

ICT Virtual Organization of ASEAN Institutes and NICT

ASEAN IVO Forum 2017

Program

Date: Nov. 23 (Thu), 2017

Venue: Mutiara Ballroom, Radisson Hotel Brunei Darussalam,
Bandar Seri Begawan, Brunei Darussalam

08:00 Registration

08:45 Recitation of Surah Al-Fatihah and Doa Selamat

08:50 Welcoming Remarks

Professor Zuruzi bin Abu Samah
Assistant Vice-Chancellor research
Universiti Teknologi Brunei, Brunei Darussalam

Professor Dr. Hideyuki Tokuda
President,
NICT, Japan

H.E. Mr. Motohiko Kato
Ambassador Extraordinary and Plenipotentiary of Japan to Brunei Darussalam

Honorary Address and official opening by the Guest of Honor
Mr. Haji Azhar bin Haji Ahmad
Permanent Secretary
Ministry of Communications, Brunei Darussalam

09:20 Invited Talk 1
R&D Introduction of NICT
Dr. Fumihiko Tomita
Vice-President
NICT, Japan

09:50 Invited Talk 2
Introduction to NEC Solution Innovators, and Our Focusing Business Domain
Mr. Hiroyuki Shigematsu
Deputy General Manager
NES, NEC Group, Japan

10:20 Group photo

10:30 Break

10:50 Session 1: Smart-Agriculture/Aquaculture/Farming
Chair: Dr. Sarun Sumriddetchkajorn, NECTEC, Thailand

Smart Agriculture Management System for Local Perennial Herbs in Vertical Farming
Marsyita Hanafi, Syamsiah Mashohor, Norhashila Hashim, Siti Mariam Syafie,
Rosniza Kassim, Norhana Arsad, Toyoki Kozai, Jennifer Dela Cruz
UPM, MARDI, UKM, Malaysia, Chiba U, Japan, Mapua U, Philippines

Precision Agriculture Technologies for Sugarcane Farming in Thailand
Supavadee Aramvith and Watchara Ruengsang
Chulalongkorn U, Thailand

Using of GNSS and Field Data to Evaluate Working Performance of Mechanical
Sugarcane Harvesters
Apidul Kaewkabthong and Vasu Udompetaikul
KMITL, Thailand

Checking plant health through Normalized Difference Vegetation Index (NDVI)
using mobile phone
Puteri Suhaiza Sulaiman
UPM, Malaysia

Smart Agriculture: Fruit Ripeness Monitoring and Determination using Electronic
Nose
Febus Reidj G. Cruz, Meo Vincent C. Caya, Ramon G. Garcia
Mapua U, Philippines

Wireless network customization technologies to enhance the future wireless-grid
applications
Fumihide Kojima
NICT, Japan

12:20 Lunch

13:00 Session 2: Smart-Agriculture/Aquaculture/Farming
Chair: Prof. Alejandro Ballado, MU, Philippines

A Smart-Farming model for Lao Agriculture
Boualinh SOYSOUVANH, Somphone KANTHAVONG, Senglathamy
CHANTHAMENAVONG, Phonepadith PHOUMMAVONG, Xaythavy LOUANGVILAY,
Kataiy XAIYASOMBATH, Chaodit ASWAKUL
NUOL, Laos, Chulalongkorn U, Thailand

Airborne IoT Network (AIN) for Smart Agriculture and Environment Protection
Nordin Ramli¹, Kentaro Ishizu², Rosdiadee Nordin³, Nestor Michael C. Tiglao⁴,
Brian Yulianto⁵, Fumihide Kojima², and Hafizal Mohamad¹
¹ MIMOS Berhad, Malaysia, ² NICT, Japan, ³ UKM, Malaysia, ⁴ U of the Philippines,
Philippines, ⁵ ITB, Indonesia

A mesh-topological, low-power wireless network platform for a smart watering
system
Jessada Karnjana¹ and Yasunori Owada²
¹ NECTEC, Thailand, ² NICT, Japan

Wireless Water Cloud Monitoring System for Smart Aquafarming
Sharifah Hafizah Syed Ariffn
UTM, Malaysia

From Data Analysis to Internet of Things - A Top-down Perspective for Agriculture
And Automatic Hydroponic System -
Thu NGO-QUYNH
HUST, Vietnam

14:15 Session 3: Smart Tourism
Chair: Mr. Boon Choong Foo, MIMOS, Malaysia

Smart Campus Map: (Sokpaluang Campus, National University of Laos)
Khamphao SISAAT
NUOL, Laos

Mobile based Text Image Translation System for Smart Tourism
Saw Zay Maung Maung
UCSY, Myanmar

Smart Trip Planning for Myanmar Region
Myat Thiri Khine and Myint Myint Sein
UCSY, Myanmar

Museums Pool: the museum guide management system for South-East Asia under
platform guide pool system
La-or Kovavisaruch
NECTEC, Thailand

SMART TOURISM
Somnuk Phon-Amnuaisuk, Min-Son Dao
UTB, Brunei

15:30 Break

**15:45 Session 4: Information Reliability for Smart Society and
Smart Environment Protection**
Chair: Dr. Ashwin Sasongko SASTROSUBROTO, Tel-U, Indonesia

Securing Cyberspace by Ensuring Authenticity through Adaptive Multi Factor
Authentication
Rifki Sadikin, Esa Prakasa, Arinta Primandini, Hermawan Nugroho, Ibrahima Faye
LIPI, Indonesia, Swinburne U of Tech. Sarawak, Malaysia, UTP, Malaysia

Sensing through walls: An emerging technology for ASEAN security community
Van Ha Tang, Lam Thu Bui, Jonathan Hoyin Chan, Akira Namatame
Le Quy Don Tech U, Vietnam, King Mongkut's U of Tech Thonburi, Thailand,
National Defense Academy, Japan

Unmanned Aerial Monitoring and Information Management of Aging Structures
Jocelyn Flores Villaverde, Mark Christian E. Manuel, Alejandro H. Ballado Jr., Glenn
V. Magwili, Noel B. Linsangan
Mapua U, Philippines

Mitigating the Effects of Disasters by Using UAV
K-zin Phyo and Myint Myint Sein
UCSY, Myanmar

R&D status on micro cell operator and spectrum sharing toward 5G and beyond
Kentaro ISHIZU
NICT, Japan

17:00 Break

17:15 Session 5: Smart Environment Protection
Chair: Dr. Myint Myint Sein, UCSY, Myanmar

Toward a high resolution temperature distribution map using crowdsourcing
smartphone battery temperature
Chau Hai NGUYEN
VNU-UET, Vietnam

Networked ASEAN Coastal Communities
Aduwati Sali¹, Borhanuddin Mohd Ali¹, Mohd. Fadlee A. Rasid¹, Nurul Adilah
Abdul Latiff¹, Wipawee Hattagam², Bao Bao Vo Nguyen Quoc³, Hafizal
Mohamad⁴, Nordin Ramli⁴
¹ UPM, Malaysia, ² SUT, Thailand, ³ PTIT Vietnam, ⁴ MIMOS, Malaysia

Disaster Management of Peatland Forest Fire in Brunei
Wida Susanty Haji Suhaili, Somnuk Phon-Amnuaisuk, S.H. Newaz, Thien-Wan Au,
Minh-Son Dao, Ali Selamat
UTB, Brunei

IoT-Based Automatic Rain Gauge Radar for Climate Change Adaptation
Ahmad Budi Setiawan, Danny Ismarianto Ruhiyat, Aries Syamsuddin, Rifqi Fauzan
Islam, Onny Rafizan, Ashwin Sasongko Sastrosubroto
MCIT, Indonesia

The Platform for Humanitarian Assist and Disaster Relief Management using
Remote Sensing and Social Media Data
Minh-Son Dao, Koji Zettsu, Siripen Pongchaichet
UTB, Brunei, NICT, Japan, Mahidol U, Thailand

18:30 Closing
Dr. Fumihiko TOMITA
NICT, Vice President

19:00 Reception for all speakers

Poster Session:

Automated car parking Indicator System in Myanmar

Myat Thanda Khin

UCSY, Myanmar

Socio-economic Development Indices and Their Reflection on Internet Performance
in the ASEAN Countries

Adib Habbal

UUM, Malaysia

Home Appliances Control in Geo-Fence area of Myanmar Region

Hlaing Thida Oo and Dr Kin Than Mya

UCSY, Myanmar

Device Fingerprinting - Device Fingerprinting, accuracy using Convolution Nets and
applications in security -

Sandhya Aneja

UBD, Brunei

Collaborative Platform for Epidemic Disease Control and Smart Tourism

Duc Nghia Pham

MIMOS, Malaysia

Visual IoT and sensor IoT for disaster mitigation using industry-oriented Raspberry
Pi

Ken T. Murata

NICT, Japan

Resilient Network Platform and Rural IoT Platform

Nobuyuki Asai

NICT, Japan