ASEAN IVO Forum

The ASEAN IVO Forum is an annual event providing an opportunity for all ASEAN IVO members to exchange ideas, discuss R&D topics and coordinate projects. Each year, the ideas exchanged lead to new project teams forming in time for the following Call for Proposals. The Forum is hosted in a different ASEAN country each year.

Past Forums:

2019   November 20-21, Manila, The Philippines

2018   November 27-28, Jakarta, Indonesia

2017   November 23-24, Bandar Seri Begawan, Brunei Darussalam

2016   November 24, Hanoi, Vietnam

2015   November 26, Kuala Lumpur, Malaysia

Pictures from ASEAN IVO
Forum 2019 in Manila

Steering Committee

A Steering Committee formed from the ASEAN IVO member institutes and NICT, with one or two representatives for each ASEAN country. The Steering Committee is responsible for overseeing ASEAN IVO activities. Meetings are typically held twice a year.

The Steering Committee : Selects proposals for collaborative projects; Reviews ongoing projects and provides feedback; Promotes ASEAN IVO with relevant ministries and organizations and identifies sources of support for ASEAN IVO activities; Decides overall ASEAN IVO policy and administrative matters.

Picture of the ASEAN IVO
SC Meeting 2019 in Manila

For More Information

Homepage:
http://www.nict.go.jp/en/asean_ivo/

ASEAN IVO Secretariat:
Email: asean_ivo_sc_nict@ml.nict.go.jp

ICT
Virtual Organization
of ASEAN Institutes and NICT

2020.04

ASEAN
IVO

About ASEAN IVO

"ICT Virtual Organization of ASEAN Institutes and NICT" (ASEAN IVO) is a global alliance of institutes and universities in the ASEAN region and Japan focused on ICT research and development.

The mission of ASEAN IVO is to seek and identify strategic ICT research areas in the ASEAN region and support collaborative projects in them, promoting international alliance amongst universities and research institutes in the ASEAN region and Japan.

Collaborative projects aim to address common challenges such as communication limitations in rural areas and disaster situations, language barriers, network security, energy, infrastructure, agriculture etc.

The idea for ASEAN IVO was conceived at the "International Roundtable on ICT R&D Collaboration in the ASEAN Region" held in 2013 by NICT. A proposal to establish the Organization was brought by NICT and approved at the second Round Table in 2015. ASEAN IVO began in 2015 with 23 members from 8 ASEAN countries plus Japan. Now membership includes all ASEAN countries, with 60 members as of April 2020 and rising.

Membership

ASEAN IVO members can apply to make presentations on their research activities at the ASEAN IVO Forum, with the possibility of receiving support for travel expenses. Additionally, member universities and public research institutes from ASEAN countries are eligible to receive financial support for collaborative projects.

Membership is open to universities, institutes and companies located in the ASEAN region. Depending on the type of organization, the following conditions may apply:

1. Organizations applying for membership must be involved in research and development in the field of ICT.
2. Organizations from non-ICT sectors can be accepted as members, if their aim in joining is ICT development for their field.
3. Private companies are welcome to apply for membership if the company applying provides matching funds for ASEAN IVO joint projects. No financial support will be provided to the company.
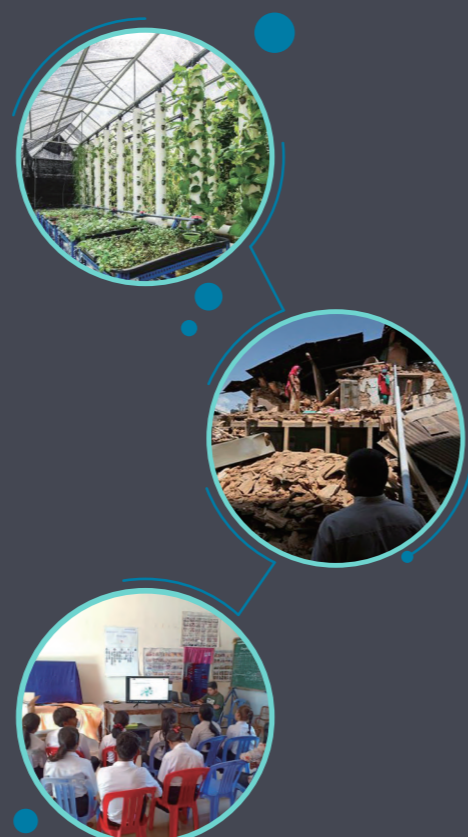
Research Collaboration

New collaborative projects are selected for support through an annual call for proposals. All projects are required to include participant institutions from at least two different ASEAN countries. Proposals from all technical fields are welcome and are evaluated on the potential benefit of output.

ASEAN IVO supports research collaboration by:

1. Developing common technologies in broad areas based on common considerations
2. Forming multinational collaborative projects for research, field trials, etc. to address common regional needs
3. Promoting collaborative research through researcher exchange
4. Sharing knowledge through international joint workshops and other academic events

A call is periodically made to ASEAN IVO members for proposals related to the above, financial support is offered by NICT.
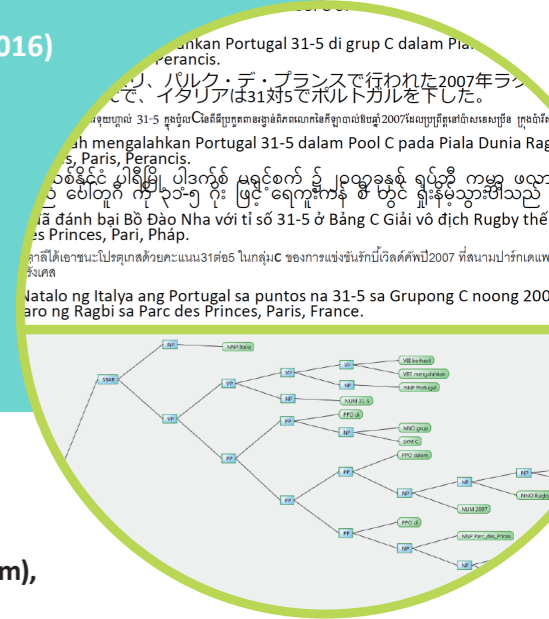
Some ASEAN IVO Projects

Open Collaboration for Developing and Using Asian Language Treebank (2016) (Complete)

Leader: NICT (Japan)

Members: BPPT (Indonesia), I2R (Singapore), IOIT (Vietnam), UET (Vietnam), NIPTICT (Cambodia), UCSY (Myanmar), NECTEC (Thailand), PUP (Philippines)

Award-winning publication:
Chenchen Ding, Vichet Chea, Masao Utiyama, Eiichiro Sumita, Sethserey Sam, Sopheap Seng: *Statistical Khmer Name Romanization*. PACLING, 2017 Best Paper Award.

A Hybrid Security Framework for IoT Networks (2017)

Leader: PTIT (Vietnam)

Members: NECTEC (Thailand), MIMOS (Malaysia), HUST (Vietnam), NUCE (Vietnam), NICT (Japan), NES (Japan)

Award-winning publications:
Dang Hai Hoang, Ha Duong Nguyen: *A PCA-based Method for IoT Network Traffic Anomaly Detection*. Proc. of IEEE ICACT, Korea, Feb. 2018. Best paper Award.

Chalee Vorakulpipat, Ekkachan Rattanalerdnusorn, Phithak Thaenkaew, Hoang Dang Hai: *Recent Challenges, Trends and Concerns related to IoT security: An evolutionary study*. Proc. of IEEE ICACT, Korea, Feb. 2018. Best paper Award.

NAPC: Networked ASEAN Peat Swamp Forest Communities (2018)

Leader: UPM (Malaysia)

Members: NICT (Japan), MIMOS (Malaysia), Bogor Agricultural University (Indonesia), UTB (Brunei), BPPT (Indonesia)

This project is to enable connectivity for IoT-based monitoring system in peat swamp forest areas in three ASEAN countries. This way the forest management community and researchers can further understand peat swamp forest ecosystem by analyzing the collected micro climate data. The system will also serve as a peat swamp forest fire monitoring system for immediate human and automated interventions via FDRS.

GNSS and Ionospheric Data Products for Disaster Prevention and Aviation in Magnetic Low- Latitude Regions (2019)

Leader: KMITL (Thailand)

Members: CMU (Thailand), NUOL (Laos), YTU (Myanmar), NICT (Japan)

This project aims to expand ionospheric observational infrastructure in Thailand, Myanmar and Laos, and perform data analysis from multi-sensor sources including GNSS, ionosonde and VHF radar stations located at the magnetic equator and in low-latitude regions.

The added data sources and existing observational data will be analyzed. Data products such as ROTI maps, Spread F statistics, which are useful as communication alternatives during disasters and for disturbance detection, will be generated for aeronautical navigation purposes. The plasma bubbles, based on the new VHF radar station at the Chumphon campus, will be studied. Finally, all the data products will be updated on the Thai GNSS and Ionosphere Data Center's website.