WSSE 2025 7th

2025 The 7th World Symposium on Software Engineering

October 24-26, 2025 | Okayama, Japan

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Welcome Message

We warmly invite the scientific community to join us for the 7th World Symposium on Software Engineering (WSSE 2025), taking place in Okayama University, Okayama, Japan, from October 24-26. Sponsored by Hiroshima University, Science and Engineering Institute, co-sponsored by Wuhan University, the University of Houston-Downtown, and Huaqiao University, with technical support from the University of Houston-Clear Lake, University of North Dakota, Chongqing University of Posts and Telecommunications, etc.

Our conferences are highlighted by three keynote speakers and two invited speakers, they are Prof. Tadashi Dohi from Hiroshima University; Prof. Jianjun Zhao from Kyushu University; Prof. Tatsuhiro Tsuchiya from The University of Osaka; Prof. Osamu Mizuno from Kyoto Institute of Technology and Prof. Raula Gaikovina Kula from The University of Osaka. Meanwhile, many people have put in long hours to make these conferences come to life. The list is too long to recognize everyone here, but we want to thank express our thanks to the conference technical committees, whose generous support to the paper reviewing work, which is vital for planning such an ambitious meeting.

We received more than 100 submissions around the world, after several rounds of review, there are about 55 submissions accepted for presentation by the conferences. The topics are including Software Testing and Reliability Analysis, Modern Integrated Information System Design and Data Management, Intelligent Software Design and Development, LLM-assisted Computer Programming Language and Application Development, Software Robustness Design and Information Security Analysis, Machine Learning and Data Models in Modern Computer and Information Engineering, Intelligent Software Design and Development Technology. One best presentation will be selected from each session, evaluated from: originality; applicability; technical Merit; qualities of PPT; English. The best one will be announced at the end of each session. We'd like to express our great appreciations to all the support from you, hope you can enjoy the conference!

Conference Organizing Committees

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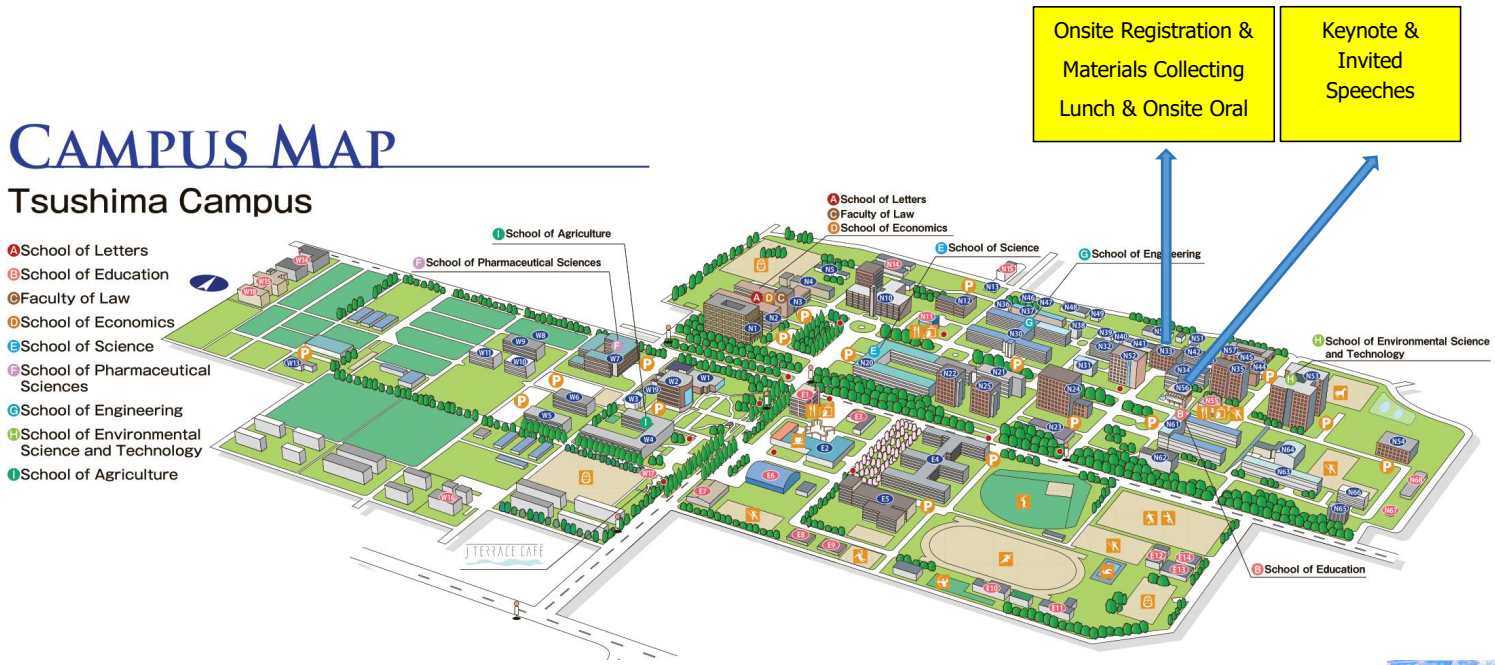
Conference Venue

OKAYAMA UNIVERSITY

Tsushima Campus, Okayama University
Add: 3-1-1 Tsushima-naka, Kita-ku, Okayama 700-8530 Japan

Time	Activities	Place
Oct. 24	Onsite Registration & Materials Collecting	Room 506 @ N33
Oct. 25	Onsite Registration & Materials Collecting (8:40–12:20)	OUX Hall @ N56
	Keynote & Invited Speeches	OUX Hall @ N56
	Onsite Oral Sessions	Lecture Room 10 @ N33 Lecture Room 11 @ N33
	Dinner	Conference room 14 @ N33



Access to Tsushima Campus

Access from Narita Airport:

By Domestic Flight:

There is no direct flight service from Narita to Okayama. If you would like to take a domestic flight from Tokyo, you need to go to Haneda (Tokyo) Airport, which is an approximately 75-minute bus ride from Narita Airport. The flight from Haneda to Okayama takes about 70 minutes.

(Please check with your preferred airline company for the air fare from Tokyo to Okayama.)

By Shinkansen (Bullet train):

You can take the Narita Express from Narita airport to Tokyo station, which takes about 1 hour. You can also take the limousine bus service, which can take up to 2 hours depending on the traffic. There are frequent Shinkansen services to Okayama from Tokyo station, and it takes about 3 hours and 15 minutes by the super express "Nozomi".

Access from Kansai Airport:

By Limousine Bus:

There is a direct limousine bus service to Okayama station, which takes about 3 hours and 30 minutes.

By Shinkansen (Bullet train):

Please take a train or a bus from Kansai airport to Shin-Osaka station. There are frequent Shinkansen services to Okayama station, which takes about 45 minutes by the super express "Nozomi", "Sakura", and "Muzuho".

Access from Okayama Airport:

Limousine Bus：

Limousine bus services are available from the airport to Okayama station. Please check the link below for the time table of the limousine bus services:
http://www.okayama-airport.org/en/access/okayama/

Taxi

Access from Okayama Station:

Taxi:

We recommend that you take a taxi from the station. There are several taxis waiting at both the east and west exits.

Bus:

There are frequent bus services from Okayama station to both the Shikata and Tsushima campus.

Presentation Guideline

❖ FOR EVERYONE

- The whole conference program is scheduled in **Tokyo Time (UTC+9)**.
- Please double check your Presentation Time, and adjust times to device's time zone.
- **English** will be the only language used for presentation.
- **Oct. 24:** For ZOOM Test (online participants) and Onsite Registration & Materials Collection (onsite participants).
- **Oct. 25**: Opening Remarks, Keynote Speeches, Invited Speeches, Parallel Sessions.
- **Oct. 26**: Online Sessions
- Each Keynote Speech is **40Mins**, Invited Speech is **20Mins**, each oral presentation is allocated with **15Mins** (10~12Mins presentation, 3~5Mins for Q&A), please prepare your English PPT in advance.
- **Group Photo** will be at the morning break time on Oct. 25, and there will be session group photo time at the end of each session.
- **One Best Presentation** will be chosen from each session and announced at the end of the session.

❖ FOR ONSITE PRESENTERS

- Enter the Session room and meet your Session Chair in advance before the session starts. Please bring your USB with your PPT slides and copy it to the conference laptop 15 Mins before the session starts, check your slides on the screen.
- Session room will be equipped with Laptop, Projector and Laser Pointer. To avoid time consuming it is suggested not to use your own laptop.
- Suggest you keep one copy of your PPT Slides file in your Email box, in case your USB does not work at session time.

❖ FOR ONLINE PRESENTERS

Please prepare:

- Computer with working camera and audio system.
- Stable Internet Connection (wired connection is preferable).
- Quite place with proper lighting.
- Unnecessary applications are shut down on your computer so all resources are allocated to the Zoom Meeting.
- **Rename** yourself with Session Number +Paper ID+Name, (eg. S1+WS1001+Lily LI), before entering meeting room.
- If you are Session Chair, please rename yourself with SC +Name.
- Enter **15 Mins prior** to your session in ZOOM, you cannot connect the meeting until "host" starting it.
- **Oct. 24** will be ZOOM TEST DAY, to help online delegates know better how to use ZOOM, try to Share Screen; Rename yourself. If you know well how to use ZOOM and no need to test, please email us in advance.
- Certificates will be emailed after the conference.

❖ Zoom Tool

- You could locate the session which you plan to attend and click on the "Zoom link", no password;
- Install Zoom App on your computer, "Join a Meeting" by inserting the meeting room ID. (Download from zoom.us or zoom.com.cn)
- Zoom Meeting ID: 857 1865 2957
- Zoom Meeting Link: https://us02web.zoom.us/j/85718652957

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Zichao Li, University of Waterloo
Zilu Liang, Kyoto University of Advanced Science

Conference Schedule

Oct. 24, 2025 (Friday, UTC +9)

11:00-12:00	**Online ZOOM Test**	**ID: 857 1865 2957**
10:00-16:00	**Onsite Registration & Materials Collecting**	**Room 506 @ N33**

Oct. 25, 2025 (Saturday, UTC +9)

8:40–12:20	**Onsite Registration & Materials Collecting**	**OUX Hall @ N56**
9:00-9:10	**Opening Remarks** Prof. Shaoying Liu, Hiroshima University	**OUX Hall @ N56**
	Welcome Address Prof. Akito Monden, Okayama University	
	Program Address Prof. Masateru Tsunoda, Kindai University	
9:10-09:50	**Keynote Speech I** Prof. Tadashi Dohi, Hiroshima University	
9:50-10:30	**Keynote Speech II** Prof. Jianjun Zhao, Kyushu University	
10:30-11:00	**Group Photo & Break**	**Foyer**
11:00-11:40	**Keynote Speech III** Prof. Tatsuhiro Tsuchiya, The University of Osaka	**OUX Hall @ N56**
11:40-12:00	**Invited Speech I** Prof. Osamu Mizuno, Kyoto Institute of Technology	
12:00-12:20	**Invited Speech II** Prof. Raula Gaikovina Kula, The University of Osaka	
12:20-13:30	**Lunch (Lunch-box)**	**Lecture Room 10 & 11 @ N33**
13:30-15:15	**Session 1** *Software Testing and Reliability Analysis*	**Lecture Room 10 @ N33**
	Session 2 *Modern Integrated Information System Design and Data Management*	**Lecture Room 11 @ N33**

15:15-15:30	**Coffee Break**	**Foyer**
15:30-17:30	**Session 3** *Intelligent Software Design and Development*	**Lecture Room 10 @ N33**
	Session 4 *LLM-assisted Computer Programming Language and Application Development*	**Lecture Room 11 @ N33**
17:30-19:00	**Dinner**	**Lecture Room 14 @ N33**

Oct. 26, 2025 (Sunday, UTC +9)

10:00-11:30	**Session 5 (Online Only)** *Software Robustness Design and Information Security Analysis*	**Zoom ID: 857 1865 2957**
11:30-13:30	**Lunch**	
13:30-15:15	**Session 6 (Online Only)** *Machine Learning and Data Models in Modern Computer and Information Engineering*	**Zoom ID: 857 1865 2957**
15:15-15:45	**Break**	
15:45-17:45	**Session 7 (Online Only)** *Intelligent Software Design and Development Technology*	**Zoom ID: 857 1865 2957**

Keynote Speeches

Prof. Tadashi Dohi

Hiroshima University

Speech Title: An Experimental Design for Software Bug Prediction

Tokyo Time	9:10-09:50, Oct. 25	Onsite Room	OUX Hall @ N56

Biography: Dr. Tadashi Dohi received the Bachelor of Science in Engineering (B.S.E.), Master of Engineering (M.E.), and Doctor of Engineering (Dr. of Eng.) degrees from Hiroshima University, Japan, in 1989, 1991, and 1995, respectively. In 1992 he joined as an Assistant Professor in the Department of Industrial and Systems Engineering, Hiroshima University. In 1992 and 2000, he was a Visiting Research Scholar in the Faculty of Commerce and Business Administration, University of British Columbia, Canada, and Hudson School of Engineering, Duke University, USA, respectively, on the leave absent from Hiroshima University. Since 2002, he has been working as a Full Professor in Hiroshima University. He is now the Dean of the School of Informatics and Data Science, and the Associate Dean of the Graduate School of Advanced Science and Engineering, Hiroshima University. His research areas include Reliability Engineering, Software Reliability, Dependable Computing, Performance Evaluation, Computer Security and Operations Research. He is a Regular Member of ORSJ, IEICE, IPSJ, REAJ and IEEE. He published over 644 peer-reviewed papers (285 journal papers and 359 conference papers), 49 book chapters, and 26 edited books/proceedings in the above research area. Dr. Dohi served as a General Chair/Program Committee Chair of over 20 international events, and worked as a Program Committee Member in many international premier conferences such as DSN, ISSRE, EDCC, SRDS, HASE, QRS, ICPE, SAC, among others. He is an Associate Editor/Editorial Board Member of dozens of international Journals including IEEE Transactions on Reliability. He is one of Founders of AIWARM/APARM and served as the Steering Committee Chair.

Abstract: Software bug prediction plays a crucial role for identifying bug-prone modules in software module testing and improving software quality and reliability. Since the underlying problem is reduced to a statistical discrimination problem with binary data and feature (covariate) data, called software metrics, a number of machine learning techniques have been employed to predict bug-prone modules accurately. However, it is worth noting that there does not exist the best machine learning model to provide always the best predictive performance for every data set. On one hand, because the above binary data are sparse in general, it is well known that the accurate prediction is not so easy and that data reprocessing procedure, called oversampling, is needed to improve the predictive performance in software bug prediction. Unfortunately, the best oversampling method has not been known for every machine learning technique as well.

In this talk, we explore a relationship between machine learning models and oversampling techniques to enhance the predictive performance in software bug prediction. We apply 22 representative machine learning models and 6 oversampling algorithms for software bug prediction, and evaluate the F-score for each combination. In addition to the single use of machine learning model, we develop a weighted machine learning model, referred to as model averaging, and investigate the prediction improvement. Especially, we employ the analysis of variance (ANOVA) to study interaction effects between machine learning models and oversampling algorithms. Experimental results with real software development project data sets show that that the model averaging by integrating all the machine learning models under oversampling algorithm could outperform most individual case in terms of highest F-score. The findings highlight effectiveness of the weighted machine learning model with appropriate oversampling strategy for addressing data imbalance.

Prof. Jianjun Zhao

Kyushu University

Speech Title: The Road to Reliable Quantum Software

Tokyo Time	9:50-10:30, Oct. 25	Onsite Room	OUX Hall @ N56

Biography: Jianjun Zhao is a Professor of Software Engineering at Kyushu University. With a background in program analysis, testing, and debugging, he now focuses on a central challenge of the quantum era: how to make quantum software as reliable as classical software. His group has developed methods and tools for testing, debugging, and repairing quantum programs, including the Bugs4Q benchmark, systematic testing of multi-subroutine programs, and an approach to automated repair with large language models (LLMs). He has published extensively in leading venues, served on the program committees of ICSE, ESEC/FSE, ASE, and ISSTA, and is an Associate Editor of ACM Transactions on Software Engineering and Methodology (TOSEM).

Abstract: Quantum computing is rapidly advancing, yet the road to reliable quantum software remains a critical challenge. In this talk, I will present our recent work on improving quantum software quality, covering testing, debugging, and automated program repair. More specifically, I will first discuss our work on testing quantum programs, including the generation of quantum test cases and the systematic testing of multi-subroutine quantum programs. Next, I will introduce our work on debugging and bug fixing for quantum programs, highlighting techniques that leverage the Bugs4Q benchmark and LLM-based repair. Lastly, I will briefly talk about the ongoing efforts to establish systematic frameworks for quantum software quality assurance, aiming to make quantum programs more reliable and maintainable.

Prof. Tatsuhiro Tsuchiya

The University of Osaka

Speech Title: 40 Years of Combinatorial Testing

Tokyo Time	11:00-11:40, Oct. 25	Onsite Room	OUX Hall @ N56

Biography: Tatsuhiro Tsuchiya is a professor in the Department of Information Systems Engineering at the University of Osaka. He received his M.E. and Ph.D. degrees from the same university in 1995 and 1998, respectively. His research interests include model checking, software testing, and dependable systems. He has served as program co-chair for the 21st IEEE Pacific Rim International Symposium on Dependable Computing (PRDC 2015), the 17th IEEE International Conference on Dependable, Autonomic and Secure Computing (DASC 2019), and the 13th International Workshop on Combinatorial Testing (IWCT 2024).

Abstract: Combinatorial testing has been used in software development for the past forty years. The core idea is to use discrete mathematical structures to construct test suites that cover combinations of test parameter values with as few test cases as possible. In this talk, I'll introduce the basic concept, review its history, and outline some key algorithms and practical applications. I'll also touch on its use in testing AI applications.

Invited Speech

Prof. Osamu Mizuno

Kyoto Institute of Technology

Speech Title: Bugs in the Repo, Bugs in the Bushes: Case Studies in Software Repositories Mining

Tokyo Time	11:40-12:00, Oct. 25	Onsite Room	OUX Hall @ N56

Biography: Osamu Mizuno is a Professor in Kyoto Institute of Technology. He received his M.E. and Ph.D. degrees from Osaka University in 1998 and 2001, respectively. He served as an Assistant Professor at Osaka University and, since 2009, has been with the Kyoto Institute of Technology as an Associate Professor, where he is currently a Professor in the Faculty of Information and Human Sciences. His research interests include software repositories mining, fault-prone module prediction, software process improvement, and risk evaluation and prediction in software development. He is a member of IEEE, IPSJ, and IEICE.

Abstract: In this talk, the speaker introduces a series of recent and ongoing research topics in the area of software repository mining and software fault detection. Mining software repositories has become an essential approach to empirically study software engineering practices, as it enables researchers and practitioners to analyze large-scale, real-world development data. Building upon this perspective, the talk revisits several past studies, including the impact of feature reduction techniques on defect prediction models, an empirical study of issue-link algorithms that connect bugs and commits, the benefits and pitfalls of token-level SZZ in identifying bug-introducing changes, and an empirical study of token-based micro commits. These works highlight both methodological challenges and practical implications in handling fine-grained software artifacts. Furthermore, the speaker presents more recent progress, with a focus on two approaches for improving faulty interaction localization using logistic regression analysis. These approaches aim to enhance the accuracy and efficiency of identifying fault-inducing interactions in software systems, thus contributing to more reliable defect detection and debugging support.

The significance of these studies lies in their potential to improve the quality and maintainability of software systems, which are increasingly critical to society. As modern software projects grow in complexity and scale, traditional defect detection methods often fail to capture subtle yet important sources of faults. By advancing techniques such as fine-grained commit analysis, improved issue-linking, and statistically grounded localization models, this line of research contributes to reducing maintenance costs, preventing system failures, and ultimately enabling developers to deliver more robust software. Through this talk, the audience will gain insights into not only the technical contributions but also the broader impact of empirical research on the future of software quality assurance.

Prof. Raula Gaikovina Kula

The University of Osaka

Speech Title: Software Ecosystems: Where Do We Go From Here?

Tokyo Time	12:00-12:20, Oct. 25	Onsite Room	OUX Hall @ N56

Biography: Raula Gaikovina Kula is a professor at the Graduate School of Information Science and Technology, Osaka University. He is also a designated professor at the Osaka University Institute for Advanced Co-Creation Studies. He received his Ph.D. from Nara Institute of Science and Technology (NAIST) in 2013, later joining as a Specially-Appointed Assistant Professor from (2013-2016) at Osaka University. He then continued as a Specially-Appointed Assistant Professor from (2017), later becoming an Assistant Professor (2017-2023), and an Associate Professor (2023-2024) at NAIST. Kula has published over 150 publications in top Software Engineering venues, collaborating with several researchers from across the globe, and is a member of both Editorial and Steering Committees.

Abstract: In this talk I will provide insights into the complexities of software ecosystems, trends and in the light of the AI invasion. In my research, my colleagues and I investigate different open source software ecosystems, and their technical, social and societial. Finally, I look at the different possibilities for the future in light of Generative AI and the role it will play in both Open Source and Software Engineering.

Onsite Oral Sessions

Session 1: Software Testing and Reliability Analysis 13:30-15:00, Oct. 25 | Lecture Room 10 @ N33 Chair: Shin-Jie Lee, National Cheng Kung University		
13:30-13:45	WS1007	Traceability and Detect Forgery Platform of Digitally Important Educational Documents for Grade 6 Secondary Schools Case Study of the Northeastern Region, Thailand **Kritsanaphon Saengprachum**, Suntorn Kunjansee, Piyawat Saipan and Wararat Songpan Khon Kaen University
13:45-14:00	WS1012-A	Measuring Sliding Animation Waiting Time to Improve Robustness in Record-Replay Web GUI Testing Te-Hung Lu, **Shin-Jie Lee** National Cheng Kung University
14:00-14:15	WS1017	A Note on Software Reliability Modeling Based on Hawkes Processes with Gamma Type Base Intensity **Nanxiang Qiu**, Tadashi dohi, Junjun Zheng, Hiroyuki Okamura Hiroshima University
14:15-14:30	WS1016	Scrum for Safety-Critical Software Development: Understanding the Applications of an Agile Methodology in Rigid Development Environments **Francis Carlo Del Campo**, John Reniel Cruz, Khenjie Cruz, Efraim Jededia Z. Pangan, and Roma Joy D. Fronda University of the Cordilleras
14:30-14:45	WS1020	A Probabilistic Least Squares Estimation For NHPP-based Software Reliability Models with Time-domain Data **Jingchi Wu**, Tadashi Dohi, Junjun Zheng, Hiroyuki Okamura Hiroshima University
14:45-15:00	WS1059	Mining Exception Rules from Eclipse and NetBeans Defect Dataset **Catherine Francis Mangare**, Hiroshi Aoyagi, Hiroki Inayoshi, Akito Monden Okayama University

Session 2: Modern Integrated Information System Design and Data Management 13:30-15:15, Oct. 25 | Lecture Room 11 @ N33 Chair: James J. Lee, Seattle University		
13:30-13:45	WS1021	An Application of ChatGPT4o to Generate Requirement Definition Documents and Its Evaluation: An Industrial Case Study **Takeshi Niiyama**, Hirohisa Aman, Takashi Ninomiya Ehime University
13:45-14:00	WS1014-A	Are We Ready for AI? Different Tales for Different Industries Benjamin Yeo, **James J. Lee** Seattle University
14:00-14:15	WS1018	Patterns and Widgets for Collaboration Awareness in Next-generation Groupware **Crescencio Bravo**, Ana I. Molina, Manuel Ortega-Cordovilla University of Castilla-La Mancha
14:15-14:30	WS1083	WearStreamer: Enabling High-Resolution Health Data Acquisition from Consumer Smartwatches Zilu Liang, **Nhung Huyen Hoang** Kyoto University of Advanced Science
14:30-14:45	WS1031	Cross-Process Error Detection in Industrial Screw Driving Operations Using Time Series Classification **Nikolai West**, Marco Klute, Hans-Peter Heim, Jochen Deuse RIF Institute for Research and Transfer e.V.
14:45-15:00	WS1084-A	GlucoSurf: Engineering Interactive 3D Visualization for Exploring Postprandial Glucose Dynamics Luna Lococo, Thilini Savindya Karunarathna, Nhung Huyen Hoang, Zilu Liang, **Thilini Karunarathna** Kyoto University of Advanced Science
15:00-15:15	WS1067	Employee Performance when Implementing Agile Practices in an IT Workforce Muhammad Hamid Raza Mookadam, **Ridewaan Hanslo** University of Johannesburg

Session 3: Intelligent Software Design and Development 15:30-17:30, Oct. 25 | Lecture Room 10 @ N33 Chair: Emanuel S. Grant, University of North Dakota		
15:30-15:45	WS1036-A	Software Engineering for PMS Self-Care: Integrating Clinical Assessment with Data-Driven Health Management on Smartphones **Pankhuri Raj**, Nhung Huyen Hoang, Zilu Liang Kyoto University of Advanced Science
15:45-16:00	WS1060	Level of Satisfaction Among Users of the E-Gov Application 'Sahel' in the State of Kuwait **Abdullah Alshehab**, Ali Alfayly, Naser Alazemi Public Authority for Applied Education and Training
16:00-16:15	WS1039-A	Developing Serious Games on WearOS: A Software Engineering Perspective on Wearable-Game Integration **Nhung Huyen Hoang**, Hayden Morrison, Thilini Savindya Karunarathna, Zilu Liang Kyoto University of Advanced Science
16:15-16:30	WS1065	Implementing DevSecOps: A Systematic Literature Review on Integrating Security into DevOps **Jenny Ann T. Guyong**, Rjanna Miki M. Balaybay, Justine Mae Macario, Efraim Jededia Z. Pangan, Jhun Russel D. Clemente University of the Cordilleras
16:30-16:45	WS1086-A	A Layered Software Stack for Web-Based Glucose Prediction and Visualization **Thilini Karunarathna**, Nhung Huyen Hoang, Salma Khurshe, Andrew Beten, Luna Lococo, Ayaan Baig, Zilu Liang Kyoto University of Advanced Science
16:45-17:00	WS1100-A	Analyzing the Factors of Professional Identity in Software Engineers **Kensei Hamamoto**, Sumika Jinnouchi, Yukasa Murakami, Masateru Tsunoda, Akito Monden Kindai University
17:00-17:15	WS1102-A	Pedagogy for Undergraduate Education in Model-Driven Object-Oriented Software Engineering, with Ethical Considerations **Emanuel S. Grant** University of North Dakota

17:15-17:30	WS1069	The Evolution of Agile and Hybrid Project Management Methodologies: A Systematic Literature Review Bianca Leech, **Ridewaan Hanslo** University of Johannesburg

Session 4: LLM-assisted Computer Programming Language and Application Development 15:30-17:15, Oct. 25 | Lecture room 11 @ N33 Chair: Shaoying Liu, Hiroshima University		
15:30-15:45	WS1009	LLM-based Formality Ranking of Candidate Translations **John S. Y. Lee,** Qiong Wang City University of Hong Kong
15:45-16:00	WS1015	Code Clone Refactoring in C# with Lambda Expressions **Takuto Kawamoto,** Yoshiki Higo The University of Osaka
16:00-16:15	WS1023	A Software Tool to Support Structured Object-Oriented Programming **Ying Xia,** Shaoying Liu East China Normal University
16:15-16:30	WS1032	PACGBI: A CI/CD Pipeline for LLM-assisted Code Generation of Web Front End Gefei Zhang, **Mahja Sarschar,** Annika Nowak HTW Berlin
16:30-16:45	WS1034	Implications of Self-Reported Attitudes Towards UML in Bachelor and Master Software Engineering Courses **D. Moritz Marutschke,** Anja Metzner, Patricia Brockmann, Tri Astoto Kurniawan, Mate Kovacs, Victor V. Kryssanov Ritsumeikan University
16:45-17:00	WS1080	ContextualSHAP: Enhancing SHAP Explanations Through Contextual Language Generation **Latifa Dwiyanti,** Sergio Ryan Wibisono, Hidetaka Nambo Kanazawa University
17:00-17:15	WS1101-A	Measuring the Difficulty of Program Comprehension Using NST and HRV **Ryota Mizutani,** Masateru Tsunoda, Keitaro Nakasai Kindai University

Online Oral Sessions

Session 5: Software Robustness Design and Information Security Analysis 10:00-11:30, Oct. 26 | Zoom ID: 857 1865 2957 Chair:		
10:00-10:15	WS1045	Simulating QR Code Scanner Phishing Attacks: Investigating Vulnerabilities in QR Scanning and Reading Mechanisms Leading to Cookie and Data Exposure in Organization Environment Eric Blancaflor, Michelle Algabre, Clyde Justin Angeles, Andrei Goc-Ong, Enrique Karl Liberato, **William P. Rey**, Lester Ladera Mapua University
10:15-10:30	WS1011	From Scenario to Code: Structured Prompting for LLM-Based Unit Test Generation **Aminata Diop**, Fadel Toure, Mourad Badri University of Quebec at Trois-Rivieres
10:30-10:45	WS1052	Strengthening Resilience in DriveCare: A Thorough Assessment of Security Posture **William P. Rey**, Alberto Villaluz, Robert Dadigan Mapua University
10:45-11:00	WS1098	An Empirical Study on Software Design Inspections – Effectiveness of Software Design Error Taxonomy **Tushar Agrawal**, Vaibhav K. Anu, Gursimran Singh Walia North Dakota State University
11:00-11:15	WS1071	A Secured Cloud Integration Network Design and Fault Tolerant for file and Application Sharing in a Medium Size Business Environment **Bryan Penuliar**, William Rey Mapua University
11:15-11:30	WS1079	Simulating Phishing Attacks via Social Media: Assessing Student Vulnerabilities to Hidden Malicious Links Using Zphisher Eric Blancaflor, Aron Clark Bataller, John Benjamin Dulay, Alain Marcus Leyva, Ivan Jay Medina, Mideth Abisado, **Lester Ladera** Mapua University

Session 6: Machine Learning and Data Models in Modern Computer and Information Engineering 13:30-15:15, Oct. 26 | Zoom ID: 857 1865 2957 Chair: Alberto Villaluz, Mapua University		
13:30-13:45	WS1004	Machine Learning-Based Skin Lesion Classification with Feature Importance Analysis using SVM for Dermoscopy Images in the Philippines Elson Benn Macalinal, Camille Marie Esteller, Luke Fernandez, Joel De Goma, **Alberto Villaluz** Mapua University
13:45-14:00	WS1005	Exploratory Analysis of Audio Features for Dominant Feature Identification: A Multimodal Machine Learning Evaluation of Song Popularity Prediction Using Deep Neural Networks, Clustering, and Regression Models Jaime Rodolfo Tuason, Sean Fredrick Cruz, Mackleine Espino, Joel de Goma, **Alberto Villaluz** Mapua University
14:00-14:15	WS1028	Deep Sentiment Analysis on Online Learning Tweets Using CNN, LSTM, and CNN-LSTM **Joel De Goma,** Paz Maive An Castillo, Jericho Dimaano, Alberto Villaluz, Blair M. Deang, Vincent Raquedan Mapua University
14:15-14:30	WS1048	Solid Waste Detection with YOLOv9 Using Preprocessing Techniques and Experimental Evaluation Ashley Sybil Manalo, Allen Kyle Sabilala, **Elcid A. Serrano,** Joel de Goma Mapua University
14:30-14:45	WS1050	Analyzing the 2024 U.S. Presidential Elections: BERT-based Sentiment Classification of Spoken Content in Video Data Joel De Goma, Joshua Reynald Labrado, Reaven Dupitas, Saleh Ahmed Mohammed Obied Al-Jizani, Alberto Villaluz, **Elcid A. Serrano** Mapua University
14:45-15:00	WS1081	Hybrid Approach Using GANS And Multivariate Regression to Analyze the Impact of Acoustic Variables on Piezo Transducer Output Rufo I. Marasigan Jr., Alexis A. Ardiente, Napski Rudolph A. Pacleb,

		Gerard Francesco DG. Apolinario Technological Institute of the Philippines
15:00-15:15	WS1082	CFAIR: A Cloud-Hosted Commerce System for Managing Fish Products Utilizing Hyperledger Fabric Blockchain for Data Governance John Rhyz Pulgar, James Rodley Chan, Morris Myles Ly, **William Rey** Mapua University

Session 7: Intelligent Software Design and Development Technology 15:45-17:45, Oct. 26 | Zoom ID: 857 1865 2957 Chair: Patricia Brockmann, Nuremberg Institute of Technology		
15:45-16:00	WS1033	Using Item Personality-Based Profiling in Music Recommender System Jan Nielsen Añonuevo, Gian Nicole Pangan, Alberto Villaluz, John Jovaniel Deang, **Joel De Goma** Mapua University
16:00-16:15	WS1051	"Make it PAWssible", a Client-Specific Dedicated Progressive Web Application for Whelps Animal Shelter Darwin Christian Leonardo, James Jefferson Romero, Nico Adrian Suyat, **Reginald Verdida,** Geldof Resuello, Alberto Villaluz Mapua University
16:15-16:30	WS1068	Architecting A Behavior-Driven Test Automation Framework for CI/CD Environments **Abhirup Chatterjee** Independent Researcher
16:30-16:45	WS1091	Bakr: A 3D-Interactive App for Homemade Pastry Baking Step-by-Step Guides and Techniques Raineir Espinola, James Garnet Laca, Julian Carlos Ubalde, **Reginald Verdida,** Elcid Serrano Mapua University
16:45-17:00	WS1096	A Systematic Literature Review of Workflow Efficiency in Software Development Through the Kanban Framework **Jc Aushley Villanueva,** Lady Venice Villanueva, Marga Chawag, Efraim Jededia Pangan, Eugene Frank Bayani, Jhun Russel Clemente University of the Cordilleras
17:00-17:15	WS1097	A Systematic Literature Review on the Application of Scrum in Application Development Harlene Luy Fook, Althea Aquilino, **Micah Angela Cagas,** Efraim Jededia Pangan, Joan Peralta, Jhun Russel Clemente University of the Cordilleras

17:15-17:30	WS1019	Authentic Teaching and Assessment: Simulation of an Off-Shoring Project with Geographically Distributed Teams Dana Plessing, **Patricia Brockmann**, Tri Astoto Kurniawan, Daniel Moritz Marutschke, Victor V. Kryssanov Nuremberg Institute of Technology
17:30-17:45	WS1037	Secure XP Programming: Integrating OWASP Practices and Lightweight Threat Modelling into Extreme Programming **Ayah Aljabali**, Muawya Aldalaien Princess Sumaya University for Technology

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