



**B.M.S. College of Engineering, Bengaluru -560019**  
**Autonomous Institute, affiliated to VTU**

1. Name of the lab: Internet Of Things
2. Department's : Computer Science and Engineering
3. Location of the lab: Dept Of CSE, Lab 2, 4th Floor, Platinum Building
4. Faculty in charge: Antara Roy Choudhury  
[antararc.cse@bmsce.ac.in](mailto:antararc.cse@bmsce.ac.in)  
Dr.K.Panimozhi  
[panimozhi.cse@bmsce.ac.in](mailto:panimozhi.cse@bmsce.ac.in)
5. Associated with industry, if any: NiL
6. List of Equipment/facilities along with specifications and photographs + software with versions:



<b>Sl.No</b>	<b>Name of the component</b>
1.	Arduino Uno
2.	Cable – USB A to B
3.	Normal wires
4.	PIR (Motion Detection Sensor)
5.	Flame sensor
6.	ESP 8266-01(ESP8266 Arduino Compatible Serial Esp-01 Wifi Wireless Transceiver)
7.	F-F Jumper Wires Pack of 40 Jumper wires
8.	M-M Jumper Wires Pack of 40 Jumpers wires
9.	M-M Jumper Wires Pack of 40 Jumpers wires
10.	Full size breadboard
11.	RFID Reader / RCC 522 RFID reader(Easy Electronics EM-18 RFID Reader -TTL (G))
12.	TCS230 TCS3200 color recognition module
13.	Soil Moisture Sensor
14.	LM – 35 (Temperature Sensor)
15.	GSM/GPRS Module(UNIVERSAL SIM900A_GSM_MODEM Sim900A Gsm Modem)
16.	Servo (1 KG Torque)
17.	Arduino LCD shield
18.	RGB LED
19.	LDR
20.	Sim Slotter
21.	HX711 Amplifier(Needed for Load cell)
22.	Component Container
23.	Ziplock pouches
24.	Tumbler(Needed for moisture sensor)
25.	Lighter
26.	pH Sensor

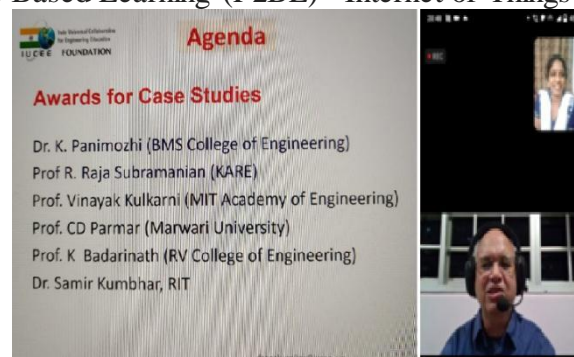
**Software used** - Arduino IDE 1.8.19

## 7. Major Achievements till date :

1. NIKHIL S SHASTRY(1BM17CS053), MEGHANA MUKUNDA JOSHI(1BM17CS146), NIYATHI SRINIVASAN KUMBALE(1BM17CS147) , student of 6th semester, CSE department have been awarded **Best Paper Award** for the presentation of the paper titled "Speech Automated Examination For Visually Impaired Student" in 2nd IEEE International Conference on "Innovative Mechanisms for Industry Applications (ICIMIA-2020)" on **5th March, 2020**.



2. Department of Computer Science & Engineering faculty Dr. K. Panimozhi and Antara Roy Choudhary were awarded with the best case study report by IUCEE in the Mini-Symposium on Problem and Project-Based Learning (P2BL) - Internet of Things on 23-11-2021.



## 8. Photographs

- Front view / Overall view of the lab

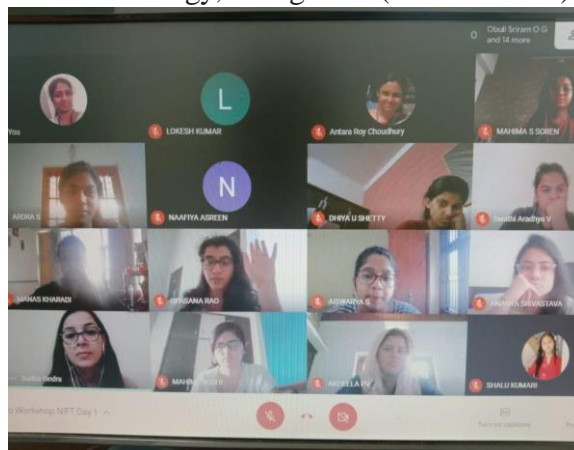


- Demonstrating the activities inside the lab



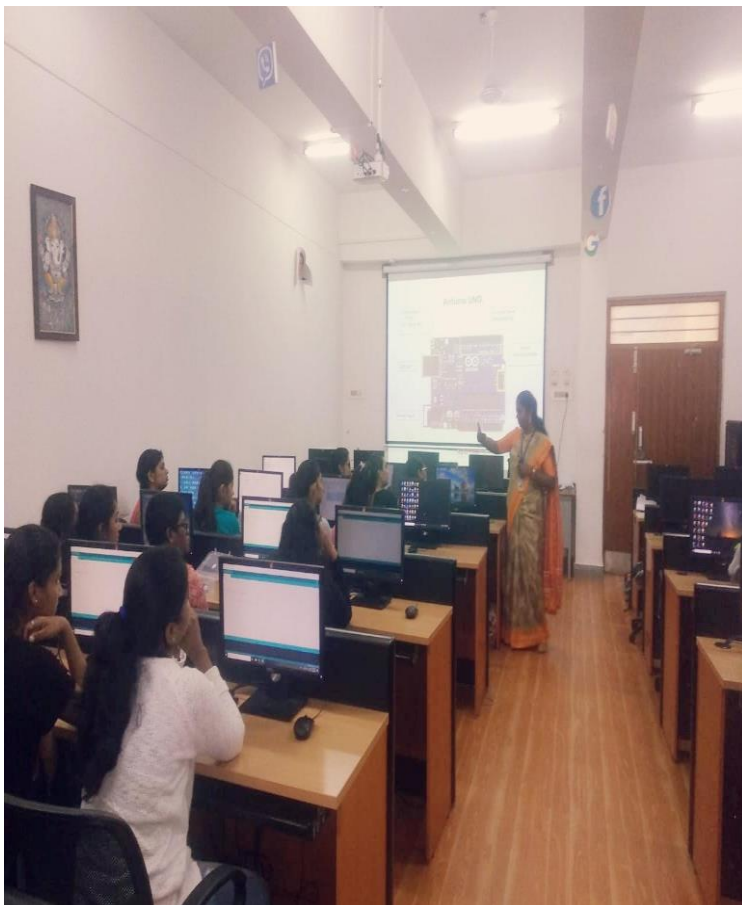
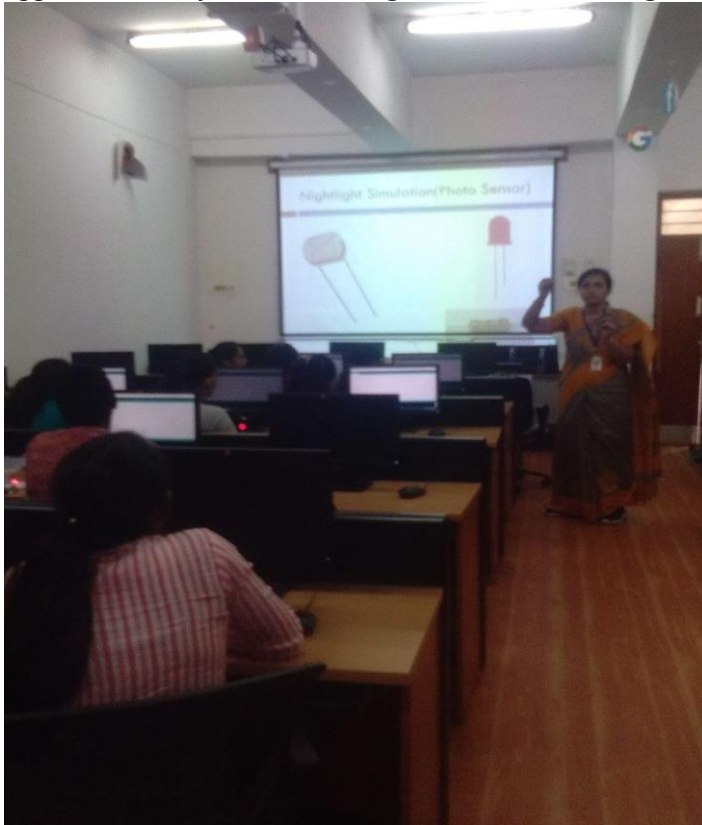
### Workshops Conducted:

- Resource Person to conduct Four day hands on workshop on “Internet of Things” by National Institute of Fashion Technology, Bengaluru (October 2021)
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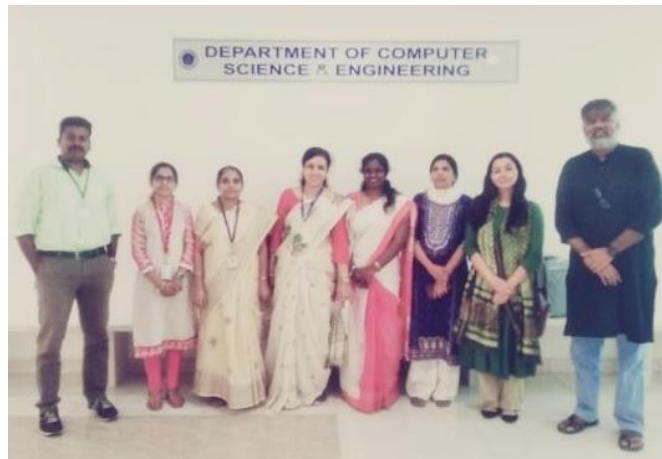




- Resource Person to conduct One day hands on workshop on “Internet of Things and its applications” by B.M.S. College for Women, Bengaluru (November 2019)



- Conducted 2 days Workshop for faculties of NIFT on Internet of Things (September 2019)



- Conducted 1 week workshop on on Internet of Things (July 2018)

- **Demo of the prototyping:**

- A. Demonstration of the implementation of Wumpus World with IoT sensors:

<https://drive.google.com/file/d/1jqUngyaw0MkVt11E5utymifIH5J6IMFA/view?usp=sharing>

- B. Smart Blind Stick

<https://drive.google.com/file/d/1jqUngyaw0MkVt11E5utymifIH5J6IMFA/view?usp=sharing>

- C. Data transmission through light:

<https://drive.google.com/file/d/1DLQYZI1thj-1kBldwKLVsZ7adP5VBQ6Z/view?usp=sharing>

- D. Industrial water quality monitoring system:

<https://drive.google.com/file/d/1UyIU6fh92EBs0CVJrq6fB7WLgrZnwIWO/view?usp=sharing>

- E. Fire Fighting Robot:

- F. Forest Safety System:

G.



9. Any other info about the lab

- IoT Labs will inspire students to create new products and services and look at providing solutions to problems from a creative mind-set. Our IoTlabs intend to provide an enriching experience to students so that they can break away from the monotony to come up with novel ideas.
- In the long run, it will help students to create start-ups