

PROGRAM

International Symposium on Life Mechatronics 2025, Phnom Penh (LMS 2025)



一般社団法人
電気学会



Date: December 26, 2025

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 INACON Project

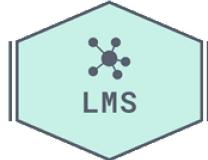
Time	Contents	Presenter
8:00-8:30	Registration	
Session Chair: Dr. Ket Pinnara		
8:30-9:00	Opening Ceremony <ul style="list-style-type: none">Opening remarkIntroduction of the symposiumResearch activities at ITC	Dr. Bun Long Prof. Fujigaki Motoharu Dr. Or Chanmoly
9:00-9:30	Keynote Talk 1: Brief Overview of Metrology	Mr. Kong Pagnarith, National Metrology Centre, MISTI
9:30-10:00	Keynote Talk 2: [TBD]	Mr. Duch Sam On, Department of Agricultural Engineering, MAFF
10:00-10:10	Photo session	
10:10-10:30	Coffee break	
Session Chair: Dr. Pec Rothna		
10:30-10:45	Presentation 1: Applications of Surface Electromyography in Human Movement Science, with Implications for Smart Agriculture and STEAM Education	Tomita Aya, NGU

PROGRAM

International Symposium on Life Mechatronics 2025, Phnom Penh (LMS 2025)



一般社団法人
電気学会



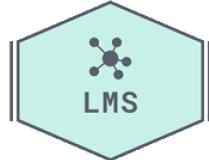
10:45-11:00	Presentation 2: Real-Time Edge Detection Framework for Autonomous Driving Car Using Traditional Machine Learning on Raspberry Pi 3B	Sal Chomrong, RUPP
11:00-11:15	Presentation 3: A Study on the Development of Malicious Human Interface Device (HID)-based USB injection attacks	Horn Sovisal, CADT
11:15-11:30	Presentation 4: An LLM-Based Approach for Extracting In-Demand Job Skills to Enable AI-Powered Curriculum Enhancement	Yean Seyha, ITC
11:30-11:45	Presentation 5: Development of a Deformation Measurement Method Using SfM-MVS and Sampling Moire Method with Reference Grating Based Correction	Itakura Shohei, UFukui
11:45-12:05	Sakura Science Program	Prof. Aoki Hirooki, CIST
12:05-13:30	Luncheon Poster Session	
	Poster 1: Real-Time Balance and Gait Control for Quadruped Robot on Flat Terrain	Thai Phanny, ITC
	Poster 2: High-Performance Modular Actuator for Dynamic Robotics	Nhor Sophea, ITC
	Poster 3: Building a Multi-direction Conversational Chatbot in Khmer	Sou Sopheap, ITC
	Poster 4: Next-Stroke Prediction for Khmer Online Handwriting Using Recurrent Neural Networks	Lim Techchhiv, ITC
	Poster 5: AI-Based Vision System for Intelligent Plant Detection to Support Smart Autonomous Agriculture	Tom Tito, ITC
	Poster 6: A Study on RF Signal Jammer for Wi-Fi Using a Software-Defined Radio (SDR) Module	Hor Tola, CADT
	Poster 7: Real-Time Pose Recognition with Localized Audio Assistance	Hiek Lymonyratanak, ITC
	Poster 8: A Deep Reinforcement Learning Framework for Khmer Chess AI	Ol Pheurn, ITC

PROGRAM

International Symposium on Life Mechatronics 2025, Phnom Penh (LMS 2025)



一般社団法人
電気学会



	Poster 9: Morphological Identification of Fungal Diseases in Chili	Voeurn Didavy, RUPP
	Poster 10: AI-Driven Intelligent Document Processing for Automated Loan Operations in the Banking Sector	Buth Khemra, ITC
	Poster 11: Morphological Characterization, and Biocontrol Evaluation of Trichoderma sp. Against Fusarium spp. Associated in Watermelon (Citrullus lanatus)	Phay Davidveasna, RUPP
	Poster 12: Environment-Sensing-Based Automatic Irrigation System	Koya Arashiro, Tokyo Polytechnic University
	Poster 13: Energy-Aware Sensor Fusion Control for Off-Grid Solar-Powered Deep Water Culture Systems	Chorn Lathea, ITC
	Poster 14: Prioritizing Fish Passage Barriers at CHREY BAK river In Kampong Chhnang Province	Tang Kimsreang, RUA
	Poster 15: Study on the Local Communities' Livelihoods that Depend on Non-Timber Forest Products and Forest Products in the Kbal Kla Community Forest, Sandan District, Kampong Thom Province	Ngan Panha, RUA
	Poster 16: Farmer Perspectives on Productivity: Evaluating Two Rice Systems in Battambang, Cambodia Amid Changing Flood and Sediment Dynamics	Leang E Heng, NUBB
Session Chair: Prof. Moriyama Tsuyoshi		
13:30-13:45	Presentation 6: Experimenting on the Relationship Between NDVI and Water Content in Leafy Crops	Hel Chanthan, ITC
13:45-14:00	Presentation 7: End-to-End Khmer Text-to-Speech System Using VITS2	Mao Hieng, CADT
14:00-14:15	Presentation 8: Deep Learning-Based Fringe Enhancement for Improving Phase Stability in WSTM Calibration	Lim Phing, UFukui
14:15-14:30	Presentation 9: IoT-Based Pothole Detection and Road Roughness Analysis Using Offline Data Processing	Lim Hengtong, CADT

PROGRAM

International Symposium on Life Mechatronics 2025, Phnom Penh (LMS 2025)



一般社団法人
電気学会



14:30-14:45	Presentation 10: Design and Implementation of a Low-Cost System for RF Signal Monitoring	Kong Dariya, CADT
14:45-15:00	Presentation 11: Proposal of Volume Estimation Method for Cherry Tomato Fruits Using RGB-D Orthographic Image	Shimpei Okado, CIST
15:00-15:30	Coffee break	
Session Chair: Dr. Valy Dona		
15:30-15:45	Presentation 12: Comparative Evaluation of Machine Learning Models for PM2.5 Forecasting in Phnom Penh City	Roeum Makara, CADT
15:45-16:00	Presentation 13: Ensemble-based Malicious URL Detection	Ang Ousa, ITC
16:00-16:15	Presentation 14: Toward End-to-End Document Layout Analysis for Khmer Document	Chab Sreylen, ITC
16:15-16:30	Presentation 15: Integrating 3D Shape Measurement and Micro-displacement Detection with an RGB-D Camera and External Pattern Projection	Waku Sato, CIST
16:30-16:45	Presentation 16: Mediapipe hand Landmark preprocessing for LSTM-based Sign Language Recognition	Seng Darareaksmei, ITC
16:45-16:55	Certificate Ceremony	
16:55-17:00	Closing	