Program

9th IEEE/ACIS International Conference on Big Data, Cloud Computing, and Data Science (BCD 2024-Summer)

Kitakyushu International Conference Center
Kitakyushu, Japan
July 16-18, 2024

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Program at a Glance

Tuesday, July 16, 2024

Time (UTC+9)	Activity	Location
12:00 PM – 5:00 PM	Registration	Room 21
1:00 PM – 1:40 PM	Opening Ceremony	International Conference Room
1:40 PM – 2:00 PM	Break	Foyer
2:00 PM – 3:00 PM	Regular Session 1	Room 33
3:00 PM – 3:20 PM	Coffee Break	Foyer
3:20 PM – 4:40 PM	Regular Session 2	Room 33
4:40 PM – 4:50 PM	Break	Foyer
4:50 PM – 5:50 PM	Regular Session 3	Room 33
6:00 PM – 7:30 PM	Welcome Reception	Sea lounge

Wednesday, July 17, 2024

Time (UTC+9)	Activity	Location
9:30 AM – 5:00 PM	Registration	Room 21
9:30 AM - 10:30 PM	Keynote 1	Room 33
10:30 AM - 10:50 AM	Coffee Break	Foyer
10:50 AM - 12:10 PM	Special Session	Room 33
12:10 PM - 1:30 PM	Lunch on your own	Foyer
1:30 PM - 3:10 PM	Regular Session 4	Room 33
3:10 PM – 3:30 PM	Coffee Break	Foyer
3:30 PM - 5:10 PM	Regular Session 5	Room 33
6:00 PM – 8:00 PM	Award Presentation Dinner Banquet	Art Hotel Kokura

Thursday, July 18, 2024

Time (UTC+9)	Activity	Location
9:30 AM – 12:00 PM	Registration	Room 21
9:30 AM – 10:40 AM	Regular Session 6	Room 33
10:40 AM – 10:50 AM	Coffee Break	Foyer
10:50 AM – 12:30 PM	Regular Session 7	Room 33
12:30 PM – 12:35 PM	Closing (next host presentation)	Room 33

Towards an Era of Hyperdemocracy

Tokuro Matsuo, Ph.D.
Professor
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Abstract

Nowadays, a lot of types of communication system to make consensus among people are provided. We can utilize these kinds of systems, such as social network system, e-mail, and instant messenger system, to make a decision and determination through online discussion. In the next decade, we can forecast a lot of types of consensus formation systems are provided and we may find new communication systems integrating between cyber and physical environment. In this talk, I introduce our conducted experiments using cyber-physical discussion environment in the panel discussion session in the conference. In the session, facilitator asks question to panelists about issues on the discussion and attendees can also do as well by their voice. Each attendee also can post and declare his/her opinions and suggestions through the online discussion system during the session. One or two facilitators facilitate the discussion in the online system as well as real discussion. We found out a lot of interesting results of attendees survey taken in before/after the experiments. I also introduce the environment to provide useful information for attendees by the digital signage system in the conference venue. This digital signage system is connected to the attendees location capture system and conference registration system. These integrations between cyber and physical environments and data enable to make better consensus formation between all sorts of people.

Bio

Dr. Tokuro Matsuo is currently Full Professor at Advanced Institute of Industrial Technology (AIIT) in Tokyo Public University Corporation from 2012. Also, he is currently Director of Research Center for Artificial Intelligence and Service Science at AIIT; Executive Director of International Institute of Applied Informatics (IIAI); Executive Director of International Accreditation Association for Higher Education; Guest Professor at Bina Nusantara University, Indonesia; Japan MICE Ambassador; and Kumamoto City MICE Ambassador. He was Associate Professor at Yamagata University, Japan (2006-2012); Adjunct Professor at Asian University, Taiwan (2019-2021); Invited Professor at City University of Macau, Macau (2018-2020); Visiting Professor at University of Nevada, Las Vegas, USA (2016-2017); Vice-President, International Association for Computer and Information Science, USA (2015-2017); Vice-President, Software Engineering Research Foundation, USA (2013-2018); Visiting Researcher at University of California at Irvine, USA (2010-2011); Research Fellow at Shanghai University, China (2010-2013); and Project Professor of Green Computing Research Center at Nagoya Institute of Technology, Japan (2011-2014); Guest Professor at Nagoya Institute of Technology, Japan (2021-2023); and Research Fellow of SEITI in Central Michigan University, USA (2010-2018). He received his Ph.D. in computer science from Nagoya Institute of Technology in 2006. His current research interests include agent-based electronic commerce, qualitative reasoning and simulation, material informatics, IT and business management, and IoT. Also, he is a professional event planner and event producer. He delivered 200 keynotes and invited talk at international conferences, symposia, and seminars. He also received over 10 awards on research and over 30 research grants from government, research foundations, and company. He has ever presented over 110 papers in journals and over 200 papers in international conference and including top/high-ranked international journals and conferences, such as, SN Applied Sciences, Data in Brief, Marine Systems & Ocean Technology, International Journal of Neural Systems, International Journal of Business Information Systems, Logic Journal of IGPL, IEEE Access, Heliyon, Applied Artificial Intelligence, Emerging Science Journal, AAAI, IEEE CEC, AAMAS, IEEE WCCI, and WWW. Also, he has published 14 edited books from Springer, IGI-Global, and WIT Press. He has been over 90 international conference organizing chairs (conference chair/ program chair / finance chair / publication chair) of IEEE PRIWEC(2006), IEEE/ACIS SNPD (2009 2012, 2013, 2014, 2015, 2017, 2018, 2019), PRIMA (2009, 2020, 2024), PRICAI (2024), IEEE/ACIS ICIS (2010, 2013, 2015, 2016), IIAI AAI (2012-2024), AAMAS (2013), IEEE/ACIS SERA (2014, 2015), IEEE SOCA (2014, 2017), IEEE TENSYMP (2016), IEEE ICA (2016, 2017, 2023), IEEE SC2 (2017), ASEAN-AI (2018), and other 40 international conferences and workshops..

Tuesday, July 16, 2024

12:30 PM - 5:00 PM – Registration   **Room 21**

1:00 PM - 1:40 PM – Opening Ceremony   **International Conference Room**

1:40 PM - 1:50 PM – Break   **Foyer**

2:00 PM - 3:00 PM – Regular Session 1   **Room 33**
Chair:TBA

Mitigating Prisoner's Dilemma by Moral-based Decision Making among Agents,
Takayuki Ito

Distributed Processing of Budget-based Neighboring Object Group Queries,
Yuan-Ko Huang and Lien-Fa Lin

Why are not all Combinations Calculated in Consensus Building in Automated Negotiation?,
Shun Okuhara and Takayuki Ito

3:00 PM - 3:20 PM – Coffee Break   **Foyer**

3:20 PM - 4:40 PM – Regular Session 2   **Room 33**
Chair: Haruka Murai, Nihon Pharmaceutical University

BERT-based RNN for Effective Detection of Depression with Severity Levels from Text Data,
Pavi Saraswat and Rohit Beniwal

Enhancing and Validating Simulator Data Generation Integrity through Frequency-Based Analysis,
Iman Sharifirad, Jalil Boudjadar and Pter Gorm Larsen

Classification of Aflatoxin B1 Contamination Level Using Hyperspectral Images with Random Forest and QDA,
Md Ahasan Kabir, Gayatri Mishra, Brajesh Kumar Panda, Chandra B Singh, Ivan Lee and Sang-Heon Lee

Comparison Of Machine Learning Models for Prediction of In-hospital Adverse Outcomes After Percutaneous Coronary Intervention,
I-Ruk Chanmanacharoen, Sira Jampa-Ngern and Wongwit Senavongse

4:40 PM - 4:50 PM –Break   **Foyer**

4:50 PM - 5:50 PM – Regular Session 3   **Room 33**
Chair:TBA

Utilizing Machine Learning Predictive Analytics to Enhance Early Sepsis Diagnosis In Critical Care Setting,
Paron Daothong, Sira Jampa-Ngern and Wongwit Senavongse

Empowering Demand-driven Industrial Procurements: Leveraging Decision-based Learning Algorithms For Crops Product Forcasting,
Geethapriya R

Development of Bike Self-damping Adjustment System Using Proportional Accumulation Control Algorithm,
Hsiung-Cheng Lin, Jun-Wei Chen, Ming-Dian Wang

6:00 PM - 8:00 PM – Welcome Reception   **Sea lounge**

Tuesday, July 17, 2024

9:30 AM - 10:30 PM – Keynote Speech 1   **Room 33**
Chair: TBA

Towards an Era of Hyperdemocracy
Tokuro Matsuo, Ph.D.

10:30 AM - 10:50 PM – Coffee Break   **Foyer**

10:50 AM - 12:10 PM – Special Session   **Room 33**
Chair: Makoto Watanabe, Hokkaido Bunkyo University

AI-based Dialogue and Facial Expression Analysis System: System Development and its Challenges,
Haruka Murai, Yasuyuki Furusawa and Shun Okuhara

12:10 PM - 13:10 PM – Lunch on your own

12:50 PM - 3:10 PM – Regular Session 4   **Room 33**
Chair:TBA

Optimal Placement of Tie-Switches Among Networked Microgrids Considering Annual Load Demand and Distributed Energy Resource Power Supply and Absorption,
Wei-Tzer Huang, Wei-Chen Lin, Chai-Hsien Hsiao, Kai-Chao Yao, Zong-Tai Li and Pei-Hsun Tsai

Plant Guard: Ai-enhanced Plant Diseases Detection for Sustainable Agriculture

Gokulachandru S, Bharathkumar V, Mohamad Yusuf M and Arulmurugan S

Utilizing Machine Learning Methods for Predicting Stock Market Movement: A Case Study with the S&p 500 Index
Yong-Shiuan Lee, Tsung-Jui Chiang-Lin and Yung-Hung Wang

Optimizing Deep Learning Accuracy: Visibility Filtering Approach for Early Wildfire Detection in Forest Sensor Images,
Nafeeul Walee, Atef Shalan, Christopher Kadlec and Munshi Rahman

Predicting Power Plant Start-Up Time: Leveraging Random Forest Algorithm and Univariate Selection for Enhanced Generator Performance,
Mogana Vadhna Suntrakumar, Sharifah Sakinah Syed Ahmad, Mohd Lutfi Samsudin, Halizah Basiron and Noor Fazilla Abd Yusof

Area and Power Efficient Approximate Radix-4 Adders for Image Application,
Nakul Gowda, Nikita Islurkar, Kandan K, Mudium Unnathi, Deeksha Sudarshan and Rashmi Seethur

Efficient Co-location Pattern Discovery Based on Density-wise Clustering and MC-Hash Structure,
Vanlun Nguyen, Xuanquan Vuong, Hoanganh Phan and Vanha Tran

3:10 PM - 3:30 PM – Coffee Break   **Foyer**

3:30 PM - 5:10 PM – Regular Session 5   **Room 33**
Chair:TBA

Examining Platform Strategy for Influencer Marketing Using Text Mining,
Jin-A Choi and Cyril Ku

Multi-Label Text Classification with Transfer Learning,
Ching-Seh Wu, Likhitha Yelamanchili, Chris Pollett and Robert Chun

Machine Learning Model to Enhance the Quality of Software Development Risk Management,
Mohamed Hamada

Sensitive Content Detection in Social Networks using Deep Learning Models and Explainability Techniques,
Isidoros Perikos

Explainable Sentiment Analysis Utilizing Deep Learning Methods and LIME,
Isidoros Perikos, Konstantinos Kyritsis, Nikolaos Spatiotis, Charalampos M. Liapis and Michael Paraskevas

Tuesday, July 18, 2024

9:30 AM - 10:30 PM – Regular Session 6   **Room 33**
Chair:TBA

Career Awareness Of Foreigners Working In Hokkaido As A Result Of Studying Abroad,
Ryo Sugawara, Makoto Watanabe and Shun Okuhara

Comparison of Best Paper Award Selection between program committee members and
attendees: Case of an International Conference,
Jawad Haqbeen, Sofia Sahab and Takayuki Ito

Understanding Co-Working Space Users: Aspect-Based Sentiment Analysis,
Maren Schnieder and Ahmad Beltagui

10:30 AM - 10:50 PM – Coffee Break   **Foyer**

10:50 AM - 12:10 PM – Regular Session 7   **Room 33**
Chair:TBA

Enhancing Load Forecasting by Clustering in Distributed Microgrids Based Energy Internet
Framework,
Anjana Vijayan and Jung-Min Yang

Comprehensive Analysis of IoT based Smart Street Light Systems and exploring augmentations
using Machine Learning,
Sanjay Patidar, Daksh Sansanwal and Deepak Mittal

Spatiotemporal Water Quality Prediction using Graph Neural Networks based on Diffusion
Decay Partial Differential Equations,
Lei Jia, Neil Yen and Yan Pei

A Critical Analysis of Dynamic Resource Allocation and Load Balancing in Multi-Cloud
Environment,
Rehan Perera

12:10 PM - 12:20 PM – Closing Remark (Program Chair)   **Room 33**