ASEAN IVO Forum 2026
Program

Date: Wednesday, November 18, 2026
Venue: Dewan Seminar, Ilmuan 1, Ilmuan 2

09:30 Registration
MC: Ms. Nurul Shimah Bte Shumsudin, UTM
Universiti Teknologi Malaysia, Malaysia

10:00 **Opening Session (Dewan Seminar)**
Opening Adress
Dr. Ali bin Selamat, Deputy Vice Chancellor
Universiti Teknologi Malaysia, Malaysia

Opening Adress
Dr. OHNO Hideo
President
National Institute of Information and Communications Technology (NICT), Japan

Welcome Remarks
H.E. SHIKATA Noriyuki,
Ambassador Extraordinary and Plenipotentiary of Japan to Malaysia

Invited Talk 1
Dr. Ali bin Selamat, Deputy Vice Chancellor
Universiti Teknologi Malaysia, Malaysia

Invited Talk 2: From Data Silos to Citizen-Centred Services: A Malaysian Disability-Support Journey, with Lessons from Japan
Dr. Nor Hazilawati Awang
Technology Advisor,
Ventrade Technology Sdn. Bhd.

10:55 Group Photo & Break

Oral Session: *20minutes (15 minutes for presentation and 5 minutes for Q&A)*

11:30 **Session 1: ICT for food**

Chair: Dr. Hoang Dang Hai, Posts and Telecommunications Institute of Technology (PTIT), Vietnam

S1-1. SAGE-Agri: Secure Air–Ground Edge Intelligence with Semantic Communications for Crop Monitoring and Targeted Irrigation
Hoang Trong-Minh
Posts and Telecommunications Institute of Technology (PTIT), Vietnam

S1-2. AIoT-Based Monitoring and Prediction of Plant Stress in Fine Robusta Coffee: A Case Study at PIDA Coffee Farm, Mondulkiri Province, Cambodia
Sovatna Phon
Prek Leap National Institute of Agriculture, Cambodia

S1-3. AI-Driven Food Security and Climate-Resilient Agriculture in Timor-Leste: From Crop Vision to Intelligent Agricultural Decision Support
Abreu Andre Boavida
National University of Timor-Leste, Timor-Leste

S1-4. Low-Cost Federated AI for Transboundary Rice Pest and Disease Early Warning in the Lower Mekong Region
Duy-Dong Le
The Mekong Campus of University of Economics Ho Chi Minh City (UEH Mekong), Vietnam

S1-5. Cross-Origin AI Grading of Post-Harvest Crop Quality: From a Validated Thai Cocoa System Toward a Shared ASEAN Standard for Fair Smallholder Pricing
Supavadee Aramvith[1], Tansiphorn Na Nan[1], Watchara Ruangsang[2]
1. Chulalongkorn University, 2. King Mongkut's University of Technology Thonburi, Thailand

13:10 **Lunch**

11:30 **Session 2: ICT for Environment Protection and Disaster Prevention**

Chair: Prof. Alejandro Ballado, Mapua University, the Philippines

S2-1. Low-Cost Dual-Receiver Wi-Fi Channel State Information Sensing of Human Presence and Respiration under Non-Line-of-Sight Conditions for Post-Disaster Search and Rescue
Qintar Alifah Ristiana, Suhono Harso Supangkat
Institut Teknologi Bandung, Indonesia

S2-2. Quantifying Shared ASEAN Wave Observations for Coastal Wave Forecast Lead Time in the South China Sea
Ho Jun Ang, Daphne Lai, Hayati Yassin
Universiti Brunei Darussalam, Brunei

S2-3. Metbuoy+ Early Warning System: Engineering a Field-Reliable, Data-Driven Algorithm for Fish-Kill Early Warning in Philippine Inland Aquaculture
Gerwin Guba
DOST-Advanced Science and Technology Institute, the Philippines

S2-4. Fire Visual Intelligence for Wildfire Surveillance and Early Warning (FireVIZ)
Pikul Vejjanugraha[1], Jessada Karnjana[2]
1. Chiang Mai University, 2. National Electronics and Computer Technology Center (NECTEC), Thailand

13:10 **Lunch**

14:30 **Session 3: ICT for Health and Welfare 1**

Chair: Dr. Budi Prawara, Research Organization for Electronics and Informatics, National Research and Innovation Agency (BRIN), Indonesia

S3-6. Intelligence Technology - Enabled Health Monitoring and Climate-Adaptive Home Care System for Elderly Societies

Khamla NonAlinsavath

National University of Laos, Laos

S3-7. PHN Dermalytica: Building an AI-Driven Collaborative Platform for Evidence-Based Skin Health Research in ASEAN

Putu Harry Gunawan[1], Bambang Pudjoatmodjo[1], I Wayan Palton Anuwiksa[1], Ahmad Bintang Arif[1], Ida Ayu Manik Partha Sutema[2], Keri Lestari[3], Angelina Prima Kurniati[1]

1. Telkom University, 2. Bali International University, 3. Padjadjaran University, Indonesia

S3-8. Transforming Community Dengue Early Warning System (C-DEWS) Using Multimodal Federated Learning for Dengue Hotspot Prediction and Risk Assessment

Betchie Estanislao Aguinaldo, Alyssa Jeanne Morales Sicam

Isabela State University, the Philippines

S3-9. An Inclusive AI-Powered Screening Platform for Automated Urinary Stone Detection on KUB X-ray Films: Scaling Healthcare Accessibility across the ASEAN Region

Sutat Sae-Tang[1], Payathsone Singkhamchanh[3], Wattanachai Ungjaroenwathana[2]

1. National Electronics and Computer Technology Center (NECTEC), 2. Sunpasitthiprasong Hospital, Thailand

3. Mahosod hospital, Laos

15:50 **Break**

14:30 **Session 4: Session 4 ICT for Secure and Smart Community 1**

Chair: Dr. Khin Mar Soe, University of Computer Studies, Yangon (UCSY), Myanmar

S4-5. Exchangeable Battery Powered System of Japan: Possible to meet future power needs for light EVs in Bangladesh?

Syed Zahurul Islam, Asmarashid Ponniran

Universiti Tun Hussein Onn Malaysia, Malyasia

S4-6. GNSS-AWARE ASEAN: GNSS Anomaly Awareness And Resilience Engine for ASEAN

Chee Kiat Seow[1], Noriel Tiglao[4], Lin Yola[5], Sye Loong Keoh[1], Hua Seng Tan[2], Dinesh Manandhar[5], Qi Cao[6]

1. University of Glasgow Singapore, 2. Singapore Land Agency (SLA),

3. National University of Singapore, Singapore

4. University of the Philippines, the Philippines

5. Universitas Indonesia, Indonesia

6. The University of Tokyo, Japan

S4-7. Mitigating Cyber Threat: A Class-Imbalance-Aware Quantum Machine Learning Framework for IoT and IoV Networks

Sharifah Hafizah Syed Ariffin[1], Abbas Sahwan[1], Nurul Ashikin Daud[1], Abdalla Desmad[2]

1. Universiti Teknologi Malaysia, Malaysia

2. Bahrain Polytechnic, Bahrain

S4-8. Threat Intelligence-Driven EDR for SOC

Aung Htein Maw, Zay Yar Htet, Hnin Thiri Zaw

University of Information Technology, Myanmar

15: 50 **Break**

16:10 **Session 5: ICT for Health and Welfare 2**

Chair: Mr. Carlito Pinto, Universidade Nacional Timor Lorosae, Timor-Leste

S5-10. Real-Time Edge AI Analysis of Photoplethysmography Signals for Diabetic Vascular Health Assessment

Widad Binti Ismail[1], Yudiansyah Yudiansyah[3], Nazirah Othman[1], Wasana Boonsong[5], Chan Yean Yean[1], Ng Sha Shiong[1], Wardah Binti Yusuf[1], Azidah Abdul Kadir[1], Nani Draman[1], Rohaida Che Mohd Abdullah[1], Zainab Mat Yudin@Badrin[1], Suphawita Pliannuom[6] Kamarul Hafiz Bin Kamaludin[2], Zahratul Aini[4]

1. Universiti Sains Malaysia, 2. Malaysia Ministry of Health, Malaysia
3. Telkom University, 4. Universitas Syiah Kuala, Banda Aceh, Indonesia
5. King Mongkut's Institute of Technology Ladkrabang, 6. Chiang Mai University, Thailand

S5-11. An AI-Enhanced Framework for Robust Remote Photoplethysmography (rPPG) Using Multimodal Signal Processing and Fine-Tuned Gemma-Medical

Phonepadith Phoummavong[1], Vimontha Khieovongphachanh[1], Senglathsamy Chanthamenavong[1], Gan Srirutchataboon[2], Lunchakorn Wuttisittikulkij[4], Manolom Chanthavong[1], FUKAI Hidekazu[3]

1. National University of Laos, Laos
2. Tokyo Institute of Science, 3. Gifu University, Japan
4. Chulalongkorn University, Thailand

16:10 **Session 6: ICT for Secure and Smart Community 2**

Chair: Dr. YONG Keh Kok, MIMOS Berhad (Malaysian Institute of Microelectronic Systems), Malaysia

S6-9. A Regional GTFS Research Agenda for ASEAN

Sye Loong Keoh[1], Yung-Wey Chong[3], Chee Kiat Seow[1], Qi Cao[2], Achmad Basuki[5], Sharul Kamal Abdul Rahim[4]

1. University of Glasgow Singapore, 2. National University of Singapore, Singapore, 3. Universiti Sains Malaysia, 4. Universiti Teknologi Malaysia, Malaysia, 5. Universitas Brawijaya, Indonesia

S6-10. Cross-Country Threat Detection Model using Machine-Learning in Software-Defined Networking

Saw Chin Tan, Abdullah Kamaruddin
Multimedia University, Malaysia

16:50 **Session 7: ICT for Advanced Technologies and Applications**
Chair: Mr. Carlito Pinto, Universidade Nacional Timor Lorosae, Timor-Leste

S7-12. Data-Driven Monitoring, Forecasting, Fault Detection and Performance Optimisation of Solar PV Systems in Tropical ASEAN Environments
Rafidah Petra[1]
Speaker: Haji Mohammad Ishlah Haji Abdul Rahman[1]
Mohamad Saiful Haji Omar[1], Sheik Mohammed Sulthan[1], Nor Asiah Muhamad[1], Hajah Nur'azmina Haji Lingas[1], William Voon[2] 、Muhammad Effi Arpan[3], Sisabay Chanthasombath[4]
1. Universiti Teknologi Brunei, 2. Berakas Power Company, Brunei,
3. Ministry or Energy Transition and Water Transformation (PETRA),
4. Malaysia Ministry of Industry and Commerce, Laos

S7-13. Dalan-AI: A Three-Layer Framework for AI-Powered, Low-Cost Road Condition Assessment
Frederico Soares Cabral[1], Vosco Pereira[1], Ruda Barbosa[1], Sara Maria Rinella Putri Tilman[1], Hidekazu Fukai[2]
1. National University of Timor-Leste, Timor-Leste, 2. Gifu University, Japan

17:30 **Closing Address**
Dr. MORIAI Shiho
Vice President
National Institute of Information and Communications Technology, Japan
ASEAN IVO Steering Committee Chair

17: 35 **Finish**

16:50 **Session 8: ICT for Inclusive Digital Services and Governance**
Chair: Dr. Choong Khong Neng, MIMOS Berhad (Malaysian Institute of Microelectronic Systems), Malaysia

S8-11. Direct Cross-Language Search for ASEAN: Connecting ASEAN Regional Languages with Standard Burmese and Ethnic Languages
Hsu Myat Mo
University of Computer Studies, Yangon (UCSY), Myanmar

Poster Session

Time: 9:30 – 17:10
Venue: 2F Foyer

1. **Trustworthy AI for Bone Scan Interpretation**
   Ema Rachmawati
   Telkom University, Indonesia

2. **Evidence-Aware Human-in-the-Loop Governance for Generative AI-Assisted Pegon Revitalization**
   Faruk Ulum
   Research and Community Service Institute (LPPM), Universitas Teknokrat Indonesia, Indonesia

3. **ICT for Health and Welfare: Early Warning System for Dengue Risk Prediction in ASEAN Communities using AI and IoT**
   Phyo Thu Zar Tun
   Department of Computer Engineering and Information Technology, Mandalay Technological University, Myanmar

4. **SAVING ISLAND SHORELINES, DIGITALLY.**
   Muhammad Zahir Bin Ramli
   Kulliyyah of Science, International Islamic University Malaysia (IIUM), Malaysia

5. **Adaptive RIS-UAV Communications for Resilient 6G Connectivity in ASEAN**
   Fauziahanim Che Seman, Norshidan Katiran, Mohammad Zulalif Rahim, Zuhairiah Zainal Abidin, Huda A Majid
   Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia

6. **AIoT-Enabled Predictive Goat Behaviour Intelligence for Precision Reproductive Management and Sustainable Livestock Production in ASEAN**
   Maisara Binti Othman, Abdul Kadir Bin Mahamad, Fauziahanim Binti Che Seman, Herdawatie Binti Abdul Kadir, Mohd Razali Bin Md Tomari, Sharifah Binti Saon, Muhammad Shazmin Bin Sariman
   Department of Electronic Engineering, Faculty of Electrical and Electronic Engineering, Universiti Tun Hussein Onn Malaysia, Parit Raja, Johor, Malaysia

7. **Inclusive AI-Based Stealth Assessment for Early Identification of Spatial–Numerical Difficulties in Children across ASEAN**
   Bambang Pudjoatmodjo, Rikman Aherliwan Rudavan, Fery Prasetyanto
   Telkom University, Indonesia

8. **Cross-Sign ASEAN: AI-Assisted Mutual Understanding for Inclusive Digital Services**
   Chantri Polprasert
   Asian Institute of Technology {AIT), Thailand

9. **A Multi-Source ICT Framework for Rapid Earthquake Impact Assessment in Myanmar**
   Ei Ei Khin
   Remote Sensing & GIS Research Center, Yangon Technological University, Myanmar