

# Department of Computer Science IGDTUW

## Workshop on Intel IOT organized by Dr.SRN Reddy and Project Staff in association with Intel IOT Projects

CSE department had organized a free one day workshop on Intel IOT in association with Intel IOT Project for B.Tech (4<sup>th</sup> semester) CSE students. Any interested faculty /student from other streams of IGDTUW may were also invited.

**Date:** 19-03-2016

**Venue:** Embedded System Lab, Room No- E-107, CSE Deptt, Electrical Block

**Time:** 9:30 AM- 5:30 PM

The participants for the event included B.Tech(4<sup>th</sup> semester CSE students) and M.Tech (4<sup>th</sup> semester ECE weekend students). At 9:00 a.m the students had to register for the event where they were given pre-workshop feedback form along with the schedule for the day. The pre-workshop feedback form had questions related to their prior knowledge about Intel Galileo Gen 2, sensors and communication modules and what they actually expect from the workshop of the day.

Sr. No.	Participant Name and email id	Participant Signature
1	SWATI KUNALI	[Signature]
2	PAVANI BANERJA	[Signature]
3	PRINSHI ANAND	[Signature]
4	ANUSHA	[Signature]
5	SARANI SAINI	[Signature]
6	MITANSHI KADIS	[Signature]
7	SHWETA BANIK	[Signature]
8	PRITHA SAINI	[Signature]
9	JISHA SULTAN	[Signature]
10	DIYAN SHARMA	[Signature]
11	ANUSHA	[Signature]
12	AKSHITA	[Signature]
13	GAHANA NATH	[Signature]
14	ANUSHA KADIS	[Signature]
15	RUCHI	[Signature]
16	ANUSHA	[Signature]
17	ANUSHA	[Signature]
18	ANUSHA	[Signature]
19	ANUSHA	[Signature]
20	ANUSHA	[Signature]

**STUDENT REGISTRATION for INTEL IOT WORKSHOP**

Sr. No.	Participant Name and email id	Participant Signature
11	ANUSHA BANERJA	[Signature]
12	ANUSHA BANERJA	[Signature]
13	ANUSHA BANERJA	[Signature]
14	ANUSHA BANERJA	[Signature]
15	ANUSHA BANERJA	[Signature]
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20	ANUSHA BANERJA	[Signature]

DEPARTMENT OF COMPUTER SCIENCE, IGDTUW  
WORKSHOP ON INTEL IOT  
Organized by Dr. SRN Reddy and Research Staff  
19.03.2016  
Pre-Workshop Questionnaire

Name of student: ARSHEN KALIA CHUGH  
Course: B.Tech weekend  
Email id: arshenchugh@gmail.com

**NOTE**

- This questionnaire was designed to determine what you already know about the workshop theme. We will use you to complete the questionnaire again at the end of the workshop so that we can assess what you have learned and how the trainers have done at covering the main points.
- This is not a "test" and you will not be "graded" on your performance.
- The questionnaire has questions about a wide variety of topics that will be covered at the workshop.
- Please select your response to the items.

Sr.No	Questions	Response	Yes	No
1	Do you know term "Internet of Things"?	Yes	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Have you worked on Intel Galileo Gen 2 or any other platform before this workshop?	Specify the platform	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Have you used Arduino IDE or any other IDE before this workshop?	Specify the IDE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	Have you worked with any sensor before this workshop?	Specify the sensors	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Have you interfaced Bluetooth with any hardware before this workshop?	Specify the hardware	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	Would you like to work on Intel Galileo Gen 2 and any other platform?	Specify the platform	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	Would you like to interface communication modules with any hardware platform?	Specify the platform	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	Would you like to interface sensors with any hardware platform?	Specify the sensor	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	Would you like to build your own smart device with any hardware platform?	Specify	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please select your response to the items.





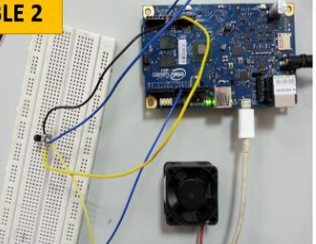



**PRE WORKSHOP FEEDBACK FORM**

The workshop session started with Introduction to Design and Development of Mobile Devices followed by Introduction to Intel Galileo Gen 2 and Arduino programming by Dr. S.R.N Reddy.

After the morning session, the students were told to divide themselves in group of 6-7 students for the lab demonstrations. Each and every project staff had prepared an experiment and presentation using Intel Galileo Gen 2 board, sensors and communication module. The presentation included introduction to the experiment, details of the hardware and platform requirements, interfacing diagram, code, output and an assignment questions for the students. Each group visited every experiment table so as to view, understand and do hands-on practice of the experiment.



**SESSION ON DESIGN and DEVELOPMENT of MOBILE DEVICES and INTRODUCTION TO INTEL GALILEO GEN 2 by Dr.SRN REDDY**

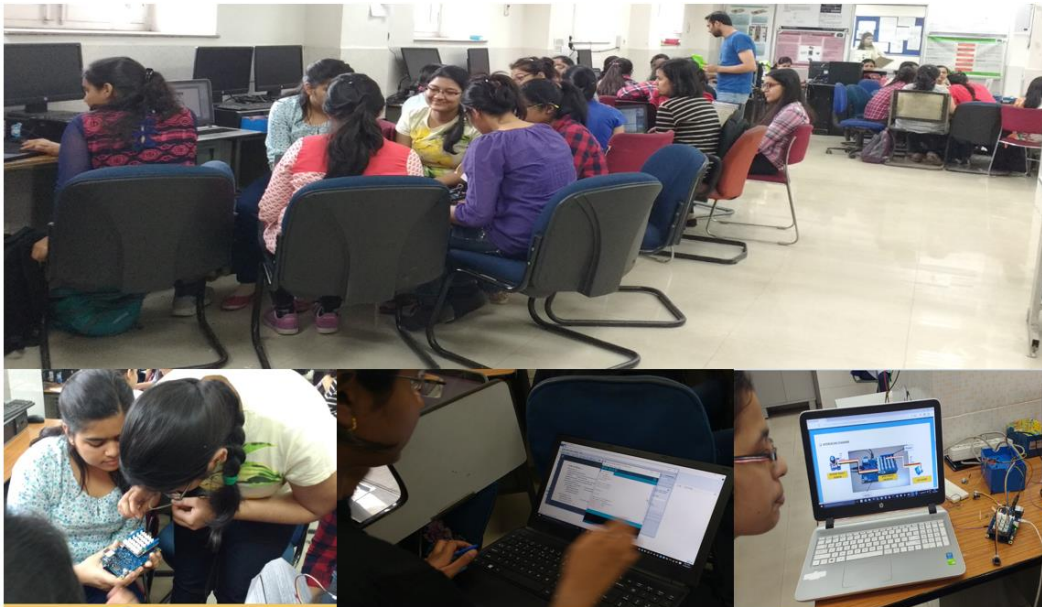
<p align="center">WORKSHOP ON INTEL IOT 19.03.2016</p> <p align="center"><b>Bluetooth controlled LED operation on sound detection</b></p> <hr/> <p align="center">Nidhi Agarwal Department of Computer Science IGDTUW</p>	<p align="center"><b>TABLE 1</b></p> 		<p align="center">WORKSHOP ON INTEL IOT 19.03.2016</p> <p align="center"><b>EXPERIMENT</b> Interfacing angle rotary sensor with Intel Galileo Gen 2 and controlling brightness of LED</p> <hr/> <p align="center">Zeenat Shareef, PhD Scholar Department of Computer Science</p>	<p align="center"><b>TABLE 4</b></p>  <p>Angle of rotation= 0 degree LED off</p> <p>Angle of rotation= 85 degree LED dim</p> <p>Angle of rotation= 300 degree LED max brightness</p> 
<p align="center">WORKSHOP ON INTEL IOT 19.03.2016</p> <p align="center"><b>Interfacing temperature sensor with Intel Galileo Gen 2 and switching the fan when temperature above threshold</b></p> <hr/> <p align="center">Jasleen Kaur Department of Computer Science IGDTUW</p>	<p align="center"><b>TABLE 2</b></p> 			
<p align="center">WORKSHOP ON INTEL IOT 19.03.2016</p> <p align="center"><b>Interfacing light sensor with Intel Galileo Gen 2 and sending data to mobile application via Bluetooth</b></p> <hr/> <p align="center">By Sanal Department of Computer Science IGDTUW</p>	<p align="center"><b>TABLE 3</b></p>  <p>SENDING LIGHT INTENSITY VIA BLUETOOTH</p> <p>LED ON WHEN LIGHT INTENSITY IS LOW</p>  <p>LIGHT INTENSITY SHOWING ON SERIAL PORT</p>	<p align="center">WORKSHOP ON INTEL IOT 19.03.2016</p> <p align="center"><b>Interfacing Ultrasonic sensor with Intel Galileo Gen2 and send data to mobile phone</b></p> <hr/> <p align="center">Rachh Thudral Department of Computer Science IGDTUW</p>	<p align="center"><b>TABLE 5</b></p> 	

**LIST OF EXPERIMENTS**



**RESEARCH STAFF DEMONSTRATING THE EXPERIMENTS**

In the afternoon session, the resource materials (Arduino IDE+Intel Galileo Gen 2 drivers+ experiment presentations) were provided to the students for hands-on session of assignments. Each group was given Intel Galileo Gen 2 and the required sensor/communication module and they themselves had to complete the practical assignment given by each project staff within the stipulated time. After the experiments, they were evaluated for the work they had done.



**PARTICIPANTS PERFORMING THE ASSIGNMENTS**

Due to lack of time, each group was issued the components and they had to think of an idea and prepare a prototype with their idea and present on Monday afternoon. The best project idea would be taken to NCPD 2016.

In the end post workshop feedback form were distributed among the students to get their technical feedback and general feedback about the workshop. Almost all the students found the workshop interactive and wanted more such workshops in the college curriculum to enhance their practical skills.

DEPARTMENT OF COMPUTER SCIENCE, HSTUW  
WORKSHOP ON INTEL IOT  
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19.01.2018  
Post Workshop Feedback

We invite you to provide feedback on the workshop in order to evaluate its usefulness and improve the quality and relevance of the material presented.

Name of student: Ashwin  
Kau Course: B.Tech Email: ashwinreddy@gmail.com

S.No	Questions	Response	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Now I know term "Internet of Things"	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	After This workshop I can work on Intel Galileo Gen 2	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	After this workshop I can use Arduino IDE	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	After this workshop I can work with sensors	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	After this workshop I can work with bluetooth	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Technical Feedback**

S.No	Questions	Response	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Did the workshop meet its objectives	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Was the technical knowledge imparted clearly	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Would you like to have more such workshops	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	The course content was appropriate	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	The logistics was appropriate	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Teaching methodology was good	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Materials provided in the workshop was appropriate	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	The practical demonstrations of the experiments was appropriate	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	The exercises/ questions given at the end were appropriate to the session taught	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	The workshop was interactive	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Any other comments:

I learned a lot about how sensors can be combined to control various devices

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Name of student: Muskan Course: B.Tech CSE Email: muskan0916@gmail.com

S.No	Questions	Response	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Now I know term "Internet of Things"	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	After This workshop I can work on Intel Galileo Gen 2	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	After this workshop I can use Arduino IDE	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	After this workshop I can work with sensors	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	After this workshop I can work with bluetooth	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Technical Feedback**

S.No	Questions	Response	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Did the workshop meet its objectives	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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10	The workshop was interactive	Strongly Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Any other comments:

More workshops like this should be held. It was quite fun and we got to learn quite new stuff which gave us a new of the practical usage

**POST WORKSHOP FEEDBACK**