PROGRAM GUIDE

NBiS-2022

The 25-th International Conference on

Network-Based Information Systems

and

INCoS-2022

The 14-th International Conference on

Intelligent Networking and Collaborative Systems

Virtual Conference (Online Presentation)

September 7th - September 9th, 2022

Technically Co-sponsored by:

Kwansei Gakuin University, Japan

Fukuoka Institute of Technology

Japan

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Welcome Message from NBiS-2022 Organizing Committee

We would like to welcome you to the 25th International Conference on Network-Based Information Systems (NBiS-2022), which is held from September 7th to September 9th, 2022.

The main objective of NBiS is to bring together scientists, engineers, and researchers from both network systems and information systems with the aim of encouraging the exchange of ideas, opinions, and experiences between these two communities.

NBiS is one of the important conferences in the field. Extensive international participation, coupled with rigorous peer reviews, has made this an exceptional technical conference. The Technical Program and Workshops add important dimensions to this event. We hope that you will enjoy each and every component of this event and benefit from interactions with other attendees.

Since its inception, NBiS has attempted to bring together people interested in information and networking, in areas that range from the theoretical aspects to the practical design of new network systems, distributed systems, multimedia systems, Internet/web technologies, mobile computing, intelligent computing, pervasive/ubiquitous networks, dependable systems, semantic services, and scalable computing. For NBiS-2022, we have continued these efforts as novel networking concepts emerge and new applications flourish. In this edition of NBiS, many papers were submitted from all over the world. They were carefully reviewed and only high quality papers will be presented during conference days.

The organization of an international conference requires the support and help of many people. A lot of people have helped and worked hard for a successful NBiS-2022 technical program and conference proceedings. First, we would like to thank all the authors for submitting their papers. We are indebted to Track Co-Chairs, Program Committee members and reviewers who carried out the most difficult work of carefully evaluating the submitted papers.We would like to express our great appreciation to our keynote speakers for accepting our invitation as keynote speakers of NBiS-2022.

We hope that you have an enjoyable and productive time during the conference.

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Leonard Barolli, Fukuoka Institute of Technology, Japan

Welcome Message from the INCoS-2022 Organizing Committee

Welcome to the 14th International Conference on Intelligent Networking and Collaborative Systems (INCoS-2022), which is held from September 7th to September 9th, 2022.

INCoS is a multidisciplinary conference that covers latest advances in intelligent social networks and collaborative systems, intelligent networking systems, mobile collaborative systems, secure intelligent cloud systems, etc. Additionally, the conference addresses security, authentication, privacy, data trust and user trustworthiness behaviour, which have become crosscutting features of intelligent collaborative systems. With the fast development of the Internet, we are experiencing a shift from the traditional sharing of information and applications as the main purpose of the networking systems to an emergent paradigm, which locates people at the very centre of networks and exploits the value of people's connections, relations and collaboration. Social networks are playing a major role as one of the drivers in the dynamics and structure of intelligent networking and collaborative systems.

Virtual campuses, virtual communities and organizations strongly leverage intelligent networking and collaborative systems by a great variety of formal and informal electronic relations, such as business-to-business, peer-to-peer and many types of online collaborative learning interactions, including the virtual campuses and eLearning systems. Altogether, this has resulted in entangled systems that need to be managed efficiently and in an autonomous way. In addition, the conjunction of the latest and powerful technologies based on Cloud, mobile and wireless infrastructures are currently bringing new dimensions of collaborative and networking applications a great deal by facing new issues and challenges.

The aim of this conference is to stimulate research that will lead to the creation of responsive environments for networking and the development of adaptive, secure, mobile, and intuitive intelligent systems for collaborative work and learning.

The successful organization of the conference is achieved thanks to the great collaboration and hard work of many people and conference supporters. First, we would like to thank all the authors for their continued support to the conference by submitting their research work to the conference, for their presentations and discussions during the conference days. We would like to thank PC Co-Chairs, Track Co-chairs, TPC members and external reviewers for their work by carefully evaluating the submissions and providing constructive feedback to authors.

We would like to acknowledge the excellent work and support by the International Advisory Committee. Our gratitude and acknowledgment for the conference keynotes for their interesting and inspiring keynote speeches.

We greatly appreciate the support by Web Administrator Co-Chairs. We are very grateful to Springer as well as several academic institutions for their endorsement and assistance.

Finally, we hope that you will find these proceedings to be a valuable resource in your professional, research and educational activities.

NBiS-2022 & INCoS-2022 Keynote I

Prof. Masaki Aida, Tokyo Metropolitan University, Japan

Fundamental Model of Online User Dynamics Based on a Causal Framework

Abstract: User dynamics in online social networks have come to have a great impact not only on online society but also on real life. Therefore, understanding online user dynamics is an important issue. Of course, it is difficult to understand all of the complex online user dynamics, but it may be possible to describe their characteristics in a particular way. This talk introduces an attempt to give a mathematical model of online user dynamics based on a causal framework in which the mutual influences working between users are propagated at finite speeds via an online social network. This model can theoretically explain various phenomena including the intensity of user dynamics diverges, such as online flaming phenomena, and the phenomenon that information propagation is restricted only within a specific community, such as polarization.

NBiS-2022 & INCoS-2022 Keynote II

Prof. Carson K. Leung, University of Manitoba, Canada

Big Data Analytics on COVID-19 Epidemiological Data

Abstract: In the current era of big data, high volume of big data can be generated and collected from a wide variety of rich data sources at a rapid rate. Embedded in these big data are useful information and valuable knowledge. Examples include healthcare and epidemiological data such as data related to patients who suffered from viral diseases like the coronavirus disease 2019 (COVID-19). Knowledge discovered from these epidemiological data via data science helps researchers, epidemiologists, and policy makers to get a better understanding of the disease, which may inspire them to come up ways to detect, control and combat the disease. This talk presents big data analytics solutions for analyzing COVID-19 epidemiological data. The solutions help users to get a better understanding of information about COVID-19 cases. Evaluation on real-life COVID-19 data across Canadian provinces show the benefits of big data analytics in discovering useful knowledge from COVID-19 epidemiological data.

NBiS-2022

Main Conference and Workshops Program

Wednesday, September 7, 2022

Parallel Sessions

13:00-14:30 (Japan time zone: UTC+9)
06:00-07:30 (CEST Time Zone (Rome, Italy): UTC+2)
21:00-22:30 (Pacific Daylight Time (Victoria, CA): UTC-7 - 1 day)

NBiS-S1: Secure Systems and Applications

Session Chair: Arjan Durresi, IUPUI, USA

1. Trustworthy AI Explanations as an Interface in Medical Diagnostic Systems
   Davinder Kaur, Suleyman Uslu and Arjan Durresi

2. Conceptual Framework of Blockchain Technology Adoption in Saudi Public Hospitals Using TOE Framework
   Adel Khwaji, Yaser Alsahafi and Farookh Khadeer Hussain

3. Multi-Observed Multi-Factor Authentication: A Multi-Factor Authentication Using Single Credential
   Shinnosuke Nozaki, Ayumi Serizawa, Mizuho Yoshihira, Masahiro Fujita, Yoichi Shibata, Tadakazu Yamanaka, Nori Matsuda, Tetsushi Ohki and Masakatsu Nishigaki

4. Fog Computing Models for the Information Flow Control
   Shigenari Nakamura, Tomoya Enokido, and Makoto Takizawa

INWC-S1: Mobile Computing and Communication

Chair: Makoto Ikeda, Fukuoka Institute of Technology, Japan

1. An Enhanced Adaptive Anti-packet Recovery Method for Inter-vehicle Communications
   Shota Uchimura, Masaya Azuma, Makoto Ikeda and Leonard Barolli

2. Reliability Evaluation of Predicted Precipitation Data Provided by AMeDAS and Its Applicability for Quality Improvement of Satellite Links
   Kiyotaka Fujisaki and Shunsuke Tamura

3. A Wireless Sensor Network Testbed for Monitoring a Water Reservoir Tank: Experimental Results of Delay and Temperature Prediction by LSTM
   Yuki Nagai, Aoto Hirata, Chihiro Yukawa, Kyohei Toyoshima, Tomoya Yasunaga, Tetsuya Oda, Leonard Barolli

4. Numerical Analysis of Photonic Crystal Waveguide with Fork-shaped Branch
   Hiroshi Maeda

5. Wireless Communication Channel Purification for Urban Utility Tunnel based on Sector Pattern Antenna Array
   Qi Wei, Cheng Zhong, Pengcheng Lu, Guangxiang Jin, Jiangsheng Li, Min Liu, Mengxi Zhang, Yudong Wang, Guohui Zou and Zhihong Xiao

Parallel Sessions

15:00-16:30 (Japan time zone: UTC+9)
08:00-09:30 (CEST Time Zone (Rome, Italy): UTC+2)
23:00-00:30 (Pacific Daylight Time (Victoria, CA): UTC-7 - 1 day)

NBiS-S2: Distributed Systems and Protocols

Session Chair: Naohiro Hayashibara, Kyoto Sangyo University, Japan

1. A Negotiation Protocol among Servers for Virtual Machines to Migrate to Reduce the Energy Consumption
   Dilawaer Duolikun, Tomoya Enokido and Makoto Takizawa

2. Energy-Efficient Multi-Version Concurrency Control (EEMVCC) for Object-Based Systems
   Tomoya Enokido, Dilawaer Duolikun and Makoto Takizawa

3. Soldering Danger Detection System Using a Line-of-Sight Estimation
   Tomoya Yasunaga, Kyohei Toyoshima, Chihiro Yukawa, Yuki Nagai, Tomoaki Matsui, Tetsuya Oda, Leonard Barolli

4. The Probability of Encounters of Mutual Search using Lévy Walk on Unit Disk Graphs
   Chisato Nishigami and Naohiro Hayashibara

DEMoC-S1: Data Engineering and Mobile Computing

Session Chair: Yusuke Gotoh, Okayama University, Japan

1. GPU-accelerated Reverse k-nearest Neighbor Search for High-dimensional Data
   Kyohei Tsuihiji, Toshiyuki Amagasa

2. Pre-cache Methods for Accommodating More Clients in Edge-Assisted Video-on-Demand Systems
   Kaku Minowa and Tomoki Yoshihisa

3. Method for Exploring Travel Routes Based on Cycle Ports in Bike-sharing System
   Yusuke Gotoh and Hiroka Hori

4. Proposal of Rescue Drone for Locating Indoor Survivors in the Event of Disaster
   Zongming Zhang and Takahiro Uchiya

5. A Method for Taking Snapshots of Host Environment Using Containerization Technology
   Takayoshi Miyake and Yoshinari Nomura

Parallel Sessions

17:00-18:30 (Japan time zone: UTC+9)
10:00-11:30 (CEST Time Zone (Rome, Italy): UTC+2)
01:00-02:30 (Pacific Daylight Time (Victoria, CA): UTC-7)

NBiS-S3: Data Management and Multimedia Applications

Session Chair: Hsing-Chung Chen, Asia University, Taiwan

1. An Incentive Framework for Surplus Food Distribution in the Context of Smart Cities
   Surja Sanyal, Sajal Mukhopadhyay, Fatos Xhafa, Vikash Kumar Singh and Banhi Sanyal

2. Data Architecture for Data-Driven Service Platform: Royal Project Foundation Case Study
   Suphatchaya Autarrom, Kittayaporn Chantaranimi, Chanwit Chanton, Anchan Chompupoung, Pichan Jinapook, Waranya Mahanan, Pathathai Na Lumpoon, Juggapong Natwichai, Nontakan Nuntachit, Nitchanan Prapaitrakul, Rattasit Sukhahuta, Prompong Sugunsil, Sumalee Sangamuang, Titipat Sukhvibul, Pree Thiengburanathum

3. Human-AI Protocols for Cloud Data Management
   Urszula Ogiela, Makoto Takizawa and Marek R. Ogiela

4. Envy-free Trip Planning in Group Trip Planning Query Problem
   Mayank Singhal and Suman Banerjee

5. An AOI-based Surface Defect Detection Approach Applied to Woven Fabric Production Process
   Wei-Chun Hsu, Hsing-Chung Chen, Kai-Ming Uang and Yong-Hong Lin

ADPNA-S1: Distributed Systems and Applications

Chair: Tomoya Enokido, Rissho University, Japan

1. Evaluation of a Fuzzy-based Robotic Vision System for Recognizing Micro-roughness on Arbitrary Surfaces: A Comparison Study for Vibration Reduction of Robot Arm
   Chihiro Yukawa, Nobuki Saito, Tomoya Yasunaga, Yuki Nagai, Kyohei Toyoshima, Tetsuya Oda, Leonard Barolli

2. Location Management Method for Students on Campus Using Smartphones for Health and Safety
   Iyori Honma, Yuya Sawano, Takuya Watanabe, Ryozo Kiyohara

3. Common Factor Analysis of Information Security Incidents based on Psychological Factors
   Shigeaki Tanimoto, Takumi Suzuki, Takashi Hatashima and Atsushi Kanai

4. Detection and Analysis of Intrusion Attacks using Deep Neural Networks
   Atsushi Takeda

5. DTN Routing Method based on Node Movement Prediction and Message Deliverability
   Kazunori Ueda

NBiS-2022 Keynote I

19:00-20:00 (Japan time zone: UTC+9)
12:00-13:00 (CEST Time Zone (Rome, Italy): UTC+2)
03:00-04:00 (Pacific Daylight Time (Victoria, CA): UTC-7)

NBiS-2022 Keynote Talk I

Prof. Masaki Aida: Fundamental Model of Online User Dynamics Based on a Causal Framework

Thursday, September 8, 2022

NBiS-2022 Keynote II

11:00-12:00 (Japan time zone: UTC+9)
04:00-05:00 (CEST Time Zone (Rome, Italy): UTC+2)
19:00-20:00 (Pacific Daylight Time (Victoria, CA): UTC-7 - 1 day)

NBiS-2022 Keynote Talk II

Prof. Carson K. Leung: Big Data Analytics on COVID-19 Epidemiological Data

Parallel Sessions

13:00-14:30 (Japan time zone: UTC+9)
06:00-07:30 (CEST Time Zone (Rome, Italy): UTC+2)
21:00-22:30 (Pacific Daylight Time (Victoria, CA): UTC-7 - 1 day)

NBiS-S4: Intelligent and Web Computing

Session Chair: Isaac Woungang, Toronto Metropolitan University, Canada

1. Performance Comparison of FC-RDVM and RDVM Router Replacement Methods by WMN-PSOHC Simulation System Considering Different Instances
   Shinji Sakamoto, Admir Barolli, Yi Liu, Elis Kulla, Leonard Barolli and Makoto Takizawa

2. Improvement of NMR-Reduction Method by Local Search for Optimization of Number of Mesh Routers in WMNs
   Aoto Hirata, Yuki Nagai, Tomoya Yasunaga, Kyohei Toyoshima, Chihiro Yukawa, Tetsuya Oda, Leonard Barolli

3. Channel Allocation in Cognitive Radio Networks: A Game-Theoretic Approach
   Vinesh Kumar, Sanjay Kumar Dhurandher, Isaac Woungang, Shashank Gupta, Surajpratap Singh

4. A Fuzzy-based System for Handover in 5G Wireless Networks Considering Different Network Slicing Constraints: Effects of Slice Load Parameter on Handover Decision
   Phudit Ampririt, Ermioni Qafzezi, Kevin Bylykbashi, Makoto Ikeda, Keita Matsuo, Leonard Barolli

5. Investigating Moral Foundations from Web Trending Topics
   Jean Marie Tshimula, Belkacem Chikhaoui and Shengrui Wang

WSSM-S1: Multimedia Applications

Chair: Jun Iio, Chuo University, Japan

1. What Kind of Restroom Sign Image is Preferred?
   Jun Iio

2. Web Application with Built-in Remote Support Capability by Means of Voice Communication and Screen Sharing
   Shinya Nakamura, Michitoshi Niibori and Masaru Kamada

3. Constructing a Client Certificate Distribution System
   Yasuhiro Ohtaki and Kazuyuki Yamamoto

4. Constructing Opaque Predicate using Homomorphic Encryption
   Yohsuke Hirano, Yasuhiro Ohtaki

5. Evaluation of Information Aggregation Performance of PPN-Integrated Networks by Changing the Interval for Input Part Switching
   Yudai Okui, Tatsuhiro Yonekura and Masaru Kamada

Parallel Sessions

15:00-16:30 (Japan time zone: UTC+9)
08:00-09:30 (CEST Time Zone (Rome, Italy): UTC+2)
23:00-00:30 (Pacific Daylight Time (Victoria, CA): UTC-7 - 1 day)

NBiS-S5: Wireless Networks and Mobile Communication Systems

Session Chair: Yoshitaka Shibata, Iwate Prefectural University, Japan

1. Performance Evaluation of V2X Communication based on 2-Wavelength Wireless Link Method
   Yoshitaka Shibata and Akira Sakuraba

2. Tactical Alignment of Aerial Transmission Laser Beam for Free Space Optics Communication
   Kota Watanabe, Takuto Koyama, Hiroshi Koga, Kiyotaka Izumi, Takeshi Tsujimura

3. A Fuzzy-Based System for Determining Driver Impatience in VANETs Considering Number of Forced Stops, Unnecessary Maneuvers, Time Pressure and Task Importance
   Kevin Bylykbashi, Ermioni Qafzezi, Phudit Ampririt, Admir Barolli, Elis Kulla, Leonard Barolli

4. Effect of Transporter Autonomous Underwater Vehicles for Underwater Optical Wireless Communication Considering Delay Tolerant Networks
   Keita Matsuo, Elis Kulla and Leonard Barolli

WSSM-S2: Web-based Systems and Applications

Chair: Shusuke Okamoto, Seikei University, Japan

1. Implementation of Interactive Tutorial for IslayTab by Restricting and Highlighting the DOM Node to Tap
   Riku Takano, Michitoshi Niibori, Yudai Okui, Masaki Kohana, Shusuke Okamoto and Masaru Kamada

2. QoE Metrics in Real-Time Web Games
   Kaoru Shiotsu, Yoshihiro Kawano, Yoichi Murakami, Dai Hanawa, Masaki Hanada, Eiji Nunohiro

3. Analysis of Learning-data for Feedback System in Programming Classrooms
   Yoshihiro Kawano, Yoshiha Goto, Yuka Kawano

4. Web Game Development Tool for Learning Communication Functions for Beginners Networked Game Developers
   Yu Osuga, Yoshihiro Kawano, Yoichi Murakami, Dai Hanawa, Masaki Hanada and Eiji Nunohiro

5. Detecting Features for a Music Retrieval System
   Yuya Tanaka, Shusuke Okamoto and Shinji Sakamoto

Parallel Sessions

17:00-18:30 (Japan time zone: UTC+9)
10:00-11:30 (CEST Time Zone (Rome, Italy): UTC+2)
01:00-02:30 (Pacific Daylight Time (Victoria, CA): UTC-7)

INVITE-S1: Multimedia Applications

Chair: Tomoyuki Ishida, Fukuoka Institute of Technology, Japan

1. Implementation of an English Word Learning AR Application for Infant English Education
   Momoka Hagihara and Tomoyuki Ishida

2. Implementation of a Mixed Reality System for the Development of Traditional Crafts Industries
   Reiya Yahada and Tomoyuki Ishida

3. A Study on Driving Characteristics of Automobiles from Overhead View
   Hideo Miyachi and Takumi Hoashi

4. Necessary Requirements of Avatars for Remote Communication in Real Space
   Yuki Kida, Kei Matsuoka and Tetsuro Ogi

5. Implementation and Evaluation on Smooth On-line Communication System using Multi-camera
   Shinya Takahashi and Yasuo Ebara

Friday, September 9, 2022

NBiS-2022 Organizing Committee Meeting and Discussion

INCoS-2022
Main Conference and Workshops Program

Wednesday, September 7, 2022

Parallel Sessions

13:00-14:30 (Japan time zone: UTC+9)
06:00-07:30 (CEST Time Zone (Rome, Italy): UTC+2)
21:00-22:30 (Pacific Daylight Time (Victoria, CA): UTC-7 - 1 day)

WIND-S1: Information Network Design

Session Chair: Masato Tsuru, Kyushu Institute of Technology, Japan

1. Algorithms for Path Planning and Scheduling of Automated Guided Vehicles Iteratively Carrying Objects
   Sumihiro Yoneyama, Hiroyoshi Miwa

2. A P4 BMv2-based Feasibility Study on a Dynamic In-band Control Channel for SDN
   Kazumi Kumazoe, Masahiro Shibata, Masato Tsuru

3. Fungi Network Simulation for the Study of Communication System
   Nurdiansyah Sirimorok, Rio Mukhtarom Paweroi, Andi Arniaty Arsyad, Mario Köppen

4. Resource Allocation Method for Fairness and Efficient Utilization of Network and Computational Resources in Edge Networks
   Shota Akiyoshi, Yuzo Taenaka, Kazuya Tsukamoto, Myung Lee

5. A Comprehensive Analysis of Machine Learning-based Intrusion Detection System for IoT-23 Dataset
   Yang G. Kim, Kazi J. Ahmed, Myung J. Lee, Kazuya Tsukamoto

Parallel Sessions

15:00-16:30 (Japan time zone: UTC+9)
08:00-09:30 (CEST Time Zone (Rome, Italy): UTC+2)
23:00-00:30 (Pacific Daylight Time (Victoria, CA): UTC-7 - 1 day)

INCoS-S1: Big Data Analytics and Context-Aware Systems

Session Chair: Juggapong Natwichai, Chiang Mai University, Thailand

1. The Emerging Challenges of Big Data Lakes, and a Real-Life Framework for Representing, Managing and Supporting Machine Learning on Big Arctic Data
   Alfredo Cuzzocrea, Carson K. Leung, Selim Soufargi, Anifat M. Olawoyin

2. Data Ingestion for Data-Driven Service Platform: Royal Project Foundation Case Study
   Suphatchaya Autarrom, Kittayaporn Chantaranimi, Chanwit Chanton, Anchan Chompupoung, Pichan Jinapook, Waranya Mahanan, Pathathai Na Lumpoon, Juggapong Natwichai, Nontakan Nuntachit, Nitchanan Prapaitrakul, Rattasit Sukhahuta, Prompong Sugunnsil, Sumalee Sangamuang, Titipat Sukhvibul, Pree Thiengburanathum

3. A Study on an Autonomous Adaptive Mechanism for the Robustness of the User's Location-Aware Resource Assignment against Demand Fluctuation
   Keita Tatebe, Yusuke Sakumoto

4. Chatbot at University, a Communication Tool to Increase Work Productivity
   Dorota Košecka, Peter Balco, Sharon Cherono Murgor

5. Personalized Security Solutions in Dispersed Computing
   Urszula Ogiela, Marek R Ogiela

6. Data Analytics for Parking Facility Management
   Deyu Deng, Carson K. Leung, Adam G.M. Pazdor

MIDAP-S1: Medical Data Analysis and Intelligent Systems

Session Chair: Jana Nowaková, VSB - Technical University of Ostrava, Czech Republic

1. Impact of Chest X-ray Images Enhancement to COVID-19 Classification Using Vector Quantization and Fuzzy S-tree
   Vojtěch Uher, Jana Nowaková

2. Simple Approach for Dynamics Evaluation of Scratch Wound Healing Assay
   Markéta Vašinková, Michal Krumnikl, Zuzana Mikulková, Petr Gajdoš, Eva Kriegová

3. Restriction Site Detection in Optical Mapping Data
   Vít Doleží, Petr Gajdoš, Marek Běhálek, Michal Vašinek

4. Driver Response Time and Behavior Profiles Extracted from Sugeno Fuzzy Models by the Louvain Network Clustering
   Martin Radvansky, Jr., Martin Radvansky, Milos Kudelka, Miroslav Jirgl

5. A Neural System for Acute Disease Detection from Facial Images
   Radovan Fusek, Pavel Krömer

6. Image Enhancement in Retinopathy of Prematurity
   Martin Hasal, Jana Nowaková, Daniel Hernández-Sosa, Juraj Timkovič

Parallel Sessions

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10:00-11:30 (CEST Time Zone (Rome, Italy): UTC+2)
01:00-02:30 (Pacific Daylight Time (Victoria, CA): UTC-7)

INCoS-S2: Data Mining and Data Management

Session Chair: Pavel Krömer, VSB - Technical University of Ostrava, Czech Republic

1. Self-Positioning Method Based on Similarity Between Environmental Map and Information of Image and Point Cloud
   Hitoshi Kuwamura, Toru Ide, Hiroyoshi Miwa

2. Fake Listing or Truth? Using Pre-trained Deep Learning Model with Data Augmentation to Detect the Imposter
   Nontakan Nuntachit, Prompong Sugunnasil, Rattasit Sukhahuta

3. OCR Error Correction for Vietnamese OCR Text with Different Edit Distances
   Quoc-Dung Nguyen, Nguyet-Minh Phan, Pavel Krömer

4. CoPoi: A Collaborative Framework to Optimize the Approach Towards Points of Interest
   Walter Balzano, Davide Pio Faicchia, Silvia Stranieri

BDS-S1: Intelligent Algorithms and Semantic Networks

Session Chair: Marcello Trovati, Edge Hill University, United Kingdom

1. Experimental Results of a Haptics Based Soldering Education System: A Comparison Study of RNN and LSTM for Detection of Dangerous Movements
   Kyohei Toyoshima, Tomoya Yasunaga, Yuki Nagai, Chihiro Yukawa, Tomoaki Matsui, Tetsuya Oda, Leonard Barolli

2. Semantic Network: A Brief Review of its Datasets
   Marcello Trovati, Suleman Awan

3. Sentiment Analysis: A General Review and Comparison
   Tariq Soussan, Marcello Trovati

4. A Simple Information Compression Algorithm for Directed Paths in Large Semantic Networks
   Marcello Trovati, Suleman Awan

INCoS-2022 Keynote I

19:00-20:00 (Japan time zone: UTC+9)
12:00-13:00 (CEST Time Zone (Rome, Italy): UTC+2)
03:00-04:00 (Pacific Daylight Time (Victoria, CA): UTC-7)

INCoS-2022 Keynote Talk I

Prof. Masaki Aida: Fundamental Model of Online User Dynamics Based on a Causal Framework

Thursday, September 8, 2022

INCoS-2022 Keynote II

11:00-12:00 (Japan zone: UTC+9)
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19:00-20:00 (Pacific Daylight Time (Victoria, CA): UTC-7 - 1 day)

INCoS-2022 Keynote Talk II

Prof. Carson K. Leung: Big Data Analytics on COVID-19 Epidemiological Data

Parallel Sessions

13:00-14:30 (Japan time zone: UTC+9)
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21:00-22:30 (Pacific Daylight Time (Victoria, CA): UTC-7 - 1 day)

INCoS-S3: Mobile and Wireless Networking

Session Chair: Hiroyoshi Miwa, Kwansei Gakuin University, Japan

1. User's Emotion Profiling in Web Browsing Behavior
   Yusuke Yoshida, Kana Masuda, Kosuke Takano, Kin Fun Li

2. Stochastic Computing-based Baseband Processing for Resource Constraint IoT Devices
   Kazi Ahmed, Yang G. Kim, Bo Yuan, Myung Lee, Kazuya Tsukamoto

3. Obstacle Detection Support System Using Monocular Camera
   Naoya Hayashida, Hiroyoshi Miwa

4. Performance Evaluation Experiments of Bitcoin SV Scaling Test Network
   Akihiro Fujihara, Takaaki Yanagihara

e-Business-S1: Business-IT Alignment

Session Chair: Olivia Fachrunnisa, UNISSULA, Indonesia

1. Blockchain Technology as Corporate Governance Innovation Model for SMEs
   Mutamimah, Suryani Alifah, Made Dwi Adnjani

2. Blockchain Model to Support Waqf Management
   Bedjo Santoso, Moch Zulfa

3. The Importance of Information Technology Adoption and Fintech to Improve SMEs Performance During the Covid-19 Pandemic
   Sri Anik, Bedjo Santoso, Sri Ayuni

4. Impact of Dynamic Capabilities and ICT Utilization on Performance of SMEs and Moderating Role of Agile Leadership: Evidence A Case Study for Indonesia
   Siti Aisiyah Suciningtias, Heri Sudarsono, Sri Anik, Sasti Anjana Widhyasti

Parallel Sessions

15:00-16:30 (Japan time zone: UTC+9)
08:00-09:30 (CEST Time Zone (Rome, Italy): UTC+2)
23:00-00:30 (Pacific Daylight Time (Victoria, CA): UTC-7 - 1 day)

INCoS-S4: Multimedia Application and Network Design

Session Chair: Shinji Sakamoto, Kanazawa Institute of Technology, Japan

1. Mesh Routers Placement by WMN-PSODGA Hybrid Intelligent System Considering Stadium Distribution and RDVM: A Comparison Study for Different Crossover Methods
   Admir Barolli, Kevin Bylykbashi, Ermioni Qafzezi, Shinji Sakamoto, Leonard Barolli, Makoto Takizawa

2. A Comparison Study of FC-RDVM and LDVM Router Placement Methods for WMNs by WMN-PSOHC Simulation System Considering Different Instances
   Shinji Sakamoto, Admir Barolli, Yi Liu, Elis Kulla, Leonard Barolli, Makoto Takizawa

3. Comparative Road State Decision Making Results by Various Environmental Sensors on Public Winter Road
   Yoshitaka Shibata, Akira Sakuraba

4. A Movement Adjustment Method for DQN-Based Autonomous Aerial Vehicle Mobility: Performance Evaluation of AAV Mobility Control Method in Corner Environment
   Nobuki Saito, Chihiro Yukawa, Kyohei Toyoshima, Tomoya Yasunaga, Yuki Nagai, Tetsuya Oda, Leonard Barolli

5. A Fuzzy-based System for Assessment of Fog Computing Resources in SDN-VANETs Considering Service Migration Speed as a New Parameter
   Ermioni Qafzezi, Kevin Bylykbashi, Admir Barolli, Makoto Ikeda, Keita Matsuo, Leonard Barolli

e-Business-S2: Profit Management and Corporate Governance

Session Chair: Luluk Muhimatul Ifada, UNISSULA, Indonesia

1. The Role of Corporate Governance in Preventing Financial Distress
   Luluk Muhimatul Ifada, Indra Yulianto

2. Profit Distribution and Islamic Value: A Conceptual Development of Al-Adl Profit Distribution Management
   Nunung Ghoniyah, Widiyanto bin Mislan Cokrohadisumarto

3. Conceptual Framework for Determining Sukuk Investment Intentions among Millennials
   Aftuqa Sholikatur Rohmania, Nunung Ghoniyah

4. The Role of Religious Values to Drive Value Co-creation in Religio-centric Market
   Ken Sudarti, Hendar Hendar, Moch Zulfa

5. Real Earnings Management in Family Firm
   Edy Suprianto

Parallel Sessions

17:00-18:30 (Japan time zone: UTC+9)
10:00-11:30 (CEST Time Zone (Rome, Italy): UTC+2)
01:00-02:30 (Pacific Daylight Time (Victoria, CA): UTC-7)

e-Business-S3: e-Business Management and Sustainability

Session Chair: Ardian Adhiatma, UNISSULA, Indonesia

1. Green Accounting Adoption Toward Sustainable Performance
   Maya Indriastuti, Anis Chariri, Fuad

2. Partnership Quality as a Strategy to Improve Partnership Performance: A Case Study of BPJS Healthcare in Indonesia
   Alifah Ratnawati, Sri Wahyuni Ratnasari

3. Implementation of CSR and Family Governance in Increasing Competitiveness through Agile Innovation in SMEs: A Conceptual Model
   Winarsih, Chrisna Suhendi, Kiryanto

4. Effect of Intellectual Capital on Firm Value Considering Dividend Policy as a Control Variable
   Ibnu Khajar, Ahmad Hijri Alfian

5. Ihsan Digipreunership Orientation: Religious Value for Managing E-Business
   Ayatullah Sadali, Olivia Fachrunnisa, Ardian Adhiatma

Friday, September 9, 2022

INCoS-2022 Organizing Committee Meeting and Discussion

Online Meeting Schedule for NBiS-2022 and INCoS-2022
September 7 - 9, 2022

1st Day: Wednesday, 7 September , 2022	Room #1 Meeting ID: 828 7669 8383		Room #2 Meeting ID: 897 1133 5544		Room #3 Meeting ID: 889 3426 1195		Room #4 Meeting ID: 868 3055 4641	
	Session title	Session Chair	Session title	Session Chair	Session title	Session Chair	Session title	Session Chair
Slot 1 13:00-14:30 (UTC+9) Japan Standard Time 06:00-07:30 (UTC+2) CEST Time Zone (Rome, Italy) 21:00-22:30 (UTC-7) - 1 day: Pacific Daylight Time (Victoria, CA)	NBiS-S1	Arjan Durresi, USA	INWC-S1	Makoto Ikeda, Japan			WIND-S1	Masato Tsuru, Japan
Slot 2 15:00-16:30 (UTC+9) Japan Standard Time 08:00-09:30 (UTC+2) CEST Time Zone (Rome, Italy) 23:00-00:30 (UTC-7) - 1 day: Pacific Daylight Time (Victoria, CA)	NBiS-S2	Naohiro Hayashibara, Japan	DEMoC-S1	Yusuke Gotoh, Japan	INCoS-S1	Juggapong Natwichai, Thailand	MIDAP-S1	Jana Nowaková, Czech Republic
Slot 3 17:00-18:30 (UTC+9) Japan Standard Time 10:00-11:30 (UTC+2) CEST Time Zone (Rome, Italy) 01:00-02:30 (UTC-7) Pacific Daylight Time (Victoria, CA)	NBiS-S3	Hsing-Chung Chen, Taiwan	ADPNA-S1	Tomoya Enokido, Japan	INCoS-S2	Pavel Krömer, Czech Republic	BDS-S1	Marcello Trovati, United Kingdom
Slot 4 19:00-20:00 (UTC+9) Japan Standard Time 12:00-13:00 (UTC+2) CEST Time Zone (Rome, Italy) 03:00-04:00 (UTC-7) Pacific Daylight Time (Victoria, CA)	**NBiS-2022 and INCoS-2022 Keynote #1: Prof. Masaki Aida** **Meeting ID: 828 7669 8383**							

2nd Day: Thursday, 8 September , 2022	Room #1 Meeting ID: 828 7669 8383		Room #2 Meeting ID: 897 1133 5544		Room #3 Meeting ID: 889 3426 1195		Room #4 Meeting ID: 868 3055 4641	
	Session title	Session Chair	Session title	Session Chair	Session title	Session Chair	Session title	Session Chair
Slot 1 11:00-12:00 (UTC+9) Japan Standard Time 04:00-05:00 (UTC+2) CEST Time Zone (Rome, Italy) 19:00-20:00 (UTC-7) - 1 day: Pacific Daylight Time (Victoria, CA)	**NBiS-2022 and INCoS-2022 Keynote #2: Prof. Carson K. Leung** **Meeting ID: 828 7669 8383**							
Slot 2 13:00-14:30 (UTC+9) Japan Standard Time 06:00-07:30 (UTC+2) CEST Time Zone (Rome, Italy) 21:00-22:30 (UTC-7) - 1 day: Pacific Daylight Time (Victoria, CA)	NBiS-S4	Issac Woungang, Canada	WSSM-S1	Jun Iio, Japan	INCoS-S3	Hiroshi Miwa, Japan	e-Business-S1	Olivia Fachrunnisa, Indonesia
Slot 3 15:00-16:30 (UTC+9) Japan Standard Time 08:00-09:30 (UTC+2) CEST Time Zone (Rome, Italy) 23:00-00:30 (UTC-7) - 1 day: Pacific Daylight Time (Victoria, CA)	NBiS-S5	Yoshitaka Shibata, Japan	WSSM-S2	Shusuke Okamoto, Japan	INCoS-S4	Shinji Sakamoto, Japan	e-Business-S2	Luluk Muhimatul Ifada, Indonesia
Slot 4 17:00-18:30 (UTC+9) Japan Standard Time 10:00-11:30 (UTC+2) CEST Time Zone (Rome, Italy) 01:00-02:30 (UTC-7) Pacific Daylight Time (Victoria, CA)			INVITE-S1	Tomoyuki Ishida, Japan			e-Business-S3	Ardian Adhiatma, Indonesia

3rd Day: Friday, 9 September, 2022	NBiS-2022 and INCoS-2022 Steering Committee Meeting and Discussion

Additional information

In the Slot Item the time shows the session time, while the UTC shows Coordinated Universal Time. We use UTC in order to show that all countries in this time zone have the same session time.