To

The
Principal,
K.S.I.T
Bangalore

Through,

The H.O.D
Dept. of TE
K.S.I.T
Bangalore

Respected Sir,

Subject: Request for permission to organize a workshop on "Internet of Things(IoT)".

With regard to the above subject, I request your kindself to permit us to organize a workshop on "Internet of Things (IoT)" from 26th **to 28th** November 2021 for 7th semester ECE and TCE students. The resource persons are alumni of Telecommunication department Mr. Shushanth Kulkarni, Project Manager, Bosch Engineering and Business Solutions Pvt. Ltd, Prof. Rajesh Sudi, Asst. Prof., Dept. of ECE,JIT, and acamedician Prof. Ravishankar Holla Asst. Prof.,Dept. of ECE, RVCE.

Kindly permit us to conduct the event and sanction the required budget from IETE student forum. Budget for the same is given below.

SL NO.	ITEM	COST
1.	Memento	700/-
2.	Certificates	600/-
3.	Refreshment	1200/-
4.	Remuneration	5000/-
TOTAL		7500/-

Thanking you,

Yours Sincerely,

Dr. Rekha N.

Dineel
(IETE Coordinator)

Forwarded to the Principal
10/11/2021

Dept. of Telecommunication Engg
K. S. Institute of Technology
Bengaluru - 560 109

K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109
ELECTRONICS AND TELECOMMUNICATION ENGINEERING
2021 – 2022 ODD SEMESTER

Report on **"Internet Of Things(IOT)** workshop"

Date of WorkShop:26/11/2021 to 28/11/2021

Venue: CPL Lab, KSIT College, Bangalore **Organized**

by : K S Institute Of Technology, Bengaluru**Scope and**

Objectives:

Awareness of MQTT clients, MQTT server and its Programming

Day1:(Morning Session)

Speaker-1: Prof.Ravishankar Holla,Assistant Professor, Dept of Electronics and Communication Engineering, RVCE Bengaluru. He completed his Masters of Engineering from UVCE, Bengaluru

Prof. RaviShankar is currently pursuing his PHD in the field of Machine Learning for Agriculture.

He has over all 11 years of teaching experience and 3 years of Industry experience. He has accomplished research projects in collaboration with National Centre for Flexible Electronics-

IIT Kanpur, centre of Excellence- Macro electronics-Technical Education Quality Improvement program 1.2.1-RVCE. He has also done consultancy projects with M/s SAMSUNG, BEMCO FLUIDIK and SLN Hardware and he was actively involved in the project from SPIRE lab IISC,bengaluru

Guests arrived at 9:00 am inaguration started at 9:15 am Chief Guest for inauguration was Prof.Ravishankar Holla Asst. Prof... Dept of ECE,RVCE, Bengaluru. Guests informed about the IOT workshop and started the Session with the Introduction To IOT and its Prototyping and its Architecture. He explained about the Architecture of microcontroller and its Applications.

Day1:(Morning Session)

Day1:(Afternoon Session)

In afternoon session he explained about current trends in the market and making use of this trends to obtain the opportunity. he explained about some Iot examples like smart watches ,smart washing machine and home automation etc.He gave an idea about ESP32,ESP8266,Nodemcu Architecture and how a WifiModule works and how it is easily related to IOT applications.

Day1:(Evening Session)

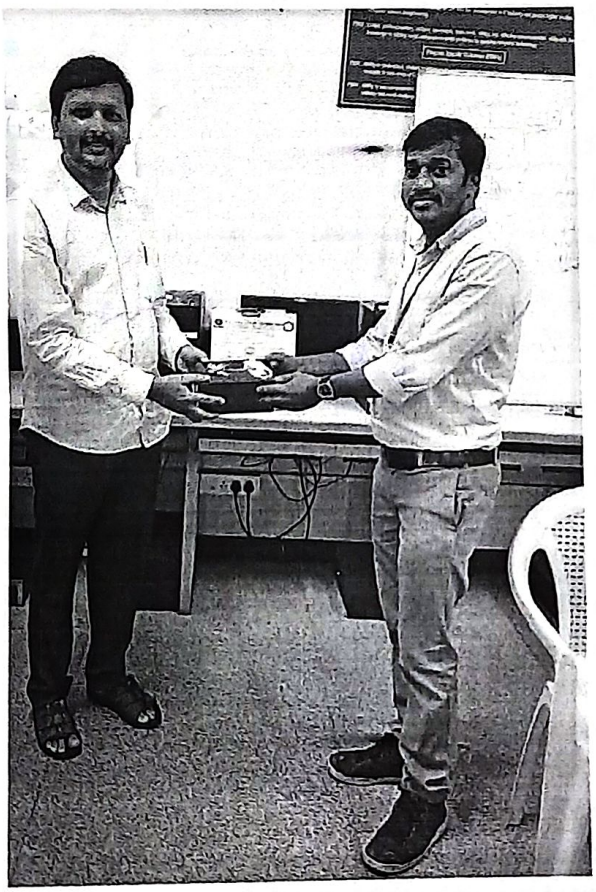
In Evening session he explained about the profit margin of the industries and architecture of Nodemcu and its applications. He also mentioned how to use ardiuno IDE Tool and he taught some basic examples of ardiuno. He explained the procedure to get the installed libraries and code to dump nsidw the nodemcu component and he gave us to execute an blinking of an Led program using ardunio IDE tool and examples of it.

Day 2:(Morning Session)

Speaker-2:Professor Rajesh Sudi,Assistant Professor,Dept of Electronics and communication engineering from Jyothy Institute Of Technology.

He has completed his Bachelors degree in telecommunication Engineering and Master's degree from VTU, Belagavi in RF MEMS and another Master's degree from Jain University, Bengaluru in Embedded System Design. He won the Gold Medal in his M. Tech Degree. He has 9 years of teaching at undergraduate level and 3 years of research experience and 4+ years of industry experience.

In a Day 2 workshop session Prof Rajesh Sudi Explained about the live Hands on session about the NodeMcu pin diagrams, drivers that will support for NodeMcu and its applications. Through NodeMcu how we can do blinking of an led, to Detect the temperature and Humidity Sensor using a NodeMcu .



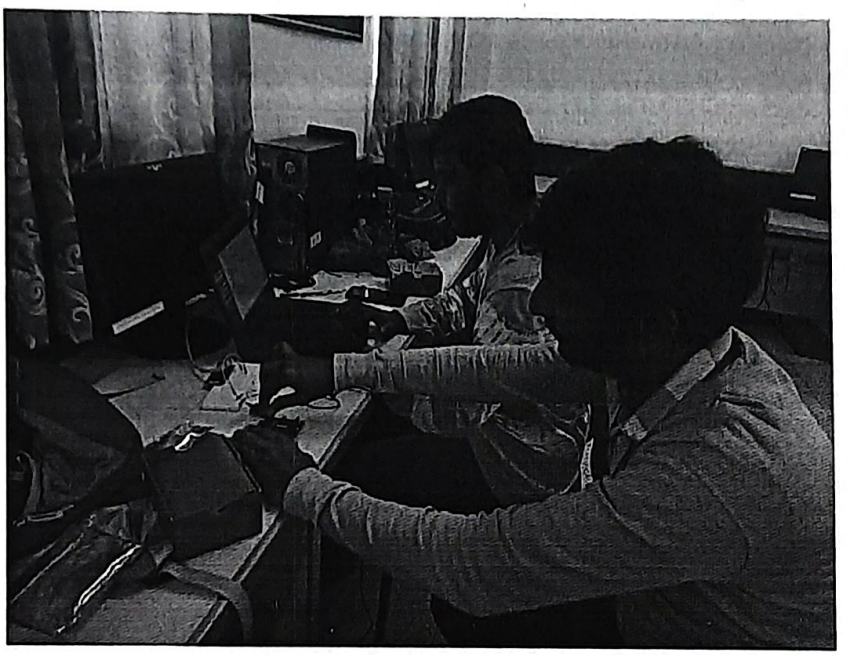
Day 2:(Afternoon Session)

He Explained about creating a webpage on webserver and in the webserver to display the temperature and Humidity sensor values practically. He gave the information regarding the DHT 11 sensors and gave the codes to run on Ardiuno IDE tool to compile and dump into NodeMcu. He explained to download libraries for the Sensors which we were using to generate web servers etc.

Day 2:(Evening Session)

At the end of day 2 session he explained about BLYNK APP which was available PlayStore/Ios to install it and he gave some basic information regarding that App.

He made a Live Hands on Session with BLYNK APP by connecting from Phone to webserver and to control the operations from the mobile itself to turn the led on and off.He explained to connect Nodemcu and DHT11 sensor and Relay in a BreadBoard and told to control the operations from relay and display the led.

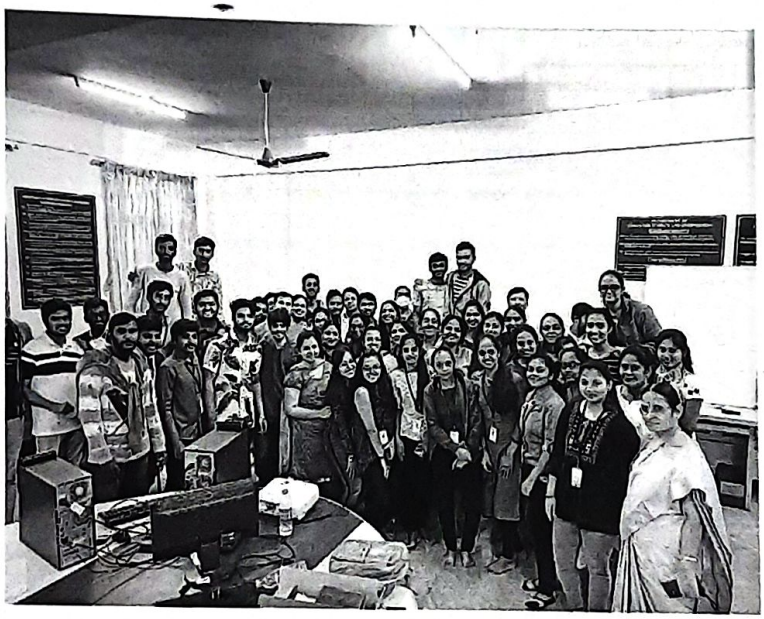


Day 3:(Morning Session)

At Morning Session we had an Talk from an industry person namely Mr. Somshekhar Y our resource person.He has completed his BE Telecommunication Engineering from KSIT. He pursued his Master's Degree from Manipal University. At present he is working at Advanced Micro Devices(AMD) as a member Technical Staff. He has been serving this company for past 6 years. He has over 8 years of industry experience in VLSI. He shared his experience to everyone that how a outside industry works and present upgradations happening over a industry. He explained how the VLSI field has importance in outside market and he explained about the payscale of an VLSI Design Engineer. He briefly explained how the core sector has a demand in day to day life compared to the IT sector and mentioned about how VLSI works Frontend and Backend from Basic Level to Advanced Level.

Day 3:(Afternoon Session)

At afternoon session Prof. Rajesh Sudi sir guided us to try once again the Hands on Session on BLYNK App to relay circuit to control led and he explained the basics concepts of an **INTEL GALLILEO** board and its Architecture. He also gave the comparision with **INTEL GALLILEO** and **RASPBERRY PI** boards. He refered us to do a blynking of an led from **INTEL GALLILEO** board and at the end of the session he gave us the basic knowledge of an implementing an idea using an Iot concept and the session was concluded.



Workshop Outcomes:

- Had Practical experience on IOT platform
- Got knowledge on usage of libraries based on various sensors like Gallellio Board,DHT11 etc.
- We gained the basic knowledge about various protocols used when communicating with hardware to software
- We had great Team work in debugging and solving the problems

POs Achieved from IOT workshop:

PO1: Science and Technology knowledge
PO2: Problem Analysis
PO3: Design and Development
PO9:: Individual and Team work
PO10: Communication

Submitted by

Dr. Rekha N

Dr. Chanda V Reddy

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