

PROGRAM GUIDE



NBIS-2024

The 27-th International Conference on
Network-Based Information Systems

and



*Intelligent Networking
and Collaborative Systems*

INCoS-2024

The 16-th International Conference on
Intelligent Networking and Collaborative Systems

Virtual Conference (Hybrid conferences)
September 19th - September 21st, 2024

Technically Co-sponsored by:



Soonchunhyang (SCH) University, South Korea



Fukuoka Institute of Technology, Japan

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Welcome Message from NBiS-2024 Organizing Committee

We would like to welcome you to the 27th International Conference on Network-Based Information Systems (NBiS-2024), which is held from September 19th to September 21st, 2024 at Soonchunhyang (SCH) University, Asan, South Korea.

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-2024, 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-2024 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-2024. We hope that you have an enjoyable and productive time during the conference.

INCoS-2024 Organizing Committee

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Makoto Takizawa, Hosei University, Japan

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Steering Committee

Leonard Barolli, Fukuoka Institute of Technology, Japan

Welcome Message from the INCoS-2024 Organizing Committee

Welcome to the 16th International Conference on Intelligent Networking and Collaborative Systems (INCoS-2024), which is held from September 19th to September 21st, 2024 at Soonchunhyang (SCH) University, Asan, South Korea.

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, and so on. 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 e-Learning 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 technologies based on IoT, Cloud, mobile and wireless infrastructures are 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.

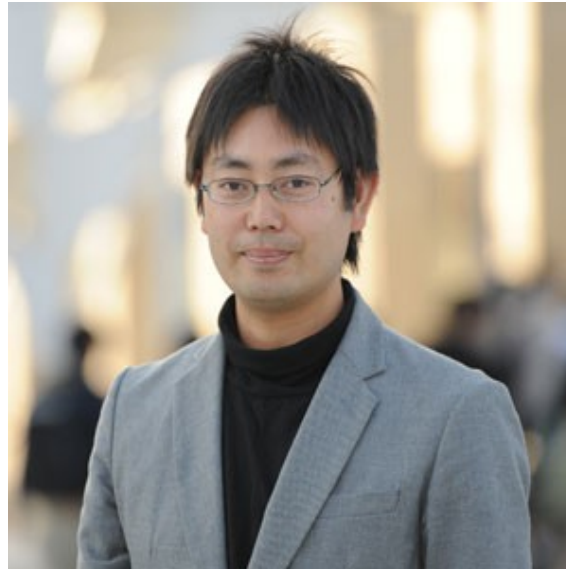
The successful organization of the conference is achieved thanks to the great collaboration and hard work of many people and conference supporters. First, we would like to thank all authors for their continued support to the conference by submitting their research work and for their presentations and 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-2024 & INCoS-2024 Keynote I



Prof. Kosuke Takano, Kanagawa Institute of Technology, Atsugi, Japan

A Vector Database Approach for Natural Environment Monitoring and Analysis

Abstract: By using spatiotemporal data obtained from various sensor devices can be analyzed the changes in the natural environment. However, to semantically and spatiotemporally analyze the massive amount of sensor data accumulated daily, it is important to realize observation data management by balancing resource size, computational cost, and semantic quality. In this keynote talk will be introduced a vector database approach that can be applied to data retrieval, analysis and prediction during the observation of global and local changing natural and ecological environments. Our approach can increase the reusability of massive observation data by compressing them to the feature vectors as embedding matrices using appropriate neural networks, achieving fast semantic retrieval and spatiotemporal analysis. We will present some research results to evaluate the proposed approach.

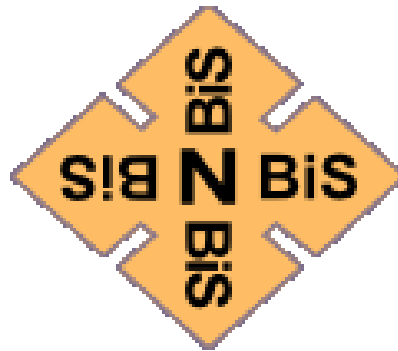
NBiS-2024 & INCoS-2024 Keynote II



Prof. Ki-Woong Park, Sejong University, Seoul, South Korea

Taxonomy Construction of Anti-Tampering Technology Schemes from System Programmer's View

Abstract: In this talk, we analyze the recent anti-tampering technologies from a system programmers perspective. We have constructed a taxonomy matrix for these technologies and introduce a specialized classification framework. Using this framework, we assign identification numbers to the detailed technologies and operating principles embedded in existing anti-tampering solutions based on the Sensing & Actions perspective and their Stackable Position. This approach enables creation of a roadmap for anti-tampering technologies and facilitates anti-tampering orchestration to build secure systems. Finally, we introduce Software-Defined Orchestration for Anti-Tampering, which allows selecting the most suitable anti-tampering technology for a given system.



NBiS-2024

Main Conference and Workshops Program

Thursday, 19 September, 2024

NBiS-2024 Organizing Committee Meeting and Discussion

Friday, 20 September, 2024

NBiS-2024 Keynote I

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

NBiS-2024 Keynote Talk I

Prof. Kosuke Takano: A Vector Database Approach for Natural Environment Monitoring and Analysis

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)

NBiS-S1: Mobile and Wireless Computing

Session Chair: Bhed B. Bista, Iwate Prefectural University, Japan

1. A Comparison Study by WMN-PSODGA System for LDIWM, RIWM, FC-RDVM Router Replacement Methods Considering a Small Scale WMN and Boulevard Distribution of Mesh Clients
Yusuke Irie, Paboth Kraikritayakul, Shinji Sakamoto, Makoto Ikeda, Keita Matsuo, Leonard Barolli
2. A Fuzzy-based System for Selection of Slice Service Type in 5G/6G Wireless Networks
Phudit Ampririt, Shunya Higashi, Ermioni Qafzezi, Makoto Ikeda, Keita Matsuo, Leonard Barolli
3. Enhanced 5G Radio Resource Allocation Mechanism Using Game Theory and Firefly Algorithm
He Yuhong, Bhed Bahadur Bista, Jiahong Wang, Eiichiro Kodama, Toyoo Takata
4. Investigation of Optimal Number and Positioning of MOAP Robots: A Case Study for Hakata Train Station
Keita Matsuo, Leonard Barolli
5. A XGBoost-based Movement Prediction System Using ADS-B Data
Koichi Kakimoto, Makoto Ikeda, Leonard Barolli

DEMoC-S1: Data Engineering and Mobile Computing

Chair: Yusuke Gotoh, Okayama University, Japan

1. Structuring Radiology Reports using Dictionary Matching: A Comparison with ChatGPT-3.5
Koji Sakai, Yu Ohara, Takeshi Takahashi, Kei Yamada
2. A Drawing Time Reduction Method considering Object Occlusions for Metaverse
Tomoki Yoshihisa, Hiroki Kitagawa, Hideyuki Shimonishi
3. Evaluation of Bandwidth-Aware Scheduling Method for Division-Based Broadcasting with Multiple Video Qualities
Yusuke Gotoh, Takuto Deguchi, Kiki Adhinugraha
4. A Method to Improve Crowdsourcing Outcome and to Reduce Calculation Costs Using Machine-Learning
Nana Ota, Yu Suzuki
5. Generative Action Procedure Manzai Scenario based on Maslow's Stages of Need Theory
Yosuke Tsuge, Amon Shimozaki, Akiyo Nadamoto

Lunch

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)

NBiS-S2: Web-based and e-Learning Systems**Session Chair: Masaru Kamada, Ibaraki University, Japan**

1. Human Picsurfing - A Learning Application of Random Surfer Model
Kazunari Ito
2. Implementation and Evaluation of a Cyber Operation of Cyber Learning and Training Environment for Beginners
Shimon Kato, Naoki Kodama, Takamichi Saito
3. An Evaluation of Implementation Options for Web-based Interactive Animations
Shusuke Okamoto, Masaki Kohana, Masaru Kamada
4. Click Event Distribution among Multiple Web Browsers
Masaki Kohana, Shusuke Okamoto

INWC-S1: Mobile Computing and Communication**Chair: Makoto Ikeda, Fukuoka Institute of Technology, Japan**

1. Wavelet Analysis for Tree Drawings in the Baum Test
Takaaki Goto, Akira Rinoshika, Tadaaki Kirishima, Kensei Tsuchida, Chieko Kato
 2. Adaptive Time-Division Duplexing Slot Allocation Method for Base Stations in Beyond-5G Networks
Musashi Hayashi, Yuzo Taenaka, Yi-Wei Ma, Kazuya Tsukamoto
 3. Approaching Movement-Aware Satellite Selection Method for Low-Earth-Orbit Satellite Networks
Keita Kashiwagi, Kazuya Tsukamoto
 4. Effect of Different Sizes of Parasitic Coil Placed on Table-type 13.56 MHz RFID Reader/Writer on Communication Performance
Atsuro Matsui, Kiyotaka Fujisaki
 5. Optimization of Configuration of Directional Coupler in Hexagonal Resonator in Photonic Crystal
Itsuki Ishibashi, Hiroshi Maeda
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Coffee Break**15:30-16:00(UTC+9) Korea Standard Time**

Parallel Sessions**16:00-17:30(UTC+9) Korea Standard Time**
9:00-10:30(UTC+2) CEST Time Zone (Rome, Italy)**NBiS-S3: Secure and Intelligent Systems****Session Chair: Nour El Madhoun, ISEP & Sorbonne Université, LIP6, France**

1. Challenges in Web Bot Detection and Detection Evasion Technologies
Kazuki Yasuhara, Naoki Kodama, Takamichi Saito
 2. Proposal of Adversarial Attack Traffic Detection Using Adversarial Attack Techniques for Network Intrusion Detection System
Taisei Watanabe, Eiichiro Kodama, Bhed B. Bista, Jiahong Wang, Toyoo Takata
 3. A Zero Trust Architecture for LTE-V2X based Autonomous Driving System
Da-wit Jeong, Sun-Young Lee
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4. Beyond the Code: Unraveling the Applicability of Graph Neural Networks in Smell Detection
Djamel Mesbah, Nour El Madhoun, Khaldoun Al Agha, Hani Chalouati
5. Deep Learning Techniques for Wildfire Investigation with Drones
Sathit Prasomphan, Khantharat Anekboon, Phurin

WSSM-S1: Multimedia and E-Learning Systems

Chair: Masaki Kohana, Chuo University, Japan

1. A Proposal of Application for Learning about Document Structuring and Styling through Pictogram Content Creation
Yamato Kishita, Mikihiro Ishii, Kazunari Ito
 2. Spider Board: Creative Input Device in Digital Game Based Language Learning to Improve Students' Learning Activity
Galang Prihadi Mahardhika, Masaru Kamada
 3. Proposal for Solving Smartphone Addiction using a Narrative-based Game
Masyu Iijima, Jun Iio
 4. Development of a Learning Output Sharing Platform for Output-Driven Learning in Children
Yoshihiro Kawano, Mikio Ito, Sho Yoshino, Yoshiha Goto
 5. Introducing AI Dialogue and Action into a TRPG
Kazuma Ito, Shusuke Okamoto
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Reception Party at (TBA)

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

Saturday, 21 September, 2024

NBiS-2024 Keynote II

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

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

NBiS-2024 Keynote Talk II

Prof. Ki-Woong Park: Taxonomy Construction of Anti-Tampering Technology Schemes from System Programmer's View

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)

NBiS-S4: Multimedia Systems and Applications**Session Chair: Jun Iio, Chuo University, Japan**

1. Improvement of Graphical User Interface of IslayTab
Yuta Niinami, Erjing Zhou, Michitoshi Niibori, Masaki Kohana, Shusuke Okamoto, Masaru Kamada
2. What Are Your Choices? Visualization of the Behavioral Log Analytics Using Interactive Nonlinear Stories
Jun Iio
3. Automatic Matching System for Disaster Victims and Volunteers
Yuta Seri, Tomoyuki Ishida
4. Proposal of a State Diagram-based Programming Paradigm for Embedded Devices
Erjing Zhou, Keigo Takayasu, Masaru Kamada, Shusuke Okamoto

WSSM-S2: Web-based Systems and Multimedia Applications**Chair: Shusuke Okamoto, Sekei University, Japan**

1. A Web-Based Math Graph Art Tool for Understanding Quadratic Functions
Hironao Iwase, Erjing Zhou, Michitoshi Niibori, Masaru Kamada
 2. A Web AR Application to Practice Drums
Asahi Onuki, Galang Prihadi Mahardhika, Michitoshi Niibori, Masaru Kamada
 3. Web Applications for Sharing Teacher PC Screen to Student PCs via WebRTC
Tatsuma Okuda, Michitoshi Niibori, Hiroshi Noguchi, Yasuhiro Ohtaki, Masaru Kamada
 4. A Preliminary Experiment for Obtaining 3D Coordinates from Dual Camera Images
Masahide Hayashi, Shusuke Okamoto
 5. A Panorama Photographing Device that Exploits the Wide-angle Lens of Action Cameras
Erjing Zhou, Michitoshi Niibori, Masaru Kamada
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Lunch**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)****NBiS-S5: Distributed Systems and Algorithms****Session Chair: Naohiro Hayashibara, Kyoto Sangyo University, Japan**

1. A Network-based Fog Computing (NBFC) Model of the IoT
Dilawaer Duolikun, Tomoya Enokido, Makoto Takizawa
 2. Performance Evaluation of Cuckoo Search for Facility Layout Problem
Keigo Akashi, Naohiro Hayashibara
 3. Development of New Off-path Caching Algorithm for Reducing Both of Network Traffic and Content Acquisition Time on NDN
Takeshi Hara, Tetsuya Shigeyasu
 4. Fog Node Selection Algorithm based on the Similarity of Component Degrees
Shigenari Nakamura, Tomoya Enokido, Makoto Takizawa
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INVITE-S1: VR Applications and 3D Modelling**Chair: Tomoyuki Ishida, Fukuoka Institute of Technology, Japan**

1. Japanese Kimono Obi Introduction System
Naho Kuriya, Tomoyuki Ishida
 2. 3D Modeling from Video Images using NeRF Technology and its Evaluation
Gao Zhi Yi, Hiroki Takahashi, Toru Kato, Meguru Yamashita, Akio Doi
 3. IoT Avatar: Turning Various Objects into Avatars
Yuki Kida, Toshihiko Chiba, Tsubasa Kinoshita, Aoi Mikami, Takahiro Yakoh, Tetsuro Ogi
 4. Comparison of Capacity to be Alone, Attachment Function and Flow in Student-athletes and General Students
Sakata Hiro, Yubune Eiichi
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Coffee Break**15:30-16:00(UTC+9) Korea Standard Time**

Parallel Sessions**16:00-17:30(UTC+9) Korea Standard Time**
9:00-10:30(UTC+2) CEST Time Zone (Rome, Italy)**ADPNA-S1: Data Engineering and Mobile Computing I****Chair: Tomoya Enokido, Rissho University, Japan**

1. Scratch and Defect Detection System for Painting Images: A Deep Learning Approach
Akio Doi, Ying Dai, Hiroki Takahashi, Toru Kato, Meguru Yamashita, Naoyuki Kon
2. Method for Transparent Transformation of Monolithic Programs into Microservices for Effective Use of Edge Resources
Yuto Motoyama, Yuzo Taenaka, Kazuya Tsukamoto
3. Improvement Methods for Work Motivation in Telework
Shigeaki Tanimoto, Saki Suzuki, Hiroki Koyama, Keita Nagai, Takashi Hatashima, Atsushi Kanai
4. The Prototype Implementation of Routing Method based on Deployed Order in Wireless Mesh Networks
Kazunori Ueda

INVITE-S2: Multimedia and Statistical Analysis**Chair: Hideo Miyachi, Tokyo City University, Japan**

1. Influence of Line Segments in the Ebbinghaus Illusion
Tadaaki Kirisima, Tadahiko Kimoto, Chieko Kato
 2. Study on the Visualization of Recycling Processes using Sankey Diagrams and Their Effects
Hideo Miyachi, Mami Kimura
 3. The Relationship Between Media Influence and Attitudes Toward LGBT People Among University Students in Japan
Zihan Zhang, Chieko Kato
 4. The Influence of Yoga Therapy on Optimism: Examining the Validity and Reliability of the LOT-R Scale
Kyoko Okita, Chieko Kato
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Banquet Party at (TBA)

19:00-21:00(UTC+9) Korea Standard Time



INCoS-2024

Main Conference and Workshops Program

Thursday, 19 September, 2024

INCoS-2024 Organizing Committee Meeting and Discussion

Friday, 20 September, 2024

INCoS-2024 Keynote I

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

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

INCoS-2024 Keynote Talk I

Prof. Kosuke Takano: A Vector Database Approach for Natural Environment Monitoring and Analysis

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)

INCoS-S1: Wireless Networking and Collaborative Systems

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

1. Optimized Scheduling Algorithm for On-Demand Transportation Services as Alternative to Personal Vehicles
Sato Kamimura, Hiroyoshi Miwa
2. A Mesh Router Placement Optimization System for Three-dimensional Environment
Kenya Okage, Kyohei Wakabayashi, Chihiro Yukawa, Tetsuya Oda, Leonard Barolli
3. CAN-Based Identification of Human and Autonomous Driving Modes in Level 3 Autonomous Vehicles
Keunyoung Yu, Donghyun Ryu, Minchan Jeong, Munkhdelgerkh Batzorig, Kangbin Yim
4. Performance Evaluation of WMN-CS Intelligent Simulation System Considering Normal, Stadium, Subway and Uniform Distributions of Mesh Clients
Shinji Sakamoto, Admir Barolli, Yi Liu, Shigenari Nakamura, Leonard Barolli, Makoto Takizawa

WIND-S1: Information Network Design and Network Applications

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

1. Self-expanding City-level Digital Twin using Blockchain and IPFS
Kenji Kanai, Aram Mine, Hidehiro Kanemitsu, Hidenori Nakazato
 2. Reward Distribution Using Coalitional Game Considering Overlapping of Point Cloud Data
Jin Watanabe, Sumiko Miyata, Kenji Kanai, Noriaki Kamiyama, Taku Yamazaki, Eiji Kamioka
 3. 60GHz MillimeterWave Communication Experiment for Unmanned Aerial Vehicles in Low Altitude Airspace
Taku Yamazaki, Tomoki Yamaguchi, Daisuke Sasaki, Junya Sato, Takumi Miyoshi, Sumiko Miyata, Hironobu Imamura
 4. Data Transfer Control Method of Indoor Spatio-Temporal Data Retention in F-CPS
Riku Nakamura, Daiki Nobayashi, Kazuya Tsukamoto, Takeshi Ikenaga, Myung Lee
 5. Method for Reliable Detection of Vehicles with Location Information Errors in Spatio-Temporal Data Retention System
Tatsuya Takabe, Hiroshi Yamamoto, Daiki Nobayashi, Takeshi Ikenaga, Kazuya Tsukamoto
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Lunch

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)

INCoS-S2: Network Security and Trust Computing**Session Chair: Kangbin Yim, SCH University, South Korea**

1. Security Elements and Threat Analysis of 5G Mobile Network based on 3GPP 5G NR Standard
Insu Oh, Yoseob Yoon, Mahdi Sahlabadi, Hongnyeon Kim, Kangbin Yim
2. A Fuzzy-based System for Evaluation of User Trust in Social Networks
Shunya Higashi, Phudit Ampririt, Ermioni Qafzezi, Makoto Ikeda, Keita Matsuo, Leonard Barolli
3. Secure Federated Matrix Factorization via Shuffling Encrypted Parameters between Devices
Taisho Sasada, Md Delwar Hossain, Yuzo Taenaka, Md. Mahbubur Rahman, Youki Kadobayashi
4. Enhancing CAN Security: A Fourier Transform Approach to Reverse Engineering
Chatchawan Tangcharoen, Munkhdelgerekh Batzorig, Mahdi Sahlabadi, Sathit Prasomphan, Kangbin Yim
5. A Cross Network Identity Authentication Scheme for UAVs Based on Layered Blockchain Technology
Lili Zhang

WIND-S2: Mobile and Wireless Networks**Session Chair: Hiroyoshi Miwa, Kwansei Gakuin University, Japan**

1. Network Routing Control Algorithm Combining Waiting and Rerouting of Packets in Challenged Communication Environment
Kyohei Higashiyama, Hiroyoshi Miwa
 2. Implementation of Smart Contract-based Audit System of Vehicles with Data Misdelivery
Hikaru Tomita, Hiroshi Yamamoto, Daiki Nobayashi, Takeshi Ikenaga, Kazuya Tsukamoto
 3. Performance Evaluation of Traffic Steering Methods for QoS Improvement in case of Network Failures in Beyond 5G Networks
Koki Kawaguchi, Daiki Nobayashi, Kazuya Tsukamoto, Takeshi Ikenaga
 4. Performance Evaluation of In-Metal-Pipe Wireless Communication for Network Expansion with IEEE 802.11 Wireless LAN
Yuki Endo, Daiki Nobayashi, Takeshi Ikenaga
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Coffee Break**15:30-16:00(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)**INCoS-S3: Intelligent Computing and Machine Learning****Session Chair: Francesco Orciuoli, University of Salerno, Italy**

1. Depression Tendency Estimation Method Using AI Chatbot
Riko Indo, Fujino Tochishita, Hiroyoshi Miwa, Daichi Nomiya, Soichiro Kude
 2. A Comprehensive Computational Framework for Detecting and Analyzing Human Stress in Workplace through Rough Set Theory and ICF
Emanuele Damiano, Angelo Gaeta, Francesco Orciuoli
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3. A Fuzzy-based System for Node Selection and Routing in Vehicular Opportunistic Networks
Ermioni Qafzezi, Kevin Bylykbashi, Shunya Higashi, Phudit Ampririt, Keita Matsuo, Leonard Barolli
4. LEARNNT: A Neural Machine Translation Framework for Accurate Binary Lifting to High-Level Representation
Duulga Baasantogtokh, Yoseob Yoon, Munkhdelgerekh Batzorig, Mahdi Sahlabadi, Kangbin Yim

BDS-S1: Algorithms and Applications for Data Science**Session Chair: Marcello Trovati, Edge Hill University, United Kingdom**

1. The Relationship Between Amae and a Sense of Basic Trust - Using Questionnaire Methods and Statistical Methods
Yuma Kagawa, Chieko Kato, Keiko Kioka
 2. Exploring the Impact of IoT and Weather Data Utilization on Agricultural Productivity in Nepal
Eiji Aoki, Hiroshi Nozaki, Raunak Baskota
 3. Examining the Effects of Job Demands and Control on Stress using Multiple Regression Analysis
Nanami Kurai, Chieko Kato, Yoshiomi Otsuka
 4. Initial Investigation of the Sentiment Analysis Similarities and Consistencies in English and Chinese
Vladimir Nikonov, Marcello Trovati
 5. Exploring Yoga's Effects for Student-Athletes and Non-Athletes: A Text Mining-Based Differential Study
Satoko Murakami, Chieko Kato
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Reception Party at (TBA)18:00-20:00(UTC+9) Korea Standard Time

Saturday, 21 September, 2024**INCoS-2024 Keynote II**

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

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

INCoS-2024 Keynote Talk II**Prof. Ki-Woong Park:** Taxonomy Construction of Anti-Tampering Technology Schemes from System Programmer's View

Coffee Break11:00-11:30 (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)

INCoS-S4: Network Design and Analysis

Session Chair: Hiroyoshi Miwa, Kwansei Gakuin University, Japan

1. Analysis of 3D Network Structure of Capillaries in Liver
Soichiro Araki, Hiroyoshi Miwa, Hiroto Shoji
2. Robust Deepfake Detection and Resilient Adversarial Image Reconstruction with Reduced Features Set
Muhammad Irfan, Myung Lee, Daiki Nobayashi
3. Investigating WSD-Based Metrics for Brain Network Analysis
Mikihiro Yasuda, Yusuke Sakumoto
4. Routing and Scheduling Algorithm in Combined Ride-Share and Delivery Service
Koki Adachi, Hiroyoshi Miwa

FINCoS-S1: Frontiers on Collaborative Systems and Networking

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

1. Research on Narcissism and Mental Health on SNS Examination by Covariance Structure Analysis
Yu Horiike, Chieko Kato, Yoshitomi Otsuka
 2. Differences in Psychological Impact of Slander on Social Media according to Coping Type
Sota Kirai, Chieko Kato, Yoshitomi Otsuka
 3. Collaborative Prediction Scheme for Privacy-Preserving Data Based on Vertical Federated Learning
Li Ping Shi, Yan Qiu Yang, Chi Yan, Jian Wei Duan
 4. Blockchain Technology in Healthcare: A Review of Integrated Medical Service Applications and Security Considerations
Chin-Ling Chen, Hsing-Chung Chen, Yong-Yuan Deng, Der-Chen Huang, Ling-Chun Liu
 5. Stackelberg Game Based Local Device Participation Incentive Method for Federated Learning
Nan Zhao, Lang Wan, Lihui Bai, Xu An Wang, Jinlian Chen, Juan Wang
 6. Research on Optimization of Adaptive Data Dimensionality Reduction Algorithm for Internet of Things
Zhu Qingchao, Zhou Yalan, Huang Hongmei, Shi Ting, Song Xiaou, Yang Yunfei
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Lunch

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)

INCoS-S5: Distributed and Multimedia Computing**Session Chair: Mauro Migliardi, University of Padova, Italy**

1. Role and Purpose-Based Concurrency Control with Reducing Electric Energy Consumption
Tomoya Enokido, Dilawaer Duolikun, Makoto Takizawa
2. Automatic Generation of Three-dimensional Model with Reduced Data Size based on Point Cloud Measurement
Takahiro Mizuchi, Hiroyoshi Miwa
3. The Problem of Payments in E-Health and E-Prescriptions Systems
Gnana Prakash Goli, Mauro Migliardi
4. Approximation Method by Block of 3D Model for Data Reduction
Yuya Aono, Hiroyoshi Miwa
5. Music Scoring Based on Piano Performance Videos and Sound Sources
Saho Ikeda, Misato Shiba, Hiroyoshi Miwa

e-Business-S1: e-Business and Corporate Governance**Session Chair: Olivia Fachrunnisa, UNISSULA, Indonesia**

1. Career Efficacy and Digital Health Competencies for Future Career Readiness of Professional Health Worker: A Conceptual Model
Cici Dea Permata Exsti, Muhammad Hilmi Labibunnajah, Olivia Fachrunnisa
2. Conflict Management in Public Health Service Organization: Perspective of Intrinsic Values in Role Theory
Sukanto, Ardian Adhiatma, Widiyanto
3. Digital Competency Based on Digital Literacy: Strategies for Career Success for Health Professionals
Muhammad Hilmi Labibunnajah, Cici Dea Permata Exsti, Olivia Fachrunnisa
4. Strengthening Persuasive Messages in YouTube Ads: Voiceover, Instructive Sentences and Brand Placement
Dian Marhaeni Kurdaningsih, Mahendra Wijaya, Andre N. Rahmanto, Drajat Kartono
5. Empowering Professional Health Through Organizational Resources: The Critical Role of Digital Leadership Skill
Irfan An Naufal, Olivia Fachrunnisa

Banquet Party at (TBA)

19:00-21:00(UTC+9) Korea Standard Time

Hybrid Meeting Schedule for NBiS-2024 and INCoS-2024, 19 September to 21 September, 2024

1st day:								
Thursday, 19 September, 2024								
Room #1		Room #2		Room #3		Room #4		
Session title	Session Chair	Session title	Session Chair	Session title	Session Chair	Session title	Session Chair	
NBiS-2024 and INCoS-2024 Steering Committee Meeting and Discussion								
2nd day:								
Friday, 20 September, 2024								
Room #1 Meeting ID:		Room #2 Meeting ID:		Room #3 Meeting ID:		Room #4 Meeting ID:		
Session title	Session Chair	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)								
NBiS-2024 and INCoS-2024 Keynote #1: Prof. Kosuke Takano								
Meeting ID:								
Coffee Break								
11:00-11:30 (UTC+9) Korea Standard Time								
Slot 2								
11:30-13:00(UTC+9) Korea Standard Time 04:30-06:00(UTC+2) CEST Time Zone (Rome, Italy)								
NBiS-S1	Bhed B. Bista, Japan	DEMoC-S1	Yusuke Gotoh, Japan	INCoS-S1	Shinji Sakamoto, Japan	WIND-S1	Masato Tsuru, Japan	
Lunch								
13:00-14:00(UTC+9) Korea Standard Time								
Slot 3								
14:00-15:30(UTC+9) Korea Standard Time 07:00-08:30(UTC+2) CEST Time Zone (Rome, Italy)								
NBiS-S2	Masaru Kamada, Japan	INWC-S1	Makoto Ikeda, Japan	INCoS-S2	Kangbin Yim, Korea	WIND-S2	Hiro Yoshi Miwa, Japan	
Coffee Break								
15:30-16:00(UTC+9) Korea Standard Time								
Slot 4								
16:00-17:30(UTC+9) Korea Standard Time 9:00-10:30(UTC+2) CEST Time Zone (Rome, Italy)								
NBiS-S3	Nour El Madhoun, France	WSSM-S1	Masaki Kohana, Japan	INCoS-S3	Francesco Orciuoli, Italy	BDS-S1	Marcello Trovati, United Kingdom	
Reception Party at (TBA)								
18:00-20:00(UTC+9) Korea Standard Time								
3rd day:								
Saturday, 21 September, 2024								
Room #1 Meeting ID:		Room #2 Meeting ID:		Room #3 Meeting ID:		Room #4 Meeting ID:		
Session title	Session Chair	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)								
NBiS-2024 and INCoS-2024 Keynote #2: Prof. Ki-Woong Park								
Meeting ID:								
Coffee Break								
11:00-11:30 (UTC+9) Korea Standard Time								
Slot 2								
11:30-13:00(UTC+9) Korea Standard Time 04:30-06:00(UTC+2) CEST Time Zone (Rome, Italy)								
NBiS-S4	Jun Iio, Japan	WSSM-S2	Shusuke Okamoto, Japan	INCoS-S4	Hiro Yoshi Miwa, Japan	FINCoS-S1	Hsing-Chung Chen, Taiwan	
Lunch								
13:00-14:00(UTC+9) Korea Standard Time								
Slot 3								
14:00-15:30(UTC+9) Korea Standard Time 07:00-08:30(UTC+2) CEST Time Zone (Rome, Italy)								
NBiS-S5	Naohiro Hayashibara, Japan	INVITE-S1	Tomoyuki Ishida, Japan	INCoS-S5	Mauro Migliardi, Italy	e-Business-S1	Olivia Fachrunnisa, Indonesia	
Coffee Break								
15:30-16:00(UTC+9) Korea Standard Time								
Slot 4								
16:00-17:30(UTC+9) Korea Standard Time 9:00-10:30(UTC+2) CEST Time Zone (Rome, Italy)								
ADPNA-S1	Tomoya Enokido, Japan	INVITE-S2	Hideo Miyachi, Japan					
Banquet Party at (TBA)								
19:00-21:00(UTC+9) Korea Standard Time								