Department of Electronics and Communication Engineering

Report on the 5 Days Workshop on IOT with Raspberry Pi

A 5 Days Workshop on "IOT with Raspberry Pi" was organized by Department of Electronics and Communication Engineering, S.E.A College of Engineering and Technology, Bangalore from 8th-12th November, 2022 in association with Cranes Varsity. The timings for Morning Session was 09.00 am to 12.45 pm and afternoon Session was 1.30 to 4.00 pm. The workshop was arranged for final year and pre final year students. Nearly 37 students participated in the workshop. Inauguration for the workshop was held on CSE seminar hall on 8th November, 2022 at 10:00am. The function was presided by Dr.K.Viyyanna Rao, Director, S.E.A Group of Institutions and Dr.B.Venkatanarayana, Principal, SEACET and introduction of resource persons were given by Dr. Pradeep Kumar N.S., HOD, ECE, SEACET. The resource persons from Cranes Varsity are Mr. Nishant T, Mr.Abhishek, Mr.Bhoj Rah Prathan and Mr.Suhail. MOU was signed between Cranes Varsity and S.E.A College of Engineering and Technology for three years.

About Workshop:

Objective of the Workshop:

The broad objective of this Workshop is to improve students' knowledge and skills in the recent technology IOT through it they gain in-depth career knowledge and placement opportunities. And to prepare students for careers in the industry by training and assisting them on industry-relevant projects/platforms

Resource Person of the Workshop:

Resource Persons for the Workshop are Mr. Nishant T and Mr. Suhail from Cranes Varsity. The details about the resource person Mr. Nishant T is given below.

CRANES

24 YEARS EXCELLENCE

Mr. Nishant T

Domain Expert, Corporate Trainer for IoT

- Delivered 5000+ Manhours Training
- Expert in Raspberry Pi Training.
- Experience in MariaDB
- Experience in C, Python, and Embedded Systems.
- IOT, Raspberry pi, Arduino Microcontroller, Linux
- Re d Hat Enterprise Linux, CentOS, and Ubuntu
- Managing Users, Groups, and policies.
- Configuring the crontab to automate the tasks.
- Creating and maintaining YUM/APT/GIT repositories.
- Installing applications from the source and applying patches.
- Bash Scripting
- User administration and managing file permission and ACL.
- Setting up Web Servers (httpd).
- Experience in Configuring and Maintaining various Open Source applications on Linux - NFS, Autofs, SCP, SFTP, httpd.
- Knowledge of VM Ware, and Virtual box.
- Basic knowledge of KVM.
- Configuring VPN server(OpenVPN).
- Embedded c, Robotics

First day 08.11.22

The First day 08.11.22 workshop Inaugural function was held on CSE seminar hall at 10:00am. MOU was signed with cranes varsity during Inaugural. Later the workshop started by 11:00 am. In the forenoon session the resource person gave introduction about the importance of core domain in detail. Introduction to Raspberry Pi and generation upgradation was explained. In addition, briefed PCB presentation and chip details of Raspberry Pi.

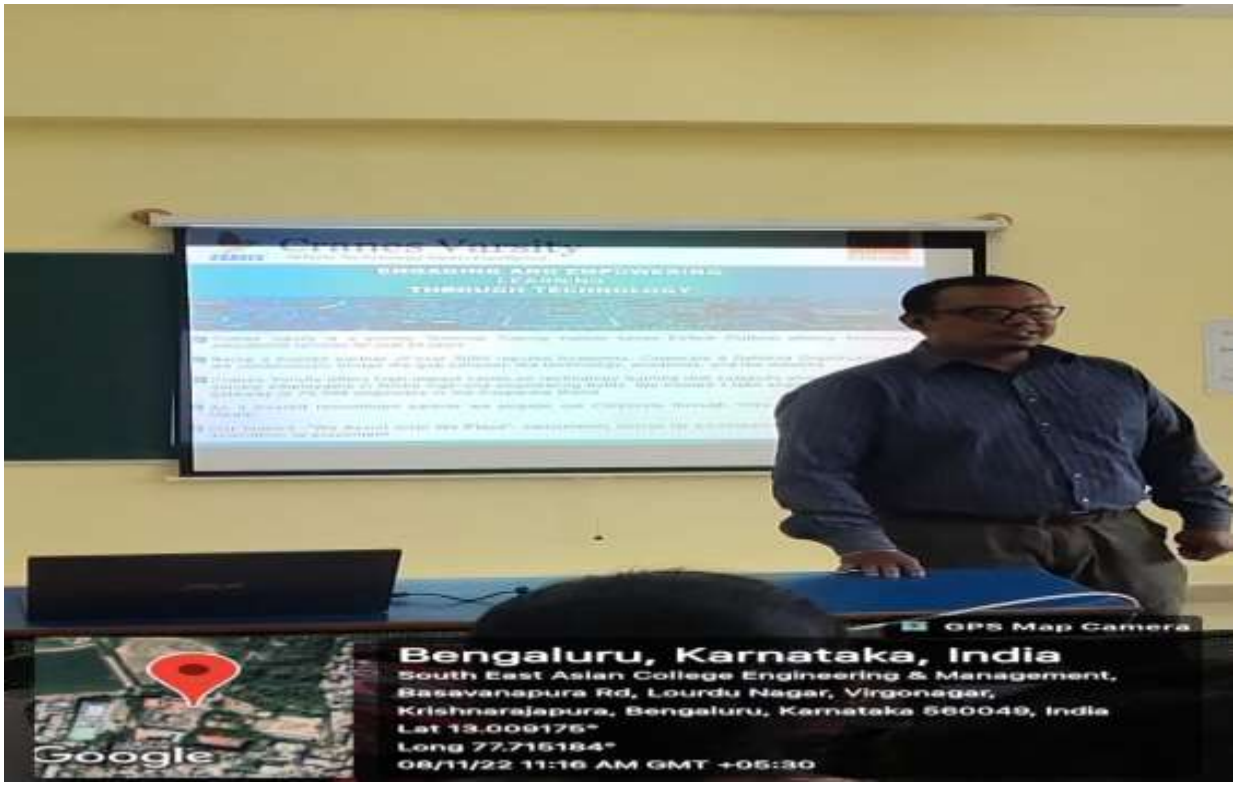
Screen Shots for First day 08.11.22 Forenoon session

Bengaluru Karnataka India
25°C
2P58+2V4, Bethel Nagar, Krishnarajapura, Bengaluru, Karnataka 560049, India
Lat: 13.01 | Long: 77.72
10/11/2022 10:41 am, IST
Thu, 10 Nov
Google

Bengaluru Karnataka India
25°C
60, 1st Main Rd, Bethel Nagar, Krishnarajapura, Bengaluru, Karnataka
Lat: 13.01 | Long: 77.72
08/11/2022 10:25 am, IST
Tue, 8 Nov
Google

In the Afternoon session the resource person explained the features of IOT. Students were given hands-on session on installation of Raspberry Pi.

Screen Shots for First day 08.11.22 Afternoon session



Second day 09.11.22

The Second day 09.11.22 Forenoon and Afternoon sessions resource person delivered lecture on how to connect Raspberry pi to the system and later hands on experience was given to students to handle the raspberry kit. Students were divided in to groups and practice on kit started. Simulation of Basic LED program using python language was taught to students. Students simulated the program and output were obtained by them.

Screen Shots for Second day 09.11.22

GPS Map Camera
Bengaluru, Karnataka, India
South East Asian College Engineering & Management, Basavanapura Rd, Lourdu Nagar, Virgonagar, Krishnarajapura, Bengaluru, Karnataka 560049, India
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GPS Map Camera
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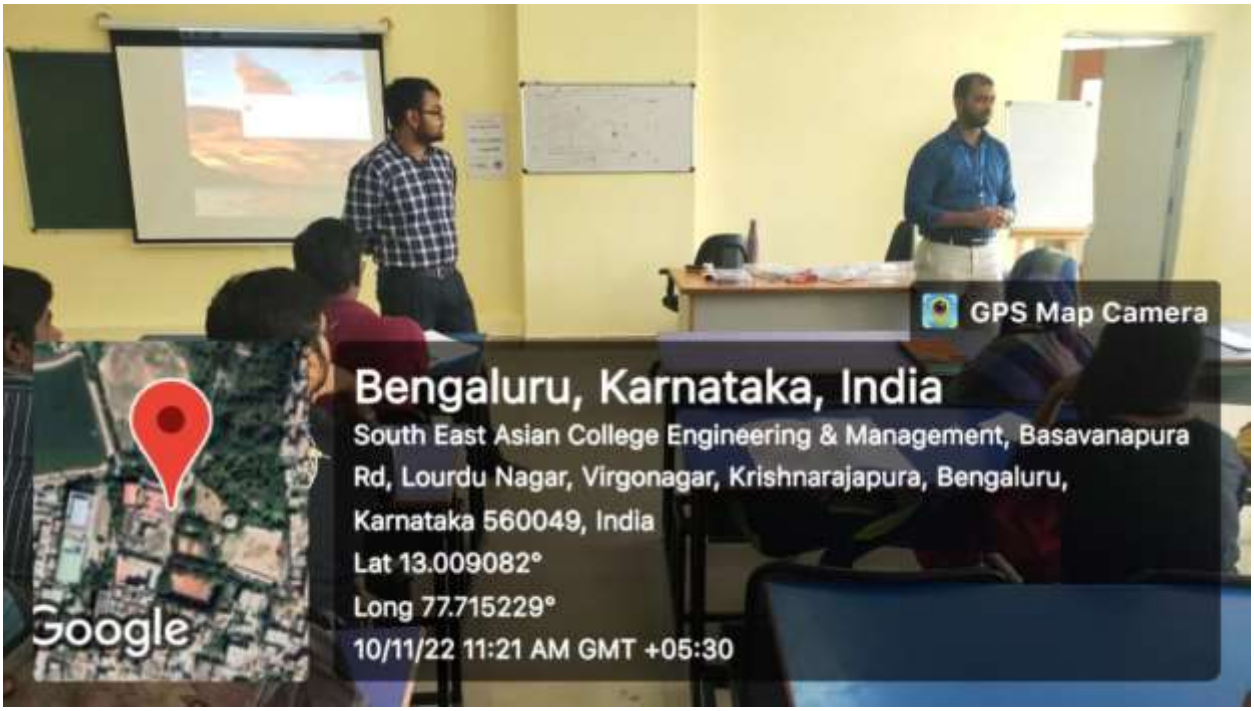
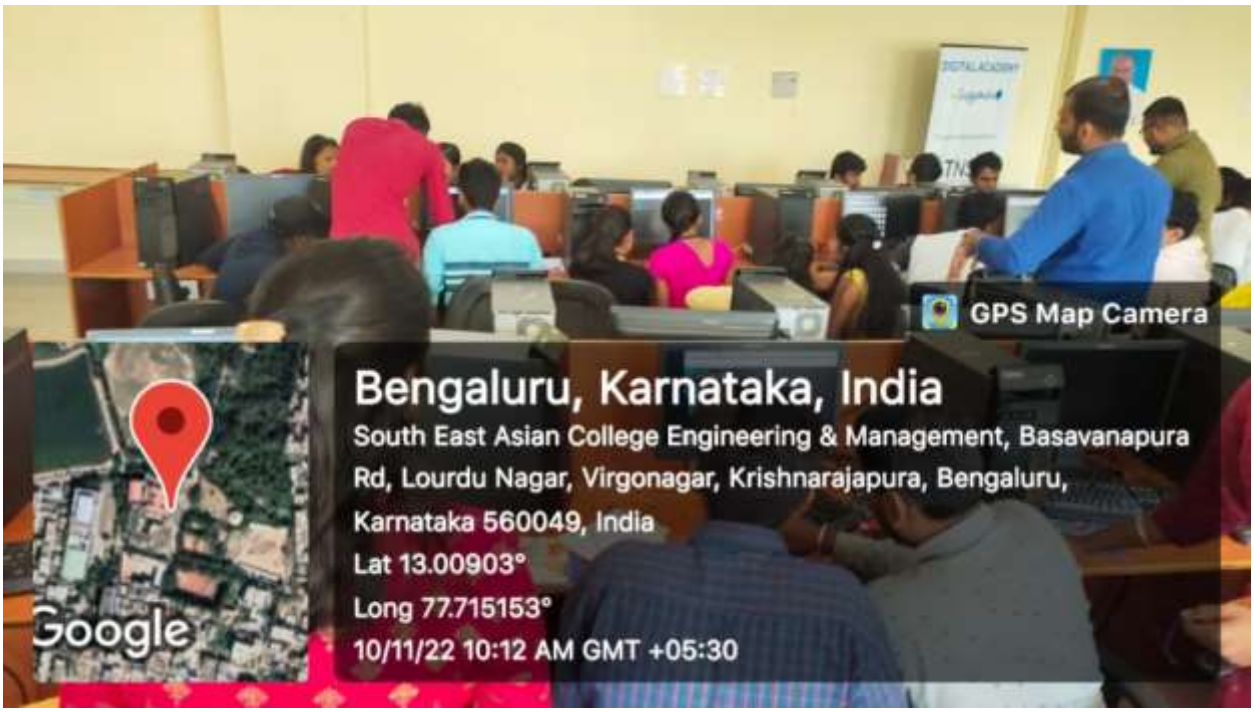
Third day 10.11.22

The Third day 10.11.22 Forenoon and Afternoon sessions resource person delivered lecture on introduction to the IR sensor and ultrasonic sensor and how to implement it using python language in Raspberry pi to the system. And later hands on experience was given to students to Simulate IR sensor and ultrasonic sensor program using python language. Students simulated the program and output were obtained by them.

Screen Shots for Third day 10.11.22

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Fourth day 11.11.22

The Fourth day 11.11.22 Forenoon and Afternoon sessions resource person delivered lecture on Seven Segment display and DHT sensor and how to implement it using python language in Raspberry pi to the system. And later hands on experience was given to students to Simulate Seven Segment display and DHT sensor program using python language. Students simulated the program and output were obtained by them.

Screen Shots for Fourth day 11.11.22

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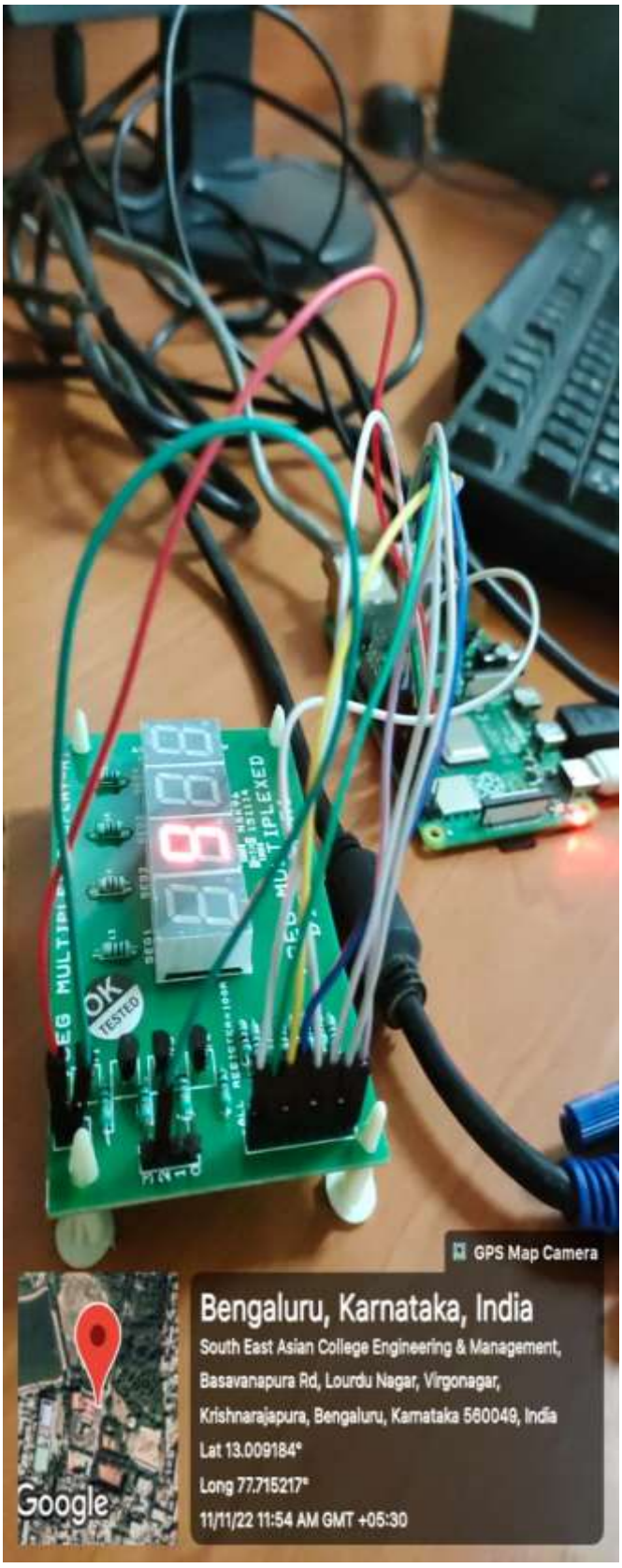
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Krishnarajapura, Bengaluru, Karnataka 560049, India
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Fifth day 12.11.22

The Fifth day 12.11.22 Forenoon and Afternoon sessions resource person delivered lecture on how to upload DHT sensor program to 'Think Speak' cloud and how to show the graphical representation of sensor values. And later hands on experience was given to students to build an interactive channel between Raspberry pi and telegram.

Screen Shots for Fifth day 12.11.22

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Krishnarajapura, Bengaluru, Karnataka 560049, India
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ACADEMY
GPS Map Camera
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Krishnarajapura, Bengaluru, Karnataka 560049, India
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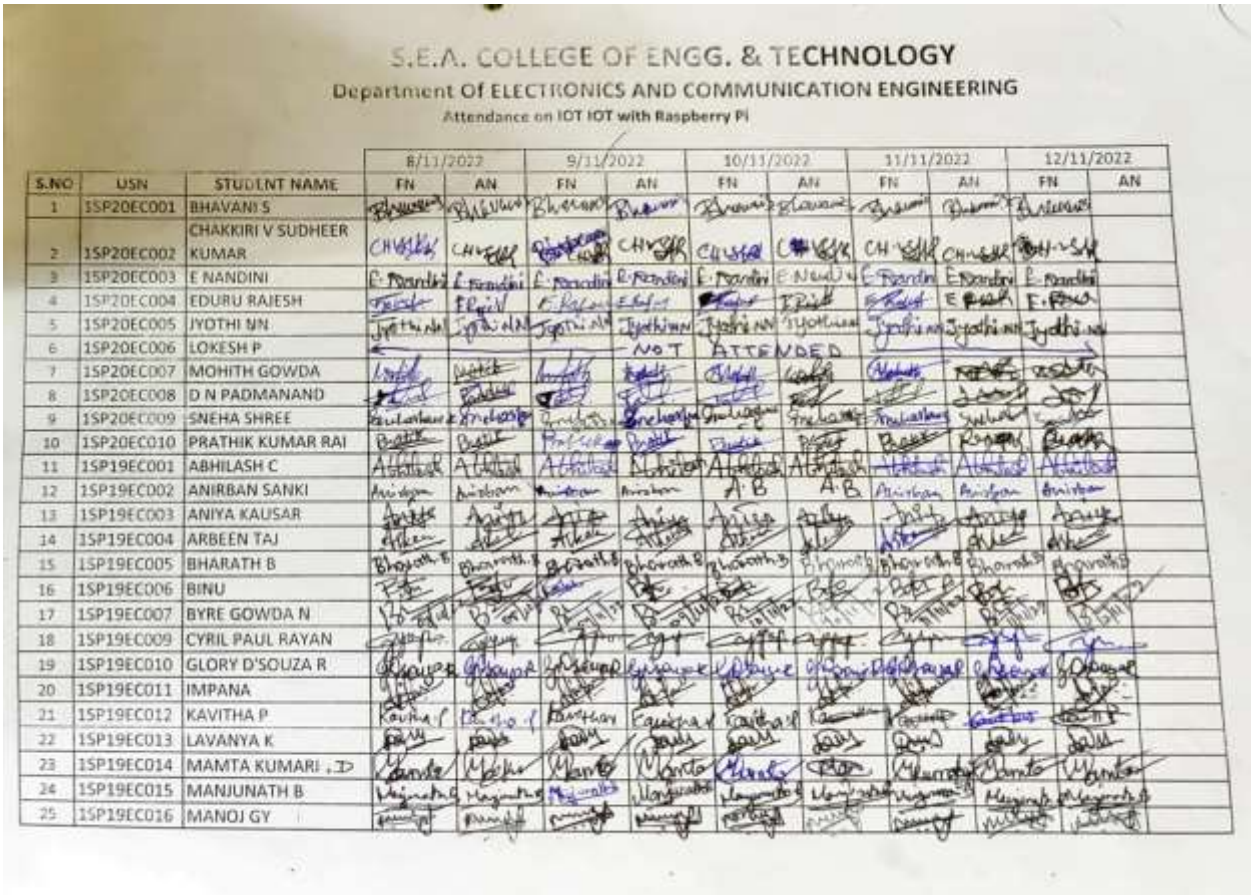
Google

The Workshop was concluded at 03.00pm. The workshop ended with the vote of thanks by Dr. Pradeep Kumar N.S., HOD, ECE, SEACET. Management sponsored for Lunch to resource persons for all five days and Hi-tea to faculties and students of ECE department for all the 5 days. Feedback forms were collected from students at the last day. The workshop was highly informative to students. Thus workshop provided valuable awareness and insights on the various aspects of IoT applications.

Students Name list – Workshop:

S.NO	USN	STUDENT NAME
1	1SP19EC001	ABHILASH C
2	1SP19EC002	ANIRBAN SANKI
3	1SP19EC003	ANIYA KAUSAR
4	1SP19EC004	ARBEEN TAJ
5	1SP19EC005	BHARATH B
6	1SP19EC006	BINU
7	1SP19EC007	BYRE GOWDA N
8	1SP19EC009	CYRIL PAUL RAYAN
9	1SP19EC010	GLORY D'SOUZA R
10	1SP19EC011	IMPANA
11	1SP19EC012	KAVITHA P
12	1SP19EC013	LAVANYA K
13	1SP19EC014	MAMTA KUMARI
14	1SP19EC015	MANJUNATH B
15	1SP19EC016	MANOJ GY
16	1SP19EC017	NAVEEN Y
17	1SP19EC018	PALLAVI AS
18	1SP19EC019	PARVATHI S
19	1SP19EC020	PRAJWAL
20	1SP19EC021	PRIYANKA KUMARI
21	1SP19EC022	RAJESH P
22	1SP19EC023	SATHVIKA GB
23	1SP19EC024	AVINASH S
24	1SP19EC026	VY SANTHOSE
25	1SP19EC027	YASHWANTH GOWDA
26	1SP19EC028	YOGESH V
27	1SP19EC030	RISHI VARDHAN
28	1SP18EC002	CHANDAN
29	1SP20EC001	BHAVANI S
30	1SP20EC002	CHAKKIRI V SUDHEER KUMAR
31	1SP20EC003	E NANDINI
32	1SP20EC004	EDURU RAJESH
33	1SP20EC005	JYOTHI NN
34	1SP20EC007	MOHITH GOWDA
35	1SP20EC008	D N PADMANAND
36	1SP20EC009	SNEHA SHREE
37	1SP20EC010	PRATHIK KUMAR RAI

Students Attendance sheet (scanned):



S.E.A. COLLEGE OF ENGG. & TECHNOLOGY

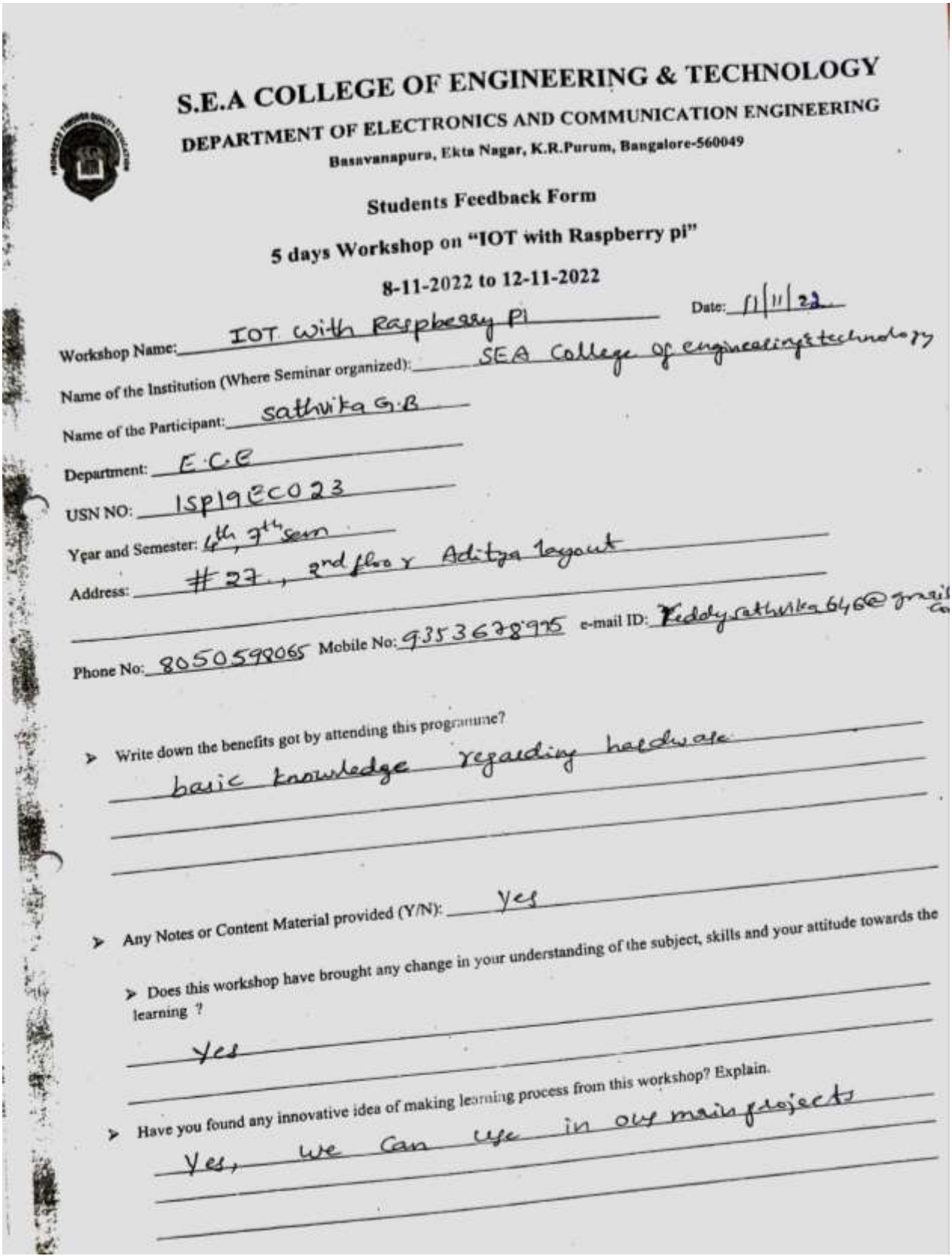
Department Of ELECTRONICS AND COMMUNICATION ENGINEERING

Attendance on IOT IOT with Raspberry Pi

S.NO	USN	STUDENT NAME	8/11/2022		9/11/2022		10/11/2022		11/11/2022		12/11/2022	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	1SP20EC001	BHAVANI S										
2	1SP20EC002	CHAKKIRI V SUDHEER KUMAR										
3	1SP20EC003	E NANDINI										
4	1SP20EC004	EDURU RAJESH										
5	1SP20EC005	JYOTHI NN										
6	1SP20EC006	LOKESH P	←			NOT	ATTENDED				→	
7	1SP20EC007	MOHITH GOWDA										
8	1SP20EC008	D N PADMANAND										
9	1SP20EC009	SNEHA SHREE										
10	1SP20EC010	PRATHIK KUMAR RAI										
11	1SP19EC001	ABHILASH C										
12	1SP19EC002	ANIRBAN SANKI					A.B	A.B				
13	1SP19EC003	ANIYA KAUSAR										
14	1SP19EC004	ARBEEN TAJ										
15	1SP19EC005	BHARATH B										
16	1SP19EC006	BINU										
17	1SP19EC007	BYRE GOWDA N										
18	1SP19EC009	CYRIL PAUL RAYAN										
19	1SP19EC010	GLORY D'SOUZA R										
20	1SP19EC011	IMPANA										
21	1SP19EC012	KAVITHA P										
22	1SP19EC013	LAVANYA K										
23	1SP19EC014	MAMTA KUMARI . D										
24	1SP19EC015	MANJUNATH B										
25	1SP19EC016	MANOJ GY										

	19EC018	PALLAVI AS									
29	1SP19EC019	PARVATHI S									
	19EC020	PRAJWAL . R. S									
	19EC021	PRIYANKA KUMARI									
31	1SP19EC022	RAJESH P									
32	1SP19EC023	SATHVIKA GB									
33	1SP19EC024	AVINASH S									
34	1SP19EC026	VY SANTHOSH									
35	1SP19EC027	YASHWANTH GOWDA									
36	1SP19EC028	YOGESH V									
37	1SP19EC030	RISHI VARDHAN									
38	1SP17EC007	HOSMANI SANJUKUMAR	←			NOT	ATTENDED				→
39	1SP18EC002	CHANDAN									
40	1SP18EC012	SRIPRIYA N	←			NOT	ATTENDED				→

Sample Feedback forms from students (scanned):



S.E.A COLLEGE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Basavanapura, Ekta Nagar, K.R.Purum, Bangalore-560049

Students Feedback Form

5 days Workshop on "IOT with Raspberry pi"

8-11-2022 to 12-11-2022

Workshop Name: IOT with Raspberry Pi Date: 11/11/22

Name of the Institution (Where Seminar organized): SEA College of engineering & technology

Name of the Participant: Sathvika G.B

Department: E.C.E

USN NO: 1SP19EC023

Year and Semester: 6th, 7th sem

Address: #27, 2nd floor Aditya layout

Phone No: 8050598065 Mobile No: 9353678975 e-mail ID: Teddysathvika646@gmail

- Write down the benefits got by attending this programme?

  basic knowledge regarding hardware

- Any Notes or Content Material provided (Y/N): Yes

- Does this workshop have brought any change in your understanding of the subject, skills and your attitude towards the learning ?

  Yes

- Have you found any innovative idea of making learning process from this workshop? Explain.

  Yes, we can use in our main projects

➤ Whether initiatives like this should be organized in the coming future or not? Give reason.

Yes, it should be

➤ How do you plan to share the gained knowledge/skill with your friends who did not attend the workshop?

by sharing reading materials to my friends

✓ Kindly give rating to the different aspects of Workshop (Out of 10 marks)

Particular	Marks Given	Any Remarks
(a) Course Content	9	+
(b) Resource Persons	10	-
(c) Presentations	9	-
(d) Interactive Sessions	9	-
(e) Reading Material	10	-
(f) Basic Facilities	10	-
(g) Overall	10	-

Signature of the Participant

S.E.A COLLEGE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Basavanapura, Ekta Nagar, K.R.Puram, Bangalore-560049

Students Feedback Form

5 days Workshop on "IOT with Raspberry pi"

8-11-2022 to 12-11-2022

Workshop Name: IOT with Raspberry Pi Date: 12/11/2022

Name of the Institution (Where Seminar organized): SEA College of engineering and technology.

Name of the Participant: D.N Padmanand

Department: ECE

USN NO: 1SP20EC008

Year and Semester: 3rd year 5th Sem.

Address: No 140 2nd Cross opposite old Post office Road Doddanakundi Banglore-37.

Phone No: 6363777023 Mobile No: e-mail ID: dnpadmanand140@gmail.com.

- Write down the benefits got by attending this programme?

  Due to this programme we could get know more about IOT and how IOT are used.

- Any Notes or Content Material provided (Y/N): YES

- Does this workshop have brought any change in your understanding of the subject, skills and your attitude towards the learning ?

  Yes I have understood about Raspberry Pi and skills to use it

- Have you found any innovative idea of making learning process from this workshop? Explain.

  Yes I learnt to work with various sensors

- Whether initiatives like this should be organized in the coming future or not? Give reason.

Yes these should be organized

- How do you plan to share the gained knowledge/skill with your friends who did not attend the workshop?

by sharing my Knowledge with my friends

✓ Kindly give rating to the different aspects of Workshop (Out of 10 marks)

Particular	Marks Given	Any Remarks
(a) Course Content	10	
(b) Resource Persons	10	
(c) Presentations	10	
(d) Interactive Sessions	10	
(e) Reading Material	10	
(f) Basic Facilities	10	
(g) Overall	10	

Signature of the Participant