# ICT Virtual Organization of ASEAN Institutes and NICT ASEAN IVO Forum 2016 Call for Presentations

## Submission and Registration Form

Please enter the relevant information in the fields below, giving an appropriate explanation when necessary. You may add supplemental pages and supporting data. If necessary, you may be asked to provide additional documents.

**I. Title**—Title of presentation:

## Wireless Sensor Network Test-Bed for Environmental Monitoring

**II. Author(s)**—Full name (First name family name): (If you are already planning a project, please include the names of all team members)

Dr. Aung Htain Maw Dr. Khin Than Mya

### **III. Organization(s)**:

(If you are already planning a project, please include the institutions of all team members) Cisco Network Lab., University of Computer Studies, Yangon Embedded System Lab., University of Computer Studies, Yangon

## **IV. Topic selection:**

(Select one from the topics listed in "Call for Presentations") Smart Society: ICT applications for community and environment IOT

#### **IV. Abstract:**

(Describe the purpose, background, objectives, content, plans for connected projects, expected results/outcomes, etc.)

In the state of the art, Internet of Things (IoT) tends to be touted as a future technology. Based on that concept and the constant development of Wireless Sensor Networks (WSNs), this case study explains and implements wireless sensor network test-bed for environmental monitoring. This test-bed is a reactive network for environmental monitoring and evaluates the effectiveness of the network for data gathering using both laboratory and field tests. This sensor network test-bed monitors the environment: temperature and humidity in real-time. The test-bed consists of a personal computer (PC) where an end-user can communicate with the sensor nodes through a base station (BS), which is implemented by combining WSN kit. The implementation integrates the networking capabilities of a WSN, a wireless local area network and a smart phone device, in order to achieve a monitoring service and tracking mobility of objects for the purposes of future Internet of Things services. The scenario is to create a service, or a way that one will be able to "understand" and monitor the environment.

Fig: Overview of Test-Bed



### V. Speaker information:

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VI. Support for speaker—circle or underline any that you wish to request:

- Round trip fare at discount economy class
- <u>Accommodation</u>