

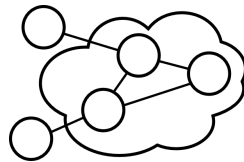
PROGRAM GUIDE



BWCCA-2023

The 18-th International Conference on
Broad-Band and Wireless Computing, Communication and Applications

and



3PGCIC-2023

The 18-th International Conference on
P2P, Parallel, Grid, Cloud and Internet Computing
Virtual Conference (Hybrid conferences)
November 8th - November 10th, 2023

Supported by:



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BWCCA-2023 Organizing Committee**Honorary Chair**

Makoto Takizawa, *Hosei University, Japan*

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Welcome Message from the BWCCA-2023 International Conference Organizers

Welcome to the 18-th International Conference on Broadband and Wireless Computing, Communication and Applications (BWCCA-2023), which will be held in conjunction with 3PGCIC-2023 International Conference from November 8 to November 10, 2023.

This International Conference is a forum for sharing ideas and research work in the emerging areas of broadband and wireless computing. Information networks of today are 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.

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-2023 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.

We thank Web Administrators Co-Chairs and Finance Chair for their excellent work. We would like to express our gratitude to Prof. Makoto Takizawa, Hosei University, Japan as Honorary Chair of BWCCA-2023 for his support and help. We give special thanks to Keynote Speakers of BWCCA-2023 and local arrangement team.

We are thankful to Daegu Convention & Visitors Bureau (DCVB) and Korea Tourism Organization (KTO) for providing us very good facilities to hold the conference and for the financial support.

We hope you will enjoy the conference proceedings.

3PGCIC-2023 Organizing Committee

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Jaehee Jung, *Myongji University, South Korea*

Steering Committee Chair

Leonard Barolli, *Fukuoka Institute of Technology, Japan*

Welcome Message from the 3PGCIC-2023 International Organizing Committee

Welcome to the 18-th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC-2023), which will be held in conjunction with BWCCA-2023 International Conference from November 8 to November 10, 2023.

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. The 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.

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.

Many people have helped and worked hard to produce a successful 3PGCIC-2023 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.

We thank Web Administrators for their excellent work and support with the Web Submission and Management System of conference. We are grateful to Prof. Makoto Takizawa, Hosei University, Japan as Honorary Chair of the conference for his support and encouragement. Our special thanks also go to Keynote Speakers.

We are thankful to Daegu Convention & Visitors Bureau (DCVB) and Korea Tourism Organization (KTO) for providing us very good facilities to hold the conference and for the financial support.

We hope you will enjoy the conference proceedings.

BWCCA-2023 & 3PGCIC-2023 Keynote I



Prof. Seunghyun Park, Hansung University, Seoul, Korea

Title: Secure Connected and Autonomous Vehicles: Research Trends and Challenges

Abstract: Automotives are evolving into large-scale smart devices connected to the Internet, and the self-driving functionalities in these vehicles are dramatically changing the mobility of users. However, new security threats not considered in existing vehicles are emerging behind this convenience. In particular, the diverse connectivity of automobiles, including the Internet, provides critical attack surfaces to which hackers can gain malicious access. Moreover, autonomous vehicles that take over control from humans require higher safety and security criteria because even minor security flaws or malfunctions can cause accidents with significant human casualties. In this talk, we will introduce the convenience of the recently evolving Connected and Autonomous Vehicles (CAVs) and investigate the risks of cyber attacks accompanying such advantages. In addition, we analyze essential cyber security research trends to mitigate these cyber risks and discuss the development direction of cyber security perspectives for CAVs.

Bio: **Seunghyun Park** is an Assistant Professor in the Division of Computer Engineering at Hansung University, South Korea. His researches are mobility and cyber security, especially automotive intrusion detection, threats analysis and risk assessment methods, connectivity hacking and defense technologies, and vehicle cybersecurity compliance and regulation, including UN Regulation No.155 and ISO/SAE 21434. Before joining the school, he received his Ph.D in Cybersecurity from the Graduate School of Cybersecurity at Korea University. He conducted diverse cybersecurity projects and practices for automotive and enterprise security, such as ISO 15118-based PKI for EV Plug & Charge, In-Car Payment, Automotive Software Update OTA, and data-driven incident responses at Hyundai Motor Company. He has served as the executive committee for The Korean Institute of Communications and Information Sciences since 2023, an expert advisory group to The Board of Audit and Inspection of Korea, Korea Health Information Service, and Korea Labor and Employment Service since 2021, and Auto-ISAC committee member since 2016.

BWCCA-2023 & 3PGCIC-2023 Keynote II



Dr. Kaori Yoshida, Kyushu Institute of Technology, Kitakyushu, Japan

Title: Toward Human-friendly Information System Design

Abstract: As network technology advances, it is imperative to consider the end users' experiences when designing and implementing network infrastructure. The focus on human-friendly information system design is gaining popularity, a trend we should take seriously. With the increasing complexity of network infrastructure, it is easy to overlook the human characteristics of the design process. Designing systems that are easy to use and understand benefits end users. This talk provides an overview of information system design and its examples.

Bio: **Kaori Yoshida** is an Associate Professor at the Graduate School of Life Science and System Engineering, Kyushu Institute of Technology. She was visiting researcher at CSLI Stanford University in 2003, Senior Research Scientist at Fuzzy Logic Systems Institute since 2011, and also collaborating as a researcher at Network Design Research Center since 2004. Her research interests include Kansei Information Processing, Human-Computer Interaction, and Soft Computing.



BWCCA-2023

Main Conference and Workshops Program

Wednesday, November 8, 2023

BWCCA-2023 Keynote I

10:00-11:00 (UTC+9) Korea Standard Time

03:00-04:00 (UTC+2) CEST Time Zone (Rome, Italy)

BWCCA-2023 Keynote Talk I

Prof. Seunghyun Park: Secure Connected and Autonomous Vehicles: Research Trends and Challenges

Coffee Break

11:00-11:30 (UTC+9) Korea Standard Time

Parallel Sessions

11:30-13:00 (UTC+9) Korea Standard Time

04:30-06:00 (UTC+2) CEST Time Zone (Rome, Italy)

BWCCA-S1: Robot and Agent Control and Communication

Session Chair: Keita Matsuo, Fukuoka Institute of Technology, Japan

1. Effect of Multiple Unmanned Aerial Vehicles on Data Transmission Considering DTN-based V2V Communication in Urban Area
Shura Tachibana, Ryuki Shiromoto, Makoto Ikeda, Leonard Barolli
2. Moving Accuracy Measurement of Omnidirectional Robot for MOAP and Wheelchair Tennis
Keita Matsuo, Elis Kulla, Leonard Barolli
3. Data Augmentation Method for Improving Object Detection Accuracy of Recumbent Human in Disaster
Takahiro Uchiya, Taiga Yamada
4. Optimal Compressing and Decompressing Digital-Ink Handwriting via Sparse Gaussian Process Regression and Dynamic Programming
Jinya Yano, Hiroyuki Fujioka

BWCCA-S2: IoT and Multimedia Networking

Session Chair: Yoshihiro Okada, Kyushu University, Japan

1. Information Flow Control in the Fog Computing Model based on a Component Degree Concept
Shigenari Nakamura, Tomoya Enokido, Makoto Takizawa
2. Implementation and Benchmarking of Kubernetes Horizontal Pod Autoscaling Method to Event-Driven Messaging System
Xavier Samuel Pilyai, Rafsanjani Nurul Irsyad, Ikhwani Nashir Zaini, Ridha Muldina Negara, Sofia Hertiana, Rohmat Tulloh
3. An Effective Technique for Collecting Multi-languages Hotel Reviews: A Case Study of 5 Stars Hotels in Bali Island
Nariman Dahlan
4. Web Viewer for Educational VR Contents of 3D Scene Models Supporting VR-goggle
Yoshihiro Okada, Kosuke Kaneko, Wei Shi
5. A Model to Estimate the Minimum Data Transmission Time in IoT Networks using Multiple Fungible Paths
David W. White, Isaac Woungang, Felix O. Akinladejo, Sanjay Kumar Dhurandher

Lunch Break

13:00-14:00 (UTC+9) Korea Standard Time

Parallel Sessions

14:00-15:30 (UTC+9) Korea Standard Time

07:00-08:30 (UTC+2) CEST Time Zone (Rome, Italy)

BWCCA-S3: Intelligent and Cognitive Computing**Session Chair: Shinji Sakamoto, Kanazawa Institute of Technology, Japan**

1. A Fuzzy-based System for Assessment of Recognition Error in VANETs
Ermioni Qafzezi, Kevin Bylykbashi, Shunya Higashi, Phudit Ampririt, Keita Matsuo, Leonard Barolli
2. An Intelligent System based on Cuckoo Search for Node Placement Problem in WMNs: Tuning of Scale and Host Bird Recognition Rate Hyperparameters
Shinji Sakamoto, Kaho Asakura, Leonard Barolli, Makoto Takizawa
3. Dynamic Spatiotemporal Graph Convolution Network for Cellular Communication Traffic Prediction
Pan Ruifeng
4. Application of Convolutional Neural Network Method with MobileNet V1 and ResNet-152 V2 Architecture in Batik Motif Classification
Aulia Chusnyriani Sani Zulkarnaen, I Gusti Ngurah Rejski Ariantara Putra, Nada Fauzia Reviana, Rahmawati Hidayah, Nur Ibrahim, Nor Kumalasari Caecar Pratiwi, Yunendah Nur Fuadah

BWCCA-S4: Analysis and Protocols for Wireless Communication**Session Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan**

1. Assessment of RIWM and FC-RDVM for Small and Middle Scale WMNs Considering Stadium Distribution and UNDX-M Crossover Method
Leonard Barolli
 2. A New DTN Routing Strategy Considering Age of Information
Fuka Isayama, Tetsuya Shigeyasu
 3. DTN Routing Method based on Records of Data Transmission Paths
Kazunori Ueda, Kouki Yano
 4. Effect of Polarization Loss on Channel Capacity
Trasma Yunita, Chairunnisa, Aloysius Adya Pramudita, Achmad Munir
-

Coffee Break**15:30-16:00 (UTC+9) Korea Standard Time**

Parallel Sessions**16:00-17:30 (UTC+9) Korea Standard Time****09:00-10:30 (UTC+2) CEST Time Zone (Rome, Italy)****BWCCA-S5: Mobile Computing Systems and Social Networks****Session Chair: Naohiro Hayashibara, Kyoto Sangyo University, Japan**

1. Resiliency of the Area-Segmentation in Vehicle Routing for Collecting the Disaster Information
Sanjukta Khwairakpam, Masahiro Shibata, Masato Tsuru
 2. The Probability of Encounters of Nomadic Levy Walk on Unit Disk Graphs
Kazuma Matsubara, Naohiro Hayashibara
 3. Investigating SIC Performance Using Sequential Power Allocation for Downlink NOMA
Hurianti Vidyaningtyas, Iskandar, Hendrawan, Aloysius Adya Pramudita, Desti Madya Saputri
-

4. Proposal for Approaches to Updating Software on Android Smartphone
Ayane Sano, Yukiko Sawaya, Takamasa Isohara, Masakatsu Nishigaki
5. Caching Strategy Utilizing Social Network Analysis Algorithm for Effective Cache Storage Allocation in Named Data Networking
Ridha Muldina Negara, Nana Rachmana Syambas, Eueung Mulyana, Rashid Muhammad Fajri

Reception Party

18:00-20:00 (UTC+9) Korea Standard Time

Thursday, November 9, 2023

BWCCA-2023 Keynote II

10:00-11:00 (UTC+9) Korea Standard Time

03:00-04:00 (UTC+2) CEST Time Zone (Rome, Italy)

BWCCA-2023 Keynote Talk II

Dr. Kaori Yoshida: Toward Human-friendly Information System Design

Coffee Break

11:00-11:30 (UTC+9) Korea Standard Time

Parallel Sessions

11:30-13:00 (UTC+9) Korea Standard Time

04:30-06:00 (UTC+2) CEST Time Zone (Rome, Italy)

BWCCA-S6: Security and Privacy

Session Chair: Leonardo Mostarda, Camerino University, Italy

1. Human Factors Impacting the Security Actions of Help Recipients
Ayane Sano, Yukiko Sawaya, Takamasa Isohara, Masakatsu Nishigaki
 2. Blockchain Application for Fish Origin Certification
Riccardo Petracci, Rosario Culmone, Leonardo Mostarda
 3. Scheme for Selection of Deceptions as a Countermeasure for Insider Threats
Sana Okumura, Tomoya Amagasa, Tsubasa Shibata, Takumi Yamamoto, Tadakazu Yamanaka, Tetsushi Ohki, Masakatsu Nishigaki
 4. Device Classification via Passive Fingerprints with Clustering Algorithm
Masaki Ichino, Naoyuki Masuda, Takahiro Hayashi, Naoki Kodama, Takamichi Saito
 5. A Scheme for Source Location Privacy of Multiple Sources in Wireless Sensor Networks
Sain Saginbekov
-

BWCCA-S7: Next Generation of Wireless and Mobile Networks**Session Chair: Hsing-Chung Chen, Asia University, Taiwan**

1. FSALT: A Fuzzy-based System for Assessment of Logical Trust and Its Performance Evaluation
Shunya Higashi, Phudit Ampririt, Ermioni Qafzezi, Makoto Ikeda, Keita Matsuo, Leonard Barolli
 2. Time Series Mean Normalization for Enhanced Feature Extraction in In-Vehicle Network Intrusion Detection System
Yusupov Kamronbek, Islam Md Rezanur, Insu Oh, Kangbin Yim
 3. Wireless Visual Sensor Node Placement Optimization Considering Different Distributions of Events
Yuki Nagai, Tetsuya Oda, Chihiro Yukawa, Kyohei Toyoshima, Kei Tabuchi, Leonard Barolli
 4. A Music Therapy Model Based on Consortium Blockchain Platform with Evidence and Tracking Efficacy of Hypertension Treatment
Hsing-Chung Chen, Pei-Yu Hsu, Jih-Sheng Su
-

Lunch Break**13:00-14:00 (UTC+9) Korea Standard Time**

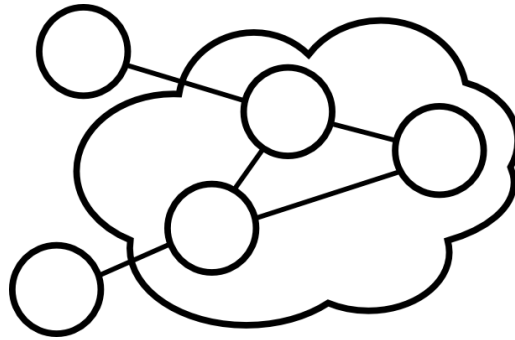
Parallel Sessions**14:00-15:30 (UTC+9) Korea Standard Time**
07:00-08:30 (UTC+2) CEST Time Zone (Rome, Italy)**BWCCA-S8: Cloud, Wireless and e-Commerce Security (CW ECS-2023)****Session Chair: Fang-Yie Leu, Tunghai University, Taiwan**

1. Applying High-quality Test Case Management Mechanisms to Improve Regression Testing Speed and Quality
Sen-Tarnng Lai, Fang-Yie Leu
 2. Case Study in Generating RFC Maps of IETF Standards
Jeng-Wei Lin, Yi-Ting Lin, Fang-Yie Leu
 3. Enhancing Resource Allocation for Cloud Computation Platform with Priority Based Scheduling
Chen Lung Pin, Leu-Fang Yie, Pan Junrui, Chia-Chen Kuo, Ming-Jen Wang
 4. 5G Network Base Station Timeline Scheduling
Yu-Han Chen, Chao-Hsiang Hsu, Heru Susanto, Fang-Yie Leu
-

Coffee Break**15:30-16:00 (UTC+9) Korea Standard Time****Banquet Party****18:00-20:00 (UTC+9) Korea Standard Time**

Friday, November 10, 2023

BWCCA-2023 Organizing Committee Meeting and Discussion



3PGCIC-2023

Main Conference and Workshops Program

Wednesday, November 8, 2023

3PGCIC-2023 Keynote I

10:00-11:00 (UTC+9) Korea Standard Time
03:00-04:00 (UTC+2) CEST Time Zone (Rome, Italy)

3PGCIC-2023 Keynote Talk I

Prof. Seunghyun Park: Secure Connected and Autonomous Vehicles: Research Trends and Challenges

Coffee Break

11:00-11:30 (UTC+9) Korea Standard Time

Parallel Sessions

11:30-13:00 (UTC+9) Korea Standard Time

04:30-06:00 (UTC+2) CEST Time Zone (Rome, Italy)

3PGCIC-S1: Parallel and Distributed Systems

Session Chair: Tomoya Enokido, Risho University, Japan

1. Energy-Efficient Role-Based Concurrency Control with Virtual Machines
Tomoya Enokido, Dilawaer Duolikun, Makoto Takizawa
 2. Scalability Evaluation of Microservices Architecture for Banking Systems in Public Cloud
Amsal Maestro, Nico Surantha
 3. Evaluation of Candidate Pair Generation Strategies in Entity Matching
Kittayaporn Chantaranimi, Juggapong Natwichai
 4. Evaluation of EV Performance by Battery Swapping Strategy
Mayu Hatamoto, Tetsuya Shigeyasu
-

Lunch Break

13:00-14:00 (UTC+9) Korea Standard Time

Parallel Sessions

14:00-15:30 (UTC+9) Korea Standard Time

07:00-08:30 (UTC+2) CEST Time Zone (Rome, Italy)

3PGCIC-S2: Multimedia and Web-based Systems

Session Chair: Hyunhee Park, Myongji University, South Korea

1. Citation Estimation Method Using Abstracts of Research Data Articles: A focus on Scientific Data
Naoto Kai, Tomoki Yoshihisa, Toshiki Shimbaru, Hideto Yano, Hideyuki Tanushi
 2. Enhancing Image Classification and Explainability with Object Isolation and Background Randomization
Yongho Kim, Hyunhee Park
 3. Can ChatGPT Outperform Other Language Models? An Experiment on Using ChatGPT for Entity Matching Versus Other Language Models
Nontakan Nuntachit, Prompong Sugunnasil
 4. Blockchain and IoT Integration for Air Pollution Control
Alessandro Bigiotti, Leonardo Mostarda, Alfredo Navarra
-

Coffee Break

15:30-16:00 (UTC+9) Korea Standard Time

Parallel Sessions

16:00-17:30 (UTC+9) Korea Standard Time
09:00-10:30 (UTC+2) CEST Time Zone (Rome, Italy)

3PGCIC-S3: Multimedia and Virtual Reality Applications

Session Chair: Tomoyuki Ishida, Fukuoka Institute of Technology, Japan

1. Development of a Piano Practice System for Beginners Using Mixed Reality Technology
Tomoyuki Ishida, Haruna Inutsuka
2. Development of a Traditional Craft Virtual Reality System for Mikawachi Ware/Hasami Ware
Tomoyuki Ishida, Aya Deguchi
3. Development of an AR Application for Learning Traditional Patterns
Naho Kuriya, Tomoyuki Ishida
4. A Video Scene Segmentation Approach for Learner Monitoring
Kaoru Sugita

3PGCIC-S4: AI and Intelligent Computing

Session Chair: Makoto Ikeda, Fukuoka Institute of Technology, Japan

1. An AI-Based Support System for Left-Behind Children Detection in Vehicles
Hibiki Tanaka, Naoki Tanaka, Shoei Sakano, Makoto Ikeda, Leonard Barolli
2. Design and Implementation of a Fuzzy-based Testbed for Selection of Radio Access Technologies in 5G Wireless Networks
Phudit Ampririt, Shunya Higashi, Ermioni Qafzezi, Makoto Ikeda, Keita Matsuo, Leonard Barolli
3. Classification of Steel Microstructure Image Using CNN
Shigeru Kato, Akiko Oshita, Tsubasa Kubo, Mitsuharu Todai
4. Performance Evaluation of FC-RDVM Router Replacement Method for Different Instances of WMNs Considering Subway Distribution: A Comparison Study Between UNDX-m and SPX Crossover Methods
Admir Barolli, Leonard Barolli, Shinji Sakamoto, Makoto Takizawa

Reception Party

18:00-20:00 (UTC+9) Korea Standard Time

Thursday, November 9, 2023**3PGCIC-2023 Keynote II****10:00-11:00 (UTC+9) Korea Standard Time****03:00-04:00 (UTC+2) CEST Time Zone (Rome, Italy)****3PGCIC-2023 Keynote Talk II****Dr. Kaori Yoshida:** Toward Human-friendly Information System Design

Coffee Break**11:00-11:30 (UTC+9) Korea Standard Time**

Parallel Sessions**11:30-13:00 (UTC+9) Korea Standard Time****04:30-06:00 (UTC+2) CEST Time Zone (Rome, Italy)****3PGCIC-S5: Simulation and Modelling of Engineering & Computational Systems****Session Chair: Leonard Barolli, Fukuoka Institute of Technology, Japan**

1. Portable Containerized MPI Application Using UCX Replacement Method
Sorawit Manatura, Kohei Ichikawa, Chantana Chantrapornchai, Chawanat Nakasan, Pattara Leelaprute, Arnon Rungsawang, Bundit Manaskasemsak
 2. Selection of Reliable Best Peer in a Group of Peers by Using Correlation Coefficients and ns-3 Simulator
Yi Liu, Shinji Sakamoto, Leonard Barolli
 3. An Intelligent Mixing System for Electric Guitar Using Fuzzy Control
Genki Moriya, Tetsuya Oda, Kyohei Toyoshima, Yuki Nagai, Sora Asada, Leonard Barolli
 4. Construction of 1553B Bus Based on FPGA and Its Application
Jing Zhang
-

Lunch Break**13:00-14:00 (UTC+9) Korea Standard Time**

Parallel Sessions**14:00-15:30 (UTC+9) Korea Standard Time****07:00-08:30 (UTC+2) CEST Time Zone (Rome, Italy)**

3PGCIC-S6: Signal Processing and Machine Learning (SiPML-2023)**Session Chair: Ricardo Rodriguez Jorge, JEP University, Czech Republic**

1. Evaluation of the Timber Internal Crack Using CNN
Renon Toyosaki, Shigeru Kato, Takashi Tamaki, Naoki Wada, Tomomichi Kagawa, Kazuki Shiogai, Hajime Nobuhara
2. Centroid Tuple Loss for Person Re-Identification
Viet Duc Bui, Masao Kubo, Hiroshi Sato
3. Comparative Study of Metaheuristic Methods Inspired by the Prey House Mechanisms
Jesús C. Carmona-Frausto, Adriana Mexicano, Pascual Montes, José-Antonio Cervantes, Deysi Y. Alvarez
4. A Tool for Solving the CVRP Problem by Applying the Tabu Search Algorithm
Adriana Mexicano, Jesús C. Carmona-Frausto, Deysi Y. Alvarez, Pascual Montes, Salvador Cervantes
5. A Comparative Study for Rate Allocation in Multi-source Systems with Same Rate Stream
Francisco de Asis Lopez Fuentes

3PGCIC-S7: IoT Networks and Mobile Computing**Session Chair: Donald Elmazi, Tirana Metropolitan University, Albania**

1. A Model of an Energy-aware IoT
Dilawaer Duolikun, Tomoya Enokido, Makoto Takizawa
2. Implementation and Optimization of Narrow-Band Internet of Things (NB-IoT) Nodes Coverage Using Doppler Effect Shift Chips
Donald Elmazi, Fatjon Mehmeti, Elis Kulla
3. A Motion Analysis System for Pointing and Calling Considering Safety Checks for Soldering Work
Kyohei Toyoshima, Chihiro Yukawa, Yuki Nagai, Yuma Yamashita, Tetsuya Oda, Leonard Barolli
4. An Integrated Energy Threshold and Priority Forwarding Approach to Improve Delivery Probability in Delay Tolerant Networks
Evjola Spaho, Orjola Jaupi, Frensi Muso, Esmeralda Shehu, Eri Kanani and Fatjon Zeqiraj

Coffee Break**15:30-16:00 (UTC+9) Korea Standard Time**

Dinner Party**18:00-20:00 (UTC+9) Korea Standard Time**

Friday, November 10, 2023**3PGCIC-2023 Organizing Committee Meeting and Discussion**

**Hybrid Meeting Schedule for BWCCA-2023 and 3PGCIC-2023
November 8 - 10, 2023**

1 st day: Wednesday, 8 November, 2023	Room #1 Meeting ID: 989 6352 0458		Room #2 Meeting ID: 875 7409 2174		Room #3 Meeting ID: 821 7671 5599	
	Session title	Session chair	Session title	Session chair	Session title	Session chair
Slot 1 10:00-11:00 (UTC+9) Korea Standard Time 03:00-04:00 (UTC+2) CEST Time Zone (Rome, Italy)	BWCCA-2023 and 3PGCIC-2023 Keynote #1: Prof. Seunghyun Park Meeting ID: 989 6352 0458					
Coffee Break 11:00-11:30 (UTC+9) Korea Standard Time	Coffee Break					
Slot 2 11:30-13:00 (UTC+9) Korea Standard Time 04:30-06:00 (UTC+2) CEST Time Zone (Rome, Italy)	BWCCA-S1	Keita Matsuo, Japan	BWCCA-S2	Yoshihiro Okada, Japan	3PGCIC-S1	Tomoya Enokido, Japan
Lunch 13:00-14:00 (UTC+9) Korea Standard Time	Lunch Break					
Slot 3 14:00-15:30 (UTC+9) Korea Standard Time 07:00-08:30 (UTC+2) CEST Time Zone (Rome, Italy)	BWCCA-S3	Shinji Sakamoto, Japan	BWCCA-S4	Leonard Barolli, Japan	3PGCIC-S2	Hyunhee Park, South Korea
Coffee Break 15:30-16:00 (UTC+9) Korea Standard Time	Coffee Break					
Slot 4 16:00-17:30 (UTC+9) Korea Standard Time 09:00-10:30 (UTC+2) CEST Time Zone (Rome, Italy)	BWCCA-S5	Naohiro Hayashibara, Japan	3PGCIC-S3	Tomoyuki Ishida, Japan	3PGCIC-S4	Makoto Ikeda, Japan
Social Event 18:00-20:00 (UTC+9) Korea Standard Time	Welcome Reception Party					
2 nd day: Thursday, 9 November, 2023	Room #1 Meeting ID: 989 6352 0458		Room #2 Meeting ID: 875 7409 2174		Room #3 Meeting ID: 821 7671 5599	
	Session title	Session chair	Session title	Session chair	Session title	Session chair
Slot 1 10:00-11:00 (UTC+9) Korea Standard Time 03:00-04:00 (UTC+2) CEST Time Zone (Rome, Italy)	BWCCA-2023 and 3PGCIC-2023 Keynote #2: Dr. Kaori Yoshida Meeting ID: 989 6352 0458					
Coffee Break 11:00-11:30 (UTC+9) Korea Standard Time	Coffee Break+B43:G65					
Slot 2 11:30-13:00 (UTC+9) Korea Standard Time 04:30-06:00 (UTC+2) CEST Time Zone (Rome, Italy)	BWCCA-S6	Leonardo Mostarda, Italy	BWCCA-S7	Hsing-Chung Chen, Taiwan	3PGCIC-S5	Leonard Barolli, Japan
Lunch 13:00-14:00 (UTC+9) Korea Standard Time	Lunch Break					
Slot 3 14:00-15:30 (UTC+9) Korea Standard Time 07:00-08:30 (UTC+2) CEST Time Zone (Rome, Italy)	BWCCA-S8 (CWECs-2023)	Fang-Yie Leu, Taiwan	3PGCIC-S6 (SIPML-2023)	Ricardo Rodriguez Jorge, Czech Republic	3PGCIC-S7	Donald Elmazi, Albania
Coffee Break 15:30-16:00 (UTC+9) Korea Standard Time	Coffee Break					
Social Event 18:00-20:00 (UTC+9) Korea Standard Time	Banquet Party					
3rd day: Friday, 10 November, 2023	BWCCA-2023 and 3PGCIC-2023: Steering Committee Meeting and Discussion					

Conference Venue

Conference Venue: Daegu EXCO Convention Center, Daegu, Korea.

West Wing

Registration desk: 3rd floor

Conference rooms: 320-A, 320-B and 321-A

Address: South Korea, Daegu, Buk-gu, Excoro 10

Contact Number: +82 53-601-5000

Map link: <https://goo.gl/maps/euULbPpNANdVJSBv7>

How to Travel to/from Daegu EXCO Convention Center (By car)

- 15 min to KTX train station.
- 10 min to Daegu International Airport.
- 20 min to Downtown.
- 1 min to North Daegu IC