and BWCCA-2017 & 3PGCIC-2017 Keynote I

BWCCA-2017 & 3PGCIC-2017 Keynote Talk I (PLENARY ROOM)

Prof. Isaac Woungang: Intercloud and HetNet for Mobile Cloud Computing in 5G Systems: Design Issues, Challenges, and Optimization

10:00-10:30 Coffee Break

10:30-12:30 Paralell Sessions

BWCCA-S1: Energy Saving and Energy Management

Chair: Makoto Takizawa, Hosei University, Japan

1. Energy-aware Dynamic Migration of Virtual Machines in a Server Cluster
   Dilawaer Duolikun, Ryo Watanabe, Tomoya Enokido, and Makoto Takizawa
2. A Low-energy Unicast Ad-hoc Routing Protocol in Wireless Networks
   Emi Ogawa, Shigenari Nakamura, Tomoya Enokido, and Makoto Takizawa
3. An Energy Efficient Load Balancing Algorithm Based on the Active Time of Cores
   Tomoya Enokido, Dilawaer Duolikun, Makoto Takizawa
4. Real Time Pricing based Appliance Scheduling in Home Energy Management using Optimization Techniques
   Basit Amin, Adia Khalid, Muhammad Azeem Sarwar, Asad Ghaffar, Adnan Satti, Nasir Ayub, Nadeem Javaid
5. Pigeon Inspired Optimization and Bacterial Foraging Optimization for Home Enrgy Management
   Sadia Batool, Adia Khalid, Zunaira Amjad, Hafsa Arshad, Syeda Aimal, Mashab Farooqi, Nadeem Javaid
6. Grey Wolf Optimization Technique for HEMS using Day Ahead Pricing Scheme
   Asad Ghafar, Rabiya Khalid, Mudabbir Ali, CH Anwar ul Hassan, Adnan Ishaq, Basit Amin, Nadeem Javaid

BWCCA-S2: Security and Privacy I

Chair: Kangbin Yim, SCH University, Korea

1. Vulnerability Analysis of Secure Disk: Based on Backup feature of Product A
   MyoungSu Kim, Kyungroul Lee, Kangbin Yim
2. Web Browser Tampering:Inspecting CPU Features from Side-Channel Information
   Takamichi Saito, Koki Yasuda, Kazuhisa Tanabe, and Kazushi Takahashi
3. Mocov: Model based Fuzzing through Coverage Guided Technology
   Chen Chen, Zhouguo Chen, Yongle Hao, and Baojiang Cui
4. A Security Vulnerability Threat Classification Method
   Yuanwei Hou, Xingzhang Ren, Yongle Hao, Tong Mo, Weiping Li
5. A Malware Detection Method Based on Sandbox, Binary Instrumentation and Multidimensional Feature Extraction
   Chong Wang, Jianwei Ding, Tao Guo, Baojiang Cui
6. Embedded System Vulnerability Mining Technology Based on In-memory Fuzzing Test
   Baojiang Cui, Xiangqian Zhang, Tianxin Zhang, Qin Zhang

MNSA-S1: Energy-aware Systems and Home Management

Chair: Tomoya Enokido, Risho University, Japan

1. Home Energy Management in Smart Grid using Bacterial Foraging and Strawberry Algorithm
   Noreen Mushtaq, Muhammad Hassan Rahim, Rabiya Khalid, Samia Abid, Pamir, Sajawal ur Rehman Khan and Nadeem Javaid
2. Implementing Critical Peak Pricing in Home Energy Management using Biography based Optimization and Genetic Algorithm in Smart Grid
   Khadija Ambreen, Rabiya Khalid, Rubab Maroof, Hasan Nasir Khan, Salma Asif, Hina Iftikhar and Nadeem javaid

3. Home Energy Management using Fish Swarm Optimization Bacterial Foraging Algorithm and Genetic Algorithm in Smart Grid
   Shahab Ali, Samia Abid, Zain Ul Abideen, Saman Zahoor, Itrat Fatima, Zunaira Nadeem and Nadeem Javaid
4. Earth Worm Optimization for Home Energy Management System in Smart Grid
   Mudabbir ALi, Samia Abid, Asad Ghafar, Nasir Ayub, Hafsa Arshad, Sajawal Khan and Nadeem Javaid
5. Hybrid Replication Schemes of Processes for Fault-tolerance Systems in Energy-efficient Server Clusters
   Ryuji Oma, Shigenari Nakamura, Tomoya Enokido, and Makoto Takizawa
6. Concept of the Cloud Type Virtual Policy Based Network Management Scheme for the Specific Domain
   Kazuya Odagiri, Shogo Shimizu, Naohiro Ishii, Makoto Takizawa

12:30-13:30 Lunch Break

13:30-15:30 Parallel Sessions

BWCCA-S3: Intelligent Algorithms

Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan

1. Enhanced Differential Evolution and Crow Search Algorithm based Home Energy Management in Smart Grid
   Pamir, Sakeena Javaid, Ishtiaq Ali, Noreen Mushtaq, Zafar Faiz, Hazrat Abubakar Sadiq, Nadeem Javaid
2. Selection of Actor Nodes in Wireless Sensor and Actor Networks Considering Actor-Sensor Coordination Quality Parameter
   Donald Elmazi, Miralda Cuka, Kevin Bylykbashi, Evjola Spaho, Makoto Ikeda, Leonard Barolli
3. A Comparison of Fuzzy Control Schemes to Enhance Sustainability in Microgird
   M. Shahid Laiq, Sheeraz Ahmed, Zahoor Ali Khan, M. Irfan Khattak, Aatra Sadaf
4. Performance Evaluation of WMNs by WMN-PSOSA Simulation System Considering Random Inertia Weight Method and Linearly Decreasing Vmax Method
   Shinji Sakamoto, Kosuke Ozera, Admir Barolli, Makoto Ikeda, Leonard Barolli, Makoto Takizawa
5. Efficient Energy Management System using Firefly and Harmony Search Algorithm
   Anwar Ur Rehman, Sheraz Aslam, Zain Ul Abideen, Asma Zahra, Waqar Ali, Muhammad Junaid, Nadeem Javaid
6. Demand Side Management using Meta-Heuristic Optimization Techniques
   Sidra Razzaq, Adia Khalid, Sughra Razzaq, Zain Ul Abideen, Asma Zahra, Mahnoor Khan, Nadeem Javaid

BWCCA-S4: Security and Privacy II

Chair: Baojiang Cui, Beijing University of Posts and Telecommunications, China

1. Research on UPnP Protocol Security of Gateway Device
   Baojiang Cui, Qin Zhang, Xiangqian Zhang, Tao Guo
2. Hinge Classification Algorithm Based on Asynchronous Gradient Descent
   Xiaodan Yan, Tianxin Zhang, Baojiang Cui, Jiangdong Deng
3. Digital Communication System With High Security and High Noise Immunity: Security Analysis and Simulation
   Ahmed S. Alshammari, Mohamed I Sobhy, Peter Lee
4. Payload-based web attack detection using deep neural network
   Xiaohui Jin, Baojiang Cui, Jun Yang, Zishuai Cheng

5. Directcha-maze: A Study of CAPTCHA Configuration with Machine Learning and Brute-Force Attack Defensibility along with User Convenience Consideration
   Ayane Sano, Masahiro Fujita, Masakatsu Nishigaki
6. Trust-Based Multi-stakeholder Decision Making in Water Allocation System
   Lina Alfantoukh, Yefeng Ruan, Arjan Durresi

MNSA-S2: Multimedia and Network Applications

Chair: Akio Koyama, Yamagata University, Japan

1. A Survey of Optimization Techniques for Scheduling in Home Energy Management Systems in Smart Grid
   Fozia Feroze, Asif Khan, Nabeeha Qayyum, Sakeena Javaid, Adnan Ahmed, Muhammad Hassan Rahim, Nadeem Javaid
2. The Trends of Integrating Renewable Energy Sources: A Survey
   Sardar Mehboob Hussain, Muhammad Hassan Rahim, Zunaira Nadeem, Iqra Fatima, Zafar Iqbal, Sikandar Asif and Nadeem Javaid
3. Towards A Collaborative Editing System on 3D Space
   Tasuku Takahashi, Kengo Imae, and Naohiro Hayashibara
4. Sausage-style One-time Authentication Schemes
   Yuji Suga
5. Coordinate Assignment: Self-outer-recognition in OpenFlow Mesh
   Minoru Uehara

15:30-16:00 Coffee Break

16:00-18:00 Parallel Sessions

BWCCA-S5: Network and Multimedia Applications

Chair: Hiroaki Nishino, Oita University, Japan

1. A Flexible Synchronization Protocol for Hidden Topics to Prevent Illegal Information Flow in P2PPS Systems
   Shigenari Nakamura, Lidia Ogiela, Tomoya Enokido, and Makoto Takizawa
2. A Fuzzy-based Approach for Task Accomplishment in MobilePeerDroid Mobile System
   Yi Liu, Kosuke Ozera, Keita Matsuo, Makoto Ikeda, Leonard Barolli
3. A Simple Migration Algorithm of Virtual Machine in a Server Cluster
   Ryo Watanabe, Dilawaer Duolikun, Cuiqin Qin, Tomoya Enokido, Makoto Takizawa
4. Development of an Adult Care System Based on Interactions with a Communication Robot
   Akihito Yatsuda, Toshiyuki Haramaki, Hiroaki Nishino
5. Interest Re-route control According to Degree of Similarity on Cached Contents using Bloom Filter on NDN
   Haruka Watano, Tetsuya Shigeyasu
6. Modeling and Performance Evaluation of Protocols in Mobile Wireless Sensor Networks
   Manel Houimli, Laid Kahloul

BWCCA-S6: IoT and Smart Home

Chair: Farookh Khadeer Hussain, University Technology Sidney, Australia

1. Effect of Storage Size on IoT Device Selection in Opportunistic Networks: A Comparison Study of Two Fuzzy-based Systems
   Miralda Cuka, Donald Elmazi, Tetsuya Oda, Elis Kulla, Makoto Ikeda, Leonard Barolli

2. A Centralized Trust Management Mechanism for the Internet of Things (CTM-IoT)
   Mohammad Dahman Alshehri, Farookh Khadeer Hussain
3. Home Energy Management System Using Ant Colony Optimization Technique in Microgrid
   Itrat Fatima, Adia Khalid, Saman Zahoor, Anila Yasmeen, Shahan Arif, Umara Zafar, Nadeem Javaid
4. An Object Management and Fuzzy Based Location Estimation Method Using Active RFID Tags
   Kaiki Ohkoshi, Hiroyuki Suzuki, Akio Koyama
5. Scheduling of Appliances in HEMS using Elephant Herding Optimization and Harmony Search Algorithm
   Komal Parvez, Sheraz Aslam, Arje Saba, Syeda Aimal, Zunaira Amjad, Sikandar Asif, Nadeem Javaid
6. Swarm Intelligence Based Home Energy Management Controller Under Dynamic Pricing Scheme
   Adnan Ahmed, Muhammad Hassan Rahim, Fozia Feroze, Ayesha Zafar, Itrat Fatima, Sheraz Aslam, Nadeem Javaid

CWECS-S1: Cloud, Wireless and e-Commerce Security

Chair: Fang-Yie Leu, Tunghai University, Taiwan

1. A Critical Quality Measurement Model for Managing and Controlling Big Data Project Risks
   Sen-Tarng Lai, Fang-Yie Leu
2. A Light Weight Data Encryption Method for WSN Communication
   Kun-Lin Tsai, Fang-Yie Leu, Tung-Hung Su, Yi-Chen Chang
3. Predicting Video Stream Fragments in a Reactive Mode
   Chien-Hsiang Kao, Fang-Yie Leu
4. Relay Base-Station Handover in a 5G Environment
   Zong-Ying Yang, Fang-Yie Leu
5. Privacy-Preserving Multi-Authority Ciphertext-Policy Attribute-Based Encryption with Revocation
   Hua Ma, Enting Dong, Zhenhua Liu and Linchao Zhang

19:00-21:00 Welcome Reception Party

Welcome reception will be held at Palau Macaya.
`https://obrasociallacaixa.org/en/web/guest/centros/palau-macaya/programacion/que-hacemos`

Thursday, November 9, 2017

09:00 Registration

09:30-10:30 Single Session: BWCCA-2017 & 3PGCIC-2017 Keynote II

BWCCA-2017 & 3PGCIC-2017 Keynote Talk II

Dr. Zahoor Khan: Advancements in Internet of Things (IoT); Design challenges and importance of Fog computing over Cloud computing

10:30-11:00 Coffee Break

11:00-12:00 Single Session: BWCCA-2017 & 3PGCIC-2017 Keynote III

BWCCA-2017 & 3PGCIC-2017 Keynote Talk III

Prof. Deborah Richards: Intelligent Virtual Agents for Education and Training

12:00-13:30 Lunch Break

13:30-15:30 Parallel Sessions

BWCCA-S7: Wireless Networks and Applications

Chair: Tomoya Enokido, Risho University, Japan

1. LTE-LAA and Wi-Fi Physical Layer Performance and Coverage Comparison
   Oudomsack Pierre Pasquero, Marie Le Bot, Marie-Hélène Hamon and Christian Gallard
2. A Hybrid-Distributed Base Station Wake-up Algorithm in Dense Heterogeneous Celular Networks
   LiDa, Zhou Wen'an, Liu jianlong, Li Bingqian
3. Design of MIMO System with Individual Transmit Power Constraint and Improper Constellation
   Raa Muthalagu
4. Implementation of 1:N Communication Model using Serial Communication in an RF-based Environment
   Yen-Ju Lee, Jeong-In Kim, Eun-Ji Lee, Tak-Eun Hong, Pan-Koo Kim
5. Development of Unified Model to Increase Coverage Area in 5G Networks using Femtocells
   M.Usman Younus, Rabia Shafi
6. Energy Savings in Power Control for 5G Dense Femtocells
   Christos Bouras and Georgios Diles and Theodoros Moulias

BWCCA-S8: Cognitive Systems and Routing Protocols

Chair: Isaac Woungang, Ryerson University, Canada

1. Interference Aware Metric-based Routing Protocol in Cognitive Radio Networks
   Abhishek Kumar, Sanjay Kumar Dhurandher, Isaac Woungang, Vinesh Kumar, Makoto Takizawa
2. Visual CAPTCHA for Data Understanding and Cognitive Management
   Natalia Krzyworzeka, Lidia Ogiela
3. Classification of Cognitive Service Management Systems in Cloud Computing
   Urszula Ogiela, Makoto Takizawa, Lidia Ogiela
4. A Mobility Network for Disaster and Emergent Information Systems in Challenged Network Environment
   Yoshitaka Shibata, Kenta Ito, Goshi Sato
5. Application of Cognitive Cryptography in Fog and Cloud Computing
   Marek R. Ogiela, Lidia Ogiela
6. Comparison of Spray and Wait and Epidemic Protocols in Different DTN Scenarios
   Kevin Bylykbashi, Evjola Spaho, Leonard Barolli and Makoto Takizawa

MAPWC-S1: Analysis and Protocols for Wireless Communication

Chair: Kazunori Uchida, Fukuoka Institute of Technology, Japan

1. Optimal Base Station Planning Using Genetic Algorithm for LTE Network
   Ouamri Med Amine, Zenadji Cilia, Abdelkrim Khireddine
2. Line of Sight Procedure for Dijkstra-Algorithm Based Ray-Tracing
   Kazunori Uchida, Leonard Barolli
3. A Message Suppression Method Considering Priority for Inter-Vehicle Communications
   Yu Yoshino, Daichi Koga, Shogo Nakasaki, Makoto Ikeda and Leonard Barolli
4. Signal Routing by Dispersive Medium
   Hiroshi Maeda, Keisuke Haari, Xiang Zheng Meng and Naoki Higashinaka

15:30-16:00 Coffee Break

16:00-18:00 Parallel Sessions

NGWMN-S1: Next Generation Networks

Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan

1. Performance Evaluation of an IoT-Based E-Learning Testbed Using Mean-shift Clustering Approach Considering Gamma Type of Brain Waves
   Masafumi Yamada, Kevin Bylykbashi, Miralda Cuka, Yi Liu, Keita Matsuo, Leonard Barolli
2. A Fuzzy-based System for Actor Node in an Ambient Intelligence Testbed: Effects of Different Parameters on Human Sleeping Conditions
   Ryoichiro Obukata, Kevin Bylykbashi, Kosuke Ozera, Yi Liu, Shinji Sakamoto, Leonard Barolli
3. A New Space-Time Coding Method Based on OCML
   Zhao Chen and Jiang-Yan Wu
4. Experimental Evaluation of a WLAN Triage Testbed Considering Relation of Connection Success Ratio and Connected Time Ratio with User Priority and RSSI Parameters
   Kosuke Ozera, Takaaki Inaba, Kevin Bylykbashi, Shinji Sakamoto and Leonard Barolli
5. Circular Microstrip Patch Antenna Design for LTE, ISM, WIMAX, Satellite Communication and in Ultra Wide-Band Applications
   Zain Ul Abedin

RI3C-S1: Robotics and Cooperative Systems

Chair: Keita Matsuo, Fukuoka Institute of Technology, Japan

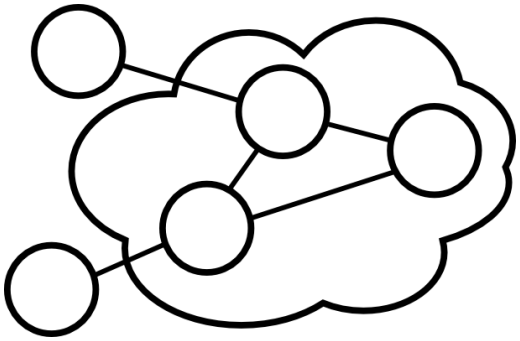
1. Omnidirectional Wheelchair Vision with Small Reflect Mirrors for Tennis Ball Tracking
   Keita Matsuo and Leonard Barolli
2. Investigation Using Multi-Agent Simulation Environment for Evacuation Guidance with Robots
   Ryuta Sugie, Takahiro Uchiya, Ichi Takumi
3. Design of Reminiscence Therapy System for Elderly People with Dementia
   Takahiro Uchiya, Ryota Nishimura, Takahiro Hirano, Masaru Sakurai
4. A Disaster Information Gathering System Design Using Fuzzy Logic
   Gaku Tsuchiya, Makoto Ikeda, Donald Elmazi, Leonard Barolli and Elis Kulla

20:00-22:00 Banquet Party

Banquet Party will be held at Catalonia-Plaza Espanya Hotel.
`http://www.cataloniabcnplaza.com/`

Friday, November 10, 2017

BWCCA-2017 Organizing Committee Meeting and Discussion



3PGCIC-2017
Main Conference and Workshops Program

Wednesday, November 8, 2017

08:00 Registration

09:00-10:00 Single Session: Opening Ceremony and BWCCA-2017 & 3PGCIC-2017 Keynote I

BWCCA-2017 & 3PGCIC-2017 Keynote Talk I (PLENARY ROOM)

Prof. Isaac Woungang: Intercloud and HetNet for Mobile Cloud Computing in 5G Systems: Design Issues, Challenges, and Optimization

10:00-10:30 Coffee Break

10:30-12:30 Paralell Sessions

3PGCIC-S1: Security, Dependability and Reliability Computing

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

1. Phonetics-based Parallel Privacy Preserving Record Linkage
   Alexandros Karakasidis and Georgia Koloniari
2. Embedding Strategies in Multi-Secret Steganography
   Katarzyna Koptyra, Marek R. Ogiela
3. A Short Review for Ransomware: Pros and Cons
   Hasan Awni Shakir, Aws Naser Jaber
4. Security and Understanding Techniques for Visual CAPTCHA Interpretation
   Natalia Krzyworzeka, Lidia Ogiela
5. RBF Model Based on the KECDBN
   Xiurong Chen, Yixiang Tian, Xuan Wang, Xuguang Wu
6. Design of a S-box for SMS4 Based on Threshold Implementation
   Li Xinchao, Ma Shuangpeng

3PGCIC-S2: Bioinspired Computing and Pattern Recognition

Chair: Fatos Xhafa, Technical University of Catalonia, Spain

1. Application of Genetic Algorithm and Simulated Annealing to Ensemble Classifier Training on Data Streams
   Konrad Jackowski
2. Convergence Analysis of PSO for Hyper-Parameter Selection in Deep Neural Networks
   Jakub Nalepa and Pablo Ribalta Lorenzo
3. Performance Evaluation of WMNs by WMN-PSOSA Simulation System Considering Constriction and Linearly Decreasing Vmax Methods
   Admir Barolli, Shinji Sakamoto, Kosuke Ozera, Makoto Ikeda, Leonard Barolli and Makoto Takizawa
4. Home Energy Management using Social Spider and Bacterial Foraging Algorithm
   Arje Saba, Adia Khalid, Adnan Ishaq, Komal Parvez, Sayed Aimal, Waqar Ali and Nadeem Javaid
5. Optimization of Home Energy Management System through Application of Tabu Search
   Sundas Shafiq, Iqra Fatima, Samia Abid, Sikandar Asif, Sajeeha Ansar, Zain Ul Abideen and Nadeem Javaid
6. Load Scheduling in Home Energy Management System using Meta-heuristic Techniques and Critical Peak Pricing Tariff
   Maham Tariq, Adia Khalid, Iftikhar Ahmad, Mahnoor Khan, Bushra Zaheer and Nadeem Javaid

SiPML-S1: Signal Processing and Machine Learning I

Chair: Ricardo Rodríguez, Autonomous University of Ciudad Juarez, Mexico

1. Estimation Model of Food Texture Considering Sound nd Load by Neural Network and Fuzzy Logic
   Shigeru Kato, Naoki Wada
2. Adaptive Threshold, Wavelet and Hilbert Transform for QRS Detection in Electrocardiogram Signals
   Ricardo Rodriguez Jorge, Edgar Martínez García, Rafael Torres Córdoba, Jiri Bila, J. Mizera-Pietraszko
3. Prediction of Highly Non-Stationary Time Series Using Higher-Order Neural Units
   Ricardo Rodríguez Jorge, Edgar Martínez García, Jolanta Mizera-Pietraszko, Jiri Bila, Rafael Torres Córdoba
4. Predicting the Short-Term Exchange Rate between United State dollar and Czech Koruna Using Hilbert-Huang Transform and Fuzzy Logic
   N.B. Nghien, Ricardo Rodríguez Jorge, Edgar Martínez García, Rafael Torres Córdoba, Jolanta Mizera-Pietraszko, Angel Montes Olguín

12:30-13:30 Lunch Break

13:30-15:30 Parallel Sessions

3PGCIC-S3: Machine Learning and Cognitive Systems

Chair: Farookh Hussain, University Technology Sydney, Australia

1. A Machine Learning Approach for Ranking in Question Answering
   Alba Amato, Antonio Coronato
2. Detecting Malware Based on Opcode N-Gram and Machine Learning
   Pengfei Li, Zhouguo Chen, Baojiang Cui
3. Query Expansion based on WordNet and Word2vec for Italian Question Answering Systems
   Emanuele Damiano, Aniello Minutolo, Stefano Silvestri and Massimo Esposito
4. Tuning SyntaxNet for POS Tagging Italian Sentences
   Fiammetta Marulli, Marco Pota, Massimo Esposito
5. Home Energy Management by Differential Evolution and Enhanced Differential Evolution in Smart Grid Environment
   Fatima Tariq, Samia Abid, Muhammad Talha, Musa Ahmad, Haq Nawaz, Ayesha Areej and Nadeem Javaid
6. Demand Side Optimization in Smart Grid using Harmony Search Algorithm and Social Spider Algorithm
   Muhammad Junaid, Muhammad Hassan Rahim, Anwar Ur Rehman, Waqar Ali, Muhammad Awais, Tamour Bilal and Nadeem Javaid

3PGCIC-S4: Intelligent Computing

Chair: Omar Hussain, UNSW Canberra, Australia

1. ECT: A Novel Architecture for Evidence CollecTion in Forensic Investigation
   Flora Amato, Leonard Barolli, Giovanni Cozzolino, Antonino Mazzeo and Francesco Moscato
2. A Policy Based Framework for Software Defined Optical Networks
   Md Israfil Biswas, Mamun Abu-Tair, Philip Morrow, Sally McClean, Bryan Scotney, Gerard Parr
3. An Algorithm for Migration and Resource Planning in Cloud Technologies
   Lubos Mercl

4. A Hybrid Genetic Based on Harmony Search Method to Schedule Electric Tasks in Smart Home
Manzoor Ahmad, Asif Khan, Zunaira Nadeem, Anila Yasmeen, Iqra Fatima, Saman Zahoor and Nadeem Javaid
5. Improved Ant Colony RBF Spatial Interpolation of Ore Body Visualization Software Development
Xiurong Chen, Xuan Wang, Xuguang Wu
6. Energy Efficiency using Genetic and Crow Search Algorithms in Smart Grid
Ayesha Anjum Butt, Muhammad Hassan Rahim, Mahnoor khan, Asma Zahra, Maham Tariq, Tanveer Ahmad and Nadeem Javaid
7. Residential Demand Side Management in Smart Grid using Meta-heuristic Techniques
Mahnoor Khan, Rabiya Khalid, Bushra Zaheer, Maham Tariq, Zain ul Abideen, Hera Malik and Nadeem Javaid

SiPML-S2: Signal Processing and Machine Learning II

Chair: Jolanta Mizera-Pietraszko, Opole University, Poland

1. Non Linear Fitting Methods for Machine Learning
Edgar A. Martinez-Garcia, Nancy Avila, Ricardo Rodríguez Jorge, Jolanta Mizera-Pietraszko, Jaichandar Kulandaidaasan Sheba, Mohan Rajesh Elara, Evgeni Magid
2. Stability Analysis of Routing Strategies for the Maximum Lifetime Problem in One-dimensional Ad-hoc Wireless Networks
Zbigniew Lipiński
3. Analysis of Mastication Sound for Development of Food Texture Inference System
Shigeru Kato, Naoki Wada, Ryuji Ito, Rina Kondo, Tomomichi Kagawa
4. Physical-parameter Identification of Structures from Seismic Responses via Maximum Likelihood Estimation
Wei-Chih Su

15:30-16:00 Coffee Break

16:00-18:00 Parallel Sessions

3PGCIC-S5: Social Networking and Applications

Chair: Santi Caballé, Open University of Catalonia, Spain

1. Characterizing User Influence within Twitter
Mehran Asadi and Afrand Agah
2. Host Based Intrusion Detection and Prevention Model Against DDoS Attack in Cloud Computing
Aws Naser Jaber, Mohamad Fadli Zolkipli, Hasan Awni Shakir, Mohammed R. Jassim
3. The Prediction Model of Online Social Networks' Evolution Based on the Similarity of Community
Li Xiaolong, Zhang Deyang
4. Routing in a DTN: Performance Evaluation for Random Waypoint and Steady State Random Waypoint Using NS3 Simulator
Evjola Spaho, Kevin Bylykbashi, Leonard Barolli and Makoto Takizawa
5. Optimal Residential Load Scheduling Under Utility and Rooftop Photovoltaic Units
Ghulam Hafeez, Rabiya Khalid, Abdul Wahab Khan, Malik Ali Judge, Zafar Iqbal, Rasool Bukhsh, Asif Khan and Nadeem Javaid
6. An Efficient Home Energy Management Scheme using Cuckoo Search
Sheraz Aslam, Rasool Bukhsh, Adia Khalid, Nadeem Javaid, Ibrar Ullah, Itrat Fatima and Qadeer Ul Hasan
7. A Game Model of APT Attack for Distributed Network
Zhang Wei, Su Yang, Chen Wenwu

3PGCIC-S6: P2P, Grid, Cloud and Internet Computing

Chair: Francesco Moscato, University of Naples, "Federico II", Italy

1. Modeling Instability for Large Scale Processing Tasks within HEP Distributed Computing Environments
   Olga Datskova and Weidong Shi
2. Multi-level Orchestration of Cloud Services in OrCS
   Flora Amato, Francesco Moscato and Fatos Xhafa
3. Performance Analysis of AIN-PT, AIN-SLT and SIIT Network-based Translators
   Ala Hamarsheh, Mujahed Eleyat
4. Hiring Doctors in E-Healthcare With Zero Budget
   Vikash Kumar Singh, Sajal Mukhopadhyay and Rantu Das
5. Metric Based Cloud Infrastructure Monitoring
   Ales Komarek, Jakub Pavlik, Lubos Mercl and Vladimir Sobeslav
6. Quality CloudCrowd: A Crowdsourcing Platform for QoS Assessment of SaaS Services
   Asma Musabah Alkalbani and Farookh Khadeer Hussain

DEM-S1: Distributed Embedded Systems

Chair: Peter Hellinckx, University of Antwerp, Belgium

1. Cost and Energy Efficient Indoor and Outdoor Localization of Rail Cars in a Confined Maintenance Site
   Frédéric Melaerts, Siegfried Mercelis, Marc Ceulemans and Peter Hellinckx
2. Wireless Surface Electromyography
   Rens Baeyens, Rafael Berkvens, Walter Daems, Jean-Pierre Baeyens, Maggy Goossens and Maarten Weyn
3. Context-Aware Optimization of Distributed Resources in Internet of Things using Key Performance Indicators
   Muddsair Sharif, Siegfried Mercelis and Peter Hellinckx
4. Acsim: Towards Hyper-scalable Internet of Things Simulation
   Stig Bosmans, Siegfried Mercelis, Marc Ceulemans, Joachim Denil and Peter Hellinckx
5. Automatic Reverse Engineering of CAN Bus Data Using Machine Learning Techniques
   Thomas Huybrechts, Yon Vanommeslaeghe, Dries Blontrock, Gregory Van Barel and Peter Hellinckx

19:00-21:00 Welcome Reception Party

Welcome reception will be held at Palau Macaya.
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Thursday, November 9, 2017

09:00 Registration

09:30-10:30 Single Session: BWCCA-2017 & 3PGCIC-2017 Keynote II

BWCCA-2017 & 3PGCIC-2017 Keynote Talk II

Dr. Zahoor Khan: Advancements in Internet of Things (IoT); Design challenges and importance of Fog computing over Cloud computing

10:30-11:00 Coffee Break

11:00-12:00 Single Session: BWCCA-2017 & 3PGCIC-2017 Keynote III

BWCCA-2017 & 3PGCIC-2017 Keynote Talk III

Prof. Deborah Richards: Intelligent Virtual Agents for Education and Training

12:00-13:30 Lunch Break

13:30-15:30 Parallel Sessions

SMDMS-S1: Streaming Media Delivery and Management Systems

Chair: Tomoki Yoshihisa, Osaka University, Japan

1. Design and Implementation of Division-based Broadcasting Using NS-3
   Tomoya Sakurada and Yusuke Gotoh
2. A Rare Piece Diffusion Method Using Rateless Coding on BitTorrent-like Distribution System
   Akihiro Fujimoto, Yusuke Hirota and Hideki Tode
3. Models for Stream Data Distribution with Progressive Quality Improvement
   Tomoki Yoshihisa, Yoshimasa Ishi, Tomoya Kawakami, Satoru Matsumoto, Yuuichi Teranishi
4. A Skip Graph-Based Collection System for Sensor Data Streams Considering Phase Differences
   Tomoya Kawakami, Yoshimasa Ishi, Tomoki Yoshihisa, and Yuuichi Teranishi

CADSA-S1: Cloud and Distributed System Applications

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

1. Voting in Distributed Revision Control Systems
   Philipp Hagemeister, Martin Mauve
2. Analysis of Frameworks for Building IaaS Cloud using by Cloud Computing Providers
   Lubos Mercl, David Sec, Vladimir Sobeslav
3. Orchestration and Automation of NVF
   Ales Komarek, Jakub Pavlik, and Vladimir Sobeslav

4. NoC-based Thread Synchronization in a Custom Manycore System
   Alessandro Cilardo, Mirko Gagliardi, Daniele Passaretti
5. A Methodology for Social Networks Analysis and Mining
   Flora Amato, Giovanni Cozzolino, Vincenzo Moscato, Antonio Picariello and Giancarlo Sperlı `
6. DGP Application for Support Traffic Information Systems in Indoor and Outdoor Environments
   Walter Balzano, Fabio Vitale
7. LoDGP: A Framework for Support Traffic Information Systems based on Logic Paradigm
   Walter Balzano, Silvia Stranieri

ALICE-S1: Adaptive Learning Systems

Chair: Santi Caballé, Open University of Catalonia, Spain

1. Application of Fuzzy Ordinal Peer Assessment in Formative Evaluation
   Nicola Capuano, Francesco Orciuoli
2. How RU? Finding Out When to Help Students
   Hedieh Ranjbartabar, Deborah Richards, Cat Kutay
3. Principles for an Effort-aware System
   David Bañeres
4. An Adaptive Learning Approach using a Full Engagement Educational Framework
   Rocael Hernández, Hector R. Amado-Salvatierra

15:30-16:00 Coffee Break

16:00-18:00 Parallel Sessions

MWVRTA-S1: Multimedia, Web and Virtual Reality Technologies

Chair: Kaoru Sugita, Fukuoka Institute of Technology, Japan

1. Proposal of an Open Data Visualization System for Disaster Prevention and Disaster Reduction
   Kentaro Koike, Misaki Iyobe, Tomoyuki Ishida, Noriki Uchida, Kaoru Sugita, Yoshitaka Shibata
2. A Conceptual Framework for Developing an Information Retrieval for Healthcare Services
   Nattapon Harnsamut, Bun Suwanparsert, Pruet Boonma, Watcharaporn Sitthikamtiub, Krit Khwanngern, Juggapong Natwichai
3. Adaptive Array Antenna Systems with Machine Learning based Image Recognitions for Vehicular Delay Tolerant Networking
   Noriki Uchida, Tomoyuki Ishida, Yoshitaka Shibata
4. Evaluation of Multimedia Contents for Supporting Different Types of Self-learning
   Takuya Inumaru and Kaoru Sugita

SMECS-S1: Modelling of Engineering and Computational Systems

Chair: Juggapong Natwichai, Chiang Mai University, Thailand

1. Power Management in Smart Grid for Residential Consumers
   Muhammad Shahid Saeed, Adia Khalid, Anila yasmeen, Zunaira Nadeem, Muhammad Awais Younas, Syed Zain Raza and Nadeem Javaid
2. Demand Side Management in Smart Grid by using Flower Pollination Algorithm and Genetic Algorithm
   Bushra Zaheer Abbasi, Sakeena Javaid, Shaista Bibi, Mahnoor Khan, Maryyam Nawaz Malik, Ayesha Anjum Butt and Nadeem Javaid

3. Using Meta-heuristic and Numerical Algorithm Inspired by Evolution Differential Equation and Strawberry Plant for Demand Side Management in Smart Grid
   Ihsan Ali, Sheraz Aslam, Kashif Khan, Waqas Ahmad, Hazrat Abubakar Sadiq and Nadeem Javaid
4. Genetic Algorithm and Earthworm Optimization Algorithm for Energy Management in Smart Grid
   Sajawal ur Rehman khan, Asif Khan, Noreen Mushtaq, Syed Hassnain Faraz, Osama Amir Khan, Muhammad Azeem Sarwar and Nadeem Javaid
5. Clinical Pathway Pattern Mining: Cleft Lip and Cleft Palate Case Studies
   Arnuparb Limpastan, Kamolchanok Kammabut, Krit Kwanngern, Juggapong Natwichai

ALICE-S2: Interactive and Emotional Approaches

Chair: Nicola Capuano, University of Salerno, Italy

1. Student Engagement Value (SEV): Adapting Customer Lifetime Value (CLV) for a Learning Environment
   Isuru Balasooriya, Jordi Conesa, Enric Mor, M. Elena Rodríguez
2. Learning Resources based on Analysis of Digital Newspaper Data
   Antonio Sarasa Cabezuelo
3. Applications of Distributed and High Performance Computing to Enhance Online Education
   Santi Caballé, Wei Li, Reza Hoseiny, Albert Zomaya, Fatos Xhafa
4. Design of a Microlevel Student Engagement Data Capture System
   Isuru Balasooriya, Enric Mor, M. Elena Rodríguez

20:00-22:00 Banquet Party

Banquet Party will be held at Catalonia-Plaza Espanya Hotel.
`http://www.cataloniabcnplaza.com/`

Friday, November 10, 2017

3PGCIC-2017 Organizing Committee Meeting and Discussion

Information

BWCCA-2017 and 3PGCIC-2017 Session Schedule
November 8-10, 2017
Palau Macaya, Barcelona, Spain

Wednesday (November 8, 2017)		ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5	ROOM 6
Slot	**Time**	Registration					
Session 1	**09:00 – 10:00**	Openning Ceremony BWCCA-2017 and 3PGCIC-2017 Keynote I (Plenary Room)					
Coffee Break	10:00 – 10:30	Coffee Break					
Session 2	**10:30 – 12:30**	BWCCA S1	BWCCA S2	MNSA S1	3PGCIC S1	3PGCIC S2	SiPML S1
Lunch	12:30 – 13:30	Lunch Break					
Session 3	**13:30 – 15:30**	BWCCA S3	BWCCA S4	MNSA S2	3PGCIC S3	3PGCIC S4	SiPML S1
Coffee Break	15:30 – 16:00	Coffee Break					
Session 4	**16:00 – 18:00**	BWCCA S5	BWCCA S6	CWECS S1	3PGCIC S5	3PGCIC S6	DEM S1
Social Event	19:00 – 21:00	*Welcome Reception Party*					

Thursday (November 9, 2017)		ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5	ROOM 6
Slot	**Time**	Registration					
Session 1	**09:30 – 10:30**	BWCCA-2017 and 3PGCIC-2017 Keynote II (Plenary Room)					
Coffee Break	10:30 – 11:00	Coffee Break					
Session 2	**11:00 – 12:00**	BWCCA-2017 and 3PGCIC-2017 Keynote III (Plenary Room)					
Lunch	12:00 – 13:30	Lunch Break					
Session 3	**13:30 – 15:30**	BWCCA S7	BWCCA S8	MAPWC S1	SMDMS S1	CADSA S1	ALICE S1
Coffee Break	15:30 – 16:00	Coffee Break					
Session 4	**16:00 – 18:00**	NGWMN S1	RI3C S1		MWVRTA S1	SMECS S1	ALICE S2
Social Event	20:00 – 22:00	*Banquet Party (Catalonia-Plaza Espanya Hotel)*					

Friday (November 10, 2017)		ROOM 1	ROOM 2	ROOM 3	ROOM 5	ROOM 6	ROOM 7
Slot	**Time**	BWCCA-2017 and 3PGCIC-2017 Steering Committee Meeting and Discussion					