

**FACULTY OF ENGINEERING  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**IoT WIZnet Workshop**

**Date: 18.12.2017 and 19.12.2017**

**Time: 9:30 AM to 4:00 PM**

**Venue: CDI Lab, 5<sup>th</sup> Block**

**Speaker/s:**

**Name: Lawrence Lee and Mason Lee**

**Organization and Place: WIZnet, Korea**

**Target Audience (Students): 4<sup>th</sup> and 6<sup>th</sup> Semester Students from CSE/IT**

**Faculty Coordinator: Mr. BIJEESH T V**

**Total Students Attended: 58**

**OBJECTIVE: To introduce advanced programming with WIZnet Arduino kits**

**Overview:** In collaboration with CDI a one-day workshop was conducted for the students of Faculty of Engineering on Advanced IoT programming by Wiznet engineers. The workshop was repeated for two days with two different set of students.

**LEARNING OUTCOME:**

After successful completion of this workshop students will be able to Work with WIZnetKit ,and Arduino IDE connecting it to various concepts on Computer Network and develop IoT projects/products.

**SESSION 1(9:30am-1:00pm):**

The day started with prize distribution of the Design Contest “Curation is Creation”, and a talk on WIZnet Co., Ltd.

Once the workshop began, WIZnet kits were provided to all teams to have hands on experience. Students were taught starting with ARMmbed configuration. Along with this topics such as Overview on network TCP/IP, DHCP&DNS, and Sockets were covered on computer networks

in the workshop. Basic experiments were demonstrated by the resource person(s). Students had hands

on training on TCP Echo Server and TCP Echo Server along with Wireshark (Open source packet analyzer for network troubleshooting). Internet Piano, and Internet Piano along with Wireshark was included in the hands-on training.

### **SESSION 2(2:00pm-4:00pm):**

In the second session students were taught on LoRa Network Structure which consists of LoRa devices, LoRa gateway, a network server and application server. Resource person(s) demonstrated the experiments. Components like WIZLoRa100, and LoRa\_EVB were used for hands on training for LoRa module, and commands were taught for various parameters along with execution of the commands.

Application on LoRa were taught using Arduino which included Unconfirmed Uplink (used for temperature & humidity), Confirmed Uplink, Downlink demos along with hands on training.





