



Call for Proposals 2020

From core research to real world application, ASEAN IVO focuses on a broad range of topics in the field of ICT. Particularly with regards to providing solutions for specific regional needs or environmental or social problems, great emphasis is placed on not just fundamental research but practical solutions. Projects would ideally have a strong outlook to conduct a demonstration by the final year of the project. Proposals from all technical fields are welcome and they will be evaluated on the potential benefit of the output.

ASEAN IVO -- Call for Proposals 2020 is now open to all members of ASEAN IVO to make new projects in the ICT field starting from April 2020. Please fill in the Proposal Form and submit it to the ASEAN IVO Secretariat.

1. Topics

1) ICT for food

As food is a common need for all people, ensuring food security (i.e. food availability and regional self-sufficiency) is a key concern for every country. The focus of this topic is for ICT applications providing specific solutions to food security issues in the ASEAN region, specifically the development of applications and integrated systems for R&D in all fields addressing food availability, from environment and agriculture through the supply chain to consumption and waste management.

Keywords for Technology Development: IoT Application, Traceability, Sensor Network, Wireless Communication, 4G/5G, Big Data, Cloud Computing.

Keywords for Application Development: Agriculture, Aquaculture, Animal husbandry, Farming, Disease Management, Pandemic Influenza, Waste and Pollution Management, Supply Chain.

2) ICT for Environment Protection and Disaster Prevention

As the population grows and becomes more urbanized, there has been a massive increase in material needs and environmental impact as well as demand for digital infrastructure to support people's lifestyles and communication, so that environment monitoring and protection has become an important issue to human society. Today, natural disasters are occurring more frequently and with increasing intensity. Also, as well as for disaster prevention and response, environment monitoring is key for stable infrastructure. This topic focuses not only on technologies, but also applications and integrated systems for R&D.

Keywords for Technology Development: IoT Application, Sensor Network, Wireless Communication, 4G/5G, Big Data, Cloud computing, Satellite communication, Lidar sensors, Doppler radars, UAV and Airborne platforms, Spatial technologies, Landscape, Infrastructure resilience.

Keywords for Application Development: Landslides, Coastal resource mapping, Disaster mitigation, Assessment and conservation, Rainforest protection, Space environment monitoring, Environment protection, Climate change.

3) ICT for a Secure and Smart Community

With the internationalization and regionalization of ASEAN, we are facing many difficulties, such as cultural differences and social adaptation. Additionally, with rapid urbanization, cities face a variety of risks, concerns, and problems. The unprecedented rate of urban growth creates an urgency in finding smarter ways to manage the accompanying challenges. This topic is a challenging one which does not only focus on technologies, but also applications and integrated systems, including development of useable applications in a real-life context.

Keywords for Technology Development: Artificial intelligence, Multilingual speech and language processing, Speech enhancement, Blockchain, Digital identification, Data validation, Accessibility, Cryptographic verification, Transparency, e-Voting, e-Commerce, Information system reliability, Secure IoT/SDN, Cryptography

Keywords for Application Development: Real-life application, Environment adaptation, Smart city, Smart village, Administrative cost, Digital economy, Energy efficiency, Sustainability, Travel booking and logistics, Tourist travel assistance, Safety and surveillance, Medical tourism, Cultural tourism, Travel database and data analytics, Monitoring/detection systems, Maritime and river security, Monitoring and tracking of sea and inland vessels.

4) ICT related Technologies and Applications

Proposals in any ICT-related topic are welcome if sufficient relevance to the above themes can be demonstrated.

2. Important dates

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|--------------------------------------|-----------------|
| 1) Deadline for proposal submission: | January 6, 2020 |
| 2) Evaluation period: | March 2020 |
| 3) Notice of results: | April 2020 |



3. Application

- 1) The institution of the applicant should be an ASEAN IVO member, and the applicant should be the project leader. Non-members can submit proposals for new projects as project leaders, but they must apply for membership and obtain approval before the deadline for proposal submission.
- 2) The members of the proposed project must be at a minimum 2 institutions total, and from at least 2 different countries in the ASEAN region.
 - Multiple institutions from one country as well as NICT and other Japanese institutions are also welcome to be members of a project team but will not count towards this minimum requirement.
- 3) Institutions that are not members of ASEAN IVO can also be members of the project team.
- 4) The leaders of ongoing projects cannot make new applications.

4. Budget

Max. 40,000 US\$/project/year

- 1) The budget allocation is subject to change based on NICT's fiscal year budget situation.
- 2) Because of NICT's budget situation, the annual budget you planned for this year should be spent within this fiscal year, from April 2020 to March 2021, without any consideration for the starting date.

5. Projects

Around 5 projects will be selected in total.

The duration of the project can be from 6 to 24 months. If the duration is more than 12 months, the project will be reviewed once by the Steering Committee.

6. Review and selection

1. The ASEAN IVO Steering Committee will evaluate each submission from the following viewpoints. In some cases, modifications may be recommended.
 - Scientific and/or technological excellence (relevant to the topics addressed by the call)
 - Soundness of concept, and quality of objectives
 - Progress beyond the state-of-the-art
 - Quality and effectiveness of the S/T methodology and associated work plan
 - Quality and efficiency of the implementation and the management
 - Appropriateness of the management structure and procedures
 - Quality and relevant experience of the individual participants
 - Quality of the consortium as a whole (including complementarity, balance)



ICT Virtual Organization of ASEAN Institutes and NICT (ASEAN IVO)

- Appropriateness of the allocation and justification of the resources to be committed (budget, staff, equipment...)
 - Potential impact through the development, dissemination and use of the project results
 - Contribution, at the ASEAN and/or international level, to the expected impacts listed in the work program under the relevant topic/activity.
 - Relevance of potential impact to national or ASEAN official guidelines, such as the ASEAN ICT Master Plan.
 - Appropriateness of measures for the dissemination and/or exploitation of project results, and management of intellectual property.
 - Potential to generate sustainable community practices, business models or industry-relevant products with future development.
 - Benefits to the development of collaboration in the applicant country and the ASEAN region
 - Balance, equality and complementarity between organizations and between countries within the project team
 - Contribution to the technical proficiency of research in developing ASEAN countries
 - realization of new collaborations as well as reinforcing continuing partnerships
2. The following points will be evaluated highly, and additional points will be added.
 - 1) There is more than one expert in your project team who is the expert in the application filed.
 - 2) There is more than one support fund, e.g. a matching fund you are getting from your institution, or government, or private company, etc.
 - 3) There are descriptions of advantages of your proposal if your proposal is similar to the ongoing or finished projects.
 3. Selected proposals will be published on the ASEAN IVO website.
 4. Members of the selected projects, especially project leaders, are requested to cooperate with NICT for administrative procedures.

7. Other financial support

In addition to the support of ASEAN IVO, other financial support for your project is welcome. For example, this can be a matching fund from the institution of the applicant or a public fund or another source.

8. Intellectual Property

Among the project products achieved by the collaborative research and development, the intellectual property of any product that is independently created by a researcher or researchers of one institution shall be solely reserved by that institution.

Among the project products achieved by the collaborative research and development, the intellectual property of any product that is jointly created by researchers of more than one institution shall be jointly held by those institutions.



9. Open Source and Data sharing

ASEAN IVO envisions an acceleration of innovation that can be achieved by open access to technologies and information. For this purpose, it is highly recommended that research data is made available between ASEAN IVO members, if it is appropriate and practicable, and researchers are encouraged to consider open source development or make use of shared platforms.

10. Project Review and Reports

There is a project review in the second year, if the duration of the project is more than 12 months (1 year).

The following reports will be required:

- Progress reports once a year.
- A final report at the end of the project.

Information about the status of your project, based on these progress reports, will be published on the ASEAN IVO website. Additionally, you are encouraged to publish a website for your project where possible.

11. Notes about Submission

1. Institutions in non-ASEAN regions can be a member of your project, but the budget provided by NICT can only support the institutions of project members which are located in the ASEAN region.
2. Personnel expenses should not be included in your proposal, because the budget provided by NICT cannot support personnel expenses for your project.

12. Submission

1. Please carefully read the guidelines for submission; the check list should be the first page before your proposal and you should fill out all items of the check list.
2. Procedure: Submit applications by filling in all necessary items on the proposal form and e-mailing as an attachment in both MS Word and PDF formats.

3. Submit to: ASEAN IVO Secretariat

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