

Program

The 26th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2024-Summer III)



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

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Program at a Glance

Tuesday, July 16, 2024

Time	Activity	Location
11:00 – 18:00	Registration	Room 21 (C~D)
13:00 – 13:40	Opening Ceremony	International conference hall
13:40 – 14:00	Coffee Break	Room 21 (C~D)
14:00 – 15:00	Keynote	International conference hall
15:00 – 15:20	Coffee Break	Room 21 (C~D)
15:20 – 17:30 15:20 – 17:30	Special Session 3A Regular Session 1	Room 21 (A~B) Room 22
17:30 – 18:00	Coffee Break	Room 21 (C~D)
18:00 – 19:30	Welcome Reception	Sea lounge

Wednesday, July 17, 2024

Time	Activity	Location
9:00 – 17:10	Registration	Room 21 (C~D)
9:30 -10:30 9:30 -10:30	Special Session 1A Regular Session 2	Room 21 (A~B) Room 22
10:30 – 10:50	Coffee Break	Room 21 (C~D)
10:50 -12:10 10:50 -12:10	Special Session 1B Special Session 3B	Room 21 (A~B) Room 22
12:10 – 13:30	Lunch on your own	
13:30 – 15:10 13:30 – 15:10	Special Session 1C Special Session 2	Room 21 (A~B) Room 22
15:10 – 15:30	Coffee Break	Room 21 (C~D)
15:30 – 17:10 15:30 – 17:10	Special Session 1D Special Session 3C	Room 21 (A~B) Room 22
18:00 – 20:00	Dinner Banquet	Art Hotel Kokura

Thursday, July 18, 2024

Time	Activity	Location
9:00 – 10:35	Registration	Room 21 (C~D)
9:30 -10:30	Special Session 3D	Room 21 (A~B)
10:30 – 10:35	Closing Remark (Program Chair)	Room 21 (A~B)

Keynote 1

Difference in Software Development: Novice and Expert

Simon Xu, Ph.D.

Professor and Director, School of Computer Science and Technology

Algoma University, Canada

simon.xu@algonau.ca

Abstract

In this talk, we explore the profound distinctions in the cognitive processes and methodologies between experienced and beginner software developers. This presentation will delve into current research findings, highlighting how experts' approaches to problem-solving, design, code comprehension, and implementation contrast with those of novices. We will discuss empirical methods and cognitive models that have been instrumental in uncovering these differences. Additionally, the speech will consider the implications of these insights for educational practices and tool development, offering a vision for future research directions that could further bridge the gap between novice and expert programmers.

Biography

Dr. Simon Xu is a Full Professor and Director in the School of Computer Science and Technology at Algoma University where he has been a faculty member since 2002. Prior to his tenure at Algoma University, he was working in the School of Computer Science of [University of Windsor](#), Canada. Additionally, he serves as a guest professor at Wuhan University and the adjunct professor at China University of Mining and Technology, China. Dr. Xu earned his Ph.D. degrees from Wayne State University, in the United States, and the University of Liege in Belgium. His research focuses on software evolution, program comprehension, big data, and cognitive process during software development. Dr. Xu has published more than 90 articles in referred journals and conference proceedings and a few authored/co-authored books. He has chaired seven IEEE international conferences and has been invited to deliver keynotes at various IEEE conferences. He is a senior member of IEEE and a member of ACM.

Program in Detail

Tuesday, July 16, 2024

11:00am-6:00pm – Registration **Room 21 (C~D)**

1:00pm-1:40pm – Opening Ceremony **International
conference hall**

1:40pm-2:00pm – Coffee Break **Room 21 (C~D)**

2:00pm-3:00pm – Keynote **International
conference hall**

3:00pm-3:20pm – Coffee Break **Room 21 (C~D)**

3:20pm-5:30pm – Special Session 3A **Room 21 (A~B)**

Session Title: Practical Application of Data Science and IT Systems in Society

Chair: *Akira Yamazaki, Chiba Institute of Technology*

An Empirical Study of Online Tools Use in Online International Student Design Workshop
Akiyoshi INASAKA

Panel Data Analysis of Individual Achievement Test Data and Policy Recommendations for the Realization of EBPM
Masayori ARAKAWA, Masato HISATAKE, Yoshinori NISHIMURA, and Akira YAMAZAKI

Analysis of Quality Improving of Source Code Generation by LLM along with More Detailing of Development Documents
Reon NOMOTO and Hironori TAKUMA

An Empirical Study of Six Facilitating Factors for Motivation Based on Self-Determination Theory
Motoharu SATO and Hironori TAKUMA

Investigation of the Relationship between the “Project Management Principles” and “Fundamental Skills for Business”
Naofumi OTSUKA and Hironori TAKUMA

3:20pm-5:30pm – Regular Session 1 **Room 22**

Chair: *Motoi Iwashita, Chiba Institute of Technology*

OSS Fault Removal System Based on Deep Learning Inspired by Immune System
Yoshinobu Tamura, Haruki Takeda, Souta Heima, Shoichiro Miyamoto, Lei Zhou, Adarsh Anand, Pramod Kumar Kapur and Shigeru Yamada

Efficient Index Structures for Query Solutions on RDF Graphs
Koji Fujiwara and Ken Kaneiwa

Regression Analysis of Ghosting Artifacts in Temporal Fusion Videos Using AutoML
Hyungsub Kim, Muneeb A. Khan and Heemin Park

5:30pm-6:00pm – Coffee Break **Room 21 (C~D)**

6:00pm-7:30pm – Welcome Reception **Sea lounge**

Wednesday, July 17, 2024

9:00am-5:10pm – Registration

Room 21 (C~D)

9:30am-10:30am – Special Session 1A

Room 21 (A~B)

Session Title: Analysis, Evaluation, and Usage of Web Information, System Behaviors, and Human Action

Chair: *Hiroki Nomiya, Kyoto Institute of Technology*

Regarding the Semantics Combined with N-gram between Question and Answer Statements to Obtain Factor Score
Yuya Yokoyama

Motion Analysis of the Japanese Tea Ceremony
Yuto Sei and Hiroki Nomiya

Analysis of Subjective Ratings of Expression Intensity for 3D Face Models Reconstructed from Monocular Images
Rito Yasuoka, Hiroki Nomiya, Shushi Namba, Koh Shimokawa, and Masaki Osumi

9:30am-10:30am – Regular Session 2

Room 22

Chair: *Satoshi Nakano, Meiji Gakuin University*

Strategic Implementation of Knowledge Management Systems in Moroccan Public Administration: Guidelines and Key Success Factors

Mohamed Amine Zegmout, Asmae El Kassiri, Asmaâ Retbi and Samir Bennani

VMD-based short-term date PV generation forecasts
Zhiqiang Ma, Hongyang Cai and Jianpeng Da

Using Modified SA With Adaptive Clustering for Solving The Electric Vehicle Routing Problem
Ajchara Phu-Ang

10:30am-10:50am – Coffee Break

Room 21 (C~D)

10:50am-12:10pm – Special Session 1B

Room 21 (A~B)

Chair: *Yuya Yokoyama, Advanced Institute of Industrial Technology*

Automatic evaluation of video contents using eye gaze and facial expression
Ryuzo Ishikawa and Hiroki Nomiya

Positive Computing through Images and Scents
Shunya Nakamura and Teruhisa Hochin

Edge-Enhanced ConvNeXt-Unet for Foveal Avascular Zone Segmentation from Optical Coherence Tomography Angiography
Xiaozhong Xue, Weiwei Du, Masahiro Miyake, and Keina Sado

Light Source Position Estimation with Non-Photorealistic Rendering
Yusuke Nakamura and Hiroki Nomiya

10:50am-12:10pm – Special Session 3B**Room 22**Chair: *Hironori Takuma, Chiba Institute of Technology*Complementary Method for NER by Extracting Proper Nouns from Images when Utilizing LLM
*Yutaka IWAKAMI, Hironori TAKUMA and Motoi IWASHITA*Introduction of Information Security Fatigue Scale for Teleworking and its Effectiveness
*Hiroki KOYAMA, Shigeaki TANIMOTO, Atsushi SHIMODA, Seiko TAKI, and Atsushi KANAI*Data Analysis of Interest Continuation Factors for Creating Core Fans in Anime Production Projects
*Touta KIKUCHI and Hironori TAKUMA*Attribute Data Related to Permissible Range of Extreme Expressions in Japanese Reality Shows
*Yohei MORI and Hironori TAKUMA***12:10pm-1:30pm – Lunch on your own****1:30pm-3:10pm – Special Session 1C****Room 21 (A~B)**Chair: *Teruhisa Hochin, Kyoto Institute of Technology*Wavelet-Enhanced GAN for Image Outpainting
*Sugahara Ryuto and Weiwei Du*Generation of Plasma Discharge Video from a Single Frame by Using Conditional GAN
*Tran Vo Khanh Ngan, Teruhisa Hochin, Hiroki Nomiya, Hideya Nakanishi, and Mamoru Shoji*Common Substructures Extraction in Compounds: An Algorithm using Fragmentation and Chemical Notation
*Koshin Narita, Weiwei Du, Liang Zhao, and Liyou Han*Study on Shape Modeling Method of Underground Space
*Tatsunori Hayase and Ichi Kanaya*Precise 3-D modeling of art works and its reality evaluation
*Yuji Takii and Ichi Kanaya***1:30pm-3:10pm – Special Session 2****Room 22**Chair: *Yukihiro Shintani, Chiba Institute of Technology*Assessing the trustworthiness of individual system developers using SNS
*Takuya Iwami and Motoi Iwashita*Alternative Location Recommendation Methods to Avoid Crowding at Tourist Sites
*Kohki Inaba and Motoi Iwashita*Methodology for extracting regional characteristics from a tourism perspective
*Hiroaki Tsukamoto and Motoi Iwashita*Correlation between Decentralized Autonomous Organizations and Teal Organizations in the Organizational Structure
*Toru Takagi, Yukihiro Shintani, and Hideki Goromaru*Enhancing Disaster Preparedness in Chiba, Japan: The Role of Artificial Neural Networks in Flood Prediction
*Kanaka Balasubramanian and Motoi Iwashita***3:10pm-3:30pm – Coffee Break****Room 21 (C~D)**

3:30pm-5:10pm – Special Session 1D

Room 21 (A~B)

Chair: *Yuya Yokoyama, Advanced Institute of Industrial Technology*

Lifelog Tagging System Using Physiological and Environmental Indicators
Kimiko Hirose, Ryoma Ito, Keiko Yamamoto, and Ichi Kanaya

Internet of Toys for Measuring Drawing Skills and Supporting Childcare
Keiko Yamamoto, Taichi Fujihara, and Ichi Kanaya

Wood Strength Prediction via Log Section Images using Filtered Swin-Transformer Model
Junjiang Liu, Weiwei Du, Keiko Nakashima, and Keisuke Kojiro

The Effects of Selected Preferred Music on Perceived Emotions through Audiovisual Stimuli
Thunrada Thaiwong and Makoto Fukumoto

3:30pm-5:10pm – Special Session 3C

Room 22

Chair: *Atsushi Shimoda, Chiba Institute of Technology*

Quarterly Analysis of Purchasing Trends Using Product-specific Association Analysis
Yujiro KAWANISHI, Yoshiyuki TAKEDA, and Kazuhiko KATO

Analysis of Purchasing Trends and Product Recommendations of Customer Clusters for Each Product Using Bayesian Network
Kohta MURAMATSU, Yoshiyuki TAKEDA, and Kazuhiko KATO

Data Analysis on the Formation of Attachment to Its Related Area in the Related Population
Nyamaa SUNDERIYA, Keisuke ARAKI, and Kazuhiko KATO

6:00pm-8:00pm –Banquet

Art Hotel Kokura

Thursday, July 18, 2024

9:00am-10:35am – Registration

Room 21 (C~D)

9:30am-10:30am – Special Session 3D

Room 21 (A~B)

Chair: *Ken Nishimatsu, Chiba Institute of Technology*

Analysis of Conversation Content in Recreational Activities Moderated by Communication Robots
Atsushi SHIMODA, Shiro ITAI, and Toshimitsu HAMADA

Preference analysis for loyalty programs considering collaboration of ICT services and financial services
Ken NISHIMATSU and Akiya INOUE

A Study of the Effect of COVID-19 on Risk Perception Using Qualitative Time Series Data
Hideki GOROMARU and Yosuke OKUTSU

10:30am-10:35am Closing Remark (Program Chair)

Room 21 (A~B)