### International Symposium on Life Mechatronics 2024, Phnom Penh (LMS 2024)











Date: December 27, 2024

**Venue:** Room 109, Building A, Institute of Technology of Cambodia (ITC)

**Organizer:** Committee of Life Mechatronics Symposium (LMS)

Cooperative Research Committee on Life Mechatronics for Smart Agriculture, Perceptual Information

on C-branch (CPI) in the Institute of Electrical Engineers of Japan (IEEJ)

**Co-organizer:** Institute of Technology of Cambodia (ITC)

JICA Project

### AGENDA for Friday, December 27, 2024

Time	Contents	Presenter
08:30-09:00	Registration	
Session Chair:	Dr. Ket Pinnara	•
09:00-09:30	Opening Ceremony	
	Opening remark by Chairperson	Dr. Chrin Phok
	Introduction of the symposium	Prof. Motoharu Fujigaki
	Research activities at ITC	Dr. Or Chanmoly
9:30-10:00	Invited Talk: History of Pepper after Civil War and	Mr. Hironobu Kurata, Kurata
	Agricultural Development in Cambodia	Pepper Co
10:00-10:10	Photo session	
10:10-10:30	Coffee break	
Session Chair:	Dr. Valy Dona	
10:30-10:50	Presentation 1: Individuality Prediction of Pain Facial Expressions Based on Permanent Wrinkles	Prof. Tsuyoshi Moriyama,
		Tokyo Polytechnic University,
		Japan

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10:50-11:10	<b>Presentation 2:</b> Building Mekong Farm app based on the	Mr. Thein Soe Min,
	findings of farmers' behaviors	Greenovator, Myanmar
11:10-11:30	Presentation 3: Primary Industry Support using Image Processing Technology and Applying to Educational Activity	Prof. Masashi Toda, Kumamoto University, Japan
11:30-11:50	<b>Presentation 4:</b> Audio2Video: Advancing Generative AI for Realistic Virtual Person Creation	Mr. Sovanvichea Yann, Institute of Technology of Cambodia
11:50-12:10	Presentation 5: Enhancing Rice Farming in Smart Agriculture of Myanmar	Ms. Soe Kalayar Naing, University of Information Technology, Myanmar
12:10-13:30	Luncheon Poster Session  Poster 1: Web Application Heing Deep Learning	
	Poster 1: Web Application Using Deep Learning Approaches for Automated Prediction of Tomato Leaf Disease	Mr. Ey Rey, Institute of Technology of Cambodia
	<b>Poster 2:</b> A Proposal for Data Sharing Infrastructure for Smart Agriculture	Mr. Kouya Arashiro, Tokyo Polytechnic University, Japan
	<b>Poster 3:</b> Robust Detection of Dead Fish under Water Surface Fluctuations	Mr. Manato Yoshida, Tokyo Polytechnic University, Japan
	<b>Poster 4:</b> Handwriting identification from Khmer script using Multiple features with deep learning approach	Mr. Kimlong Ngin, Institute of Technology of Cambodia
	Poster 5: Analysis of Online Job Recruitments to Identify Industry's Trending Skills for Designing Market-Aligned Curriculum	Ms. Sela Songeam, Institute of Technology of Cambodia
	Poster 6: Khmer Speech Recognition and Text-to-Speech	Ms. Prakmlis Soeng, Institute of Technology of Cambodia

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	Poster 7: Conversational Chatbot in Khmer	Mr. Sopheap Sou, Institute of Technology of Cambodia		
Session Chair: Dr. Pec Rothna				
13:30-13:50	Presentation 6: Deformation Measurement for Infrastructure Health Monitoring Using Image-Based Phase Information Analysis	Prof. Motoharu Fujigaki, University of Fukui, Japan		
13:50-14:10	Presentation 7: Improved Image Processing Using RGB-D Ortho Image with Dimension Information	Prof. Hirooki Aoki, Chitose Institute of Science and Technology, Japan		
14:10-14:30	Presentation 8: Assessing the Effects of Climate Change on the Yield and Water Use Efficiency of Various Dry-Season Rice Varieties Grown under Traditional and Alternate Wetting and Drying (AWD) Methods	Ms. Chan Arun Phoeurn, Institute of Technology of Cambodia		
14:30-14:50	Presentation 9: Evaluating Machine Learning Models for Predicting Energy Trade Based on Renewable Energy: A Comparative Study of Regression Techniques	Mr. Ensophea Toch, ACLEDA University of Business, Cambodia		
14:50-15:10	Presentation 10: Proposal of Accuracy Evaluation Sheet for 3D Measurement System Using Fringe Projection Method	Mr. Taiki Nishio, University of Fukui, Japan		
15:10-15:30	Coffee break			
Session Chair:	Dr. Chrin Phok			
15:30-15:50	Presentation 11: All-surrounding 3D Shape Reconstruction by Convex-tape Driven Parallel Robot	Mr. Reo Yamada, Chitose Institute of Science and Technology, Japan		

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15:50-16:10	<b>Presentation 12:</b> Proposal of Volume Estimation Method for Cherry Tomato Fruits Using 3D Image Measurement	Mr. Shimpei Okado, Chitose Institute of Science and Technology, Japan
16:10-16:30	Presentation 13: Continuously Uploading Data to Google Sheet using Linear Network Coding	Mr. Kimlong Ly, Institute of Technology of Cambodia
16:30-16:50	Certificate Award Ceremony	
16:50-17:00	Closing	