



## **SOUTH EAST ASIAN EDUCATION TRUST® S.E.A. COLLEGE OF ENGINEERING & TECHNOLOGY**

(Approved by All India Council for Technical Education (AICTE), New Delhi  
Affiliated to Visvesvaraya Technological University(VTU), Belagavi, Recognised by Government of Karnataka)

Department of Electronics and Communication Engineering

### **Report on the 5 Days Workshop on Drone Model Building and Embedded IOT Application Development**

A 5 Days Workshop on “Drone Model Building and Embedded IOT Application Development” was organized by Department of Electronics and Communication Engineering, S.E.A College of Engineering and Technology, Bangalore from 11<sup>th</sup>-15<sup>th</sup> December, 2023 in association with Pragmatic Embd Solutions. 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, third year and second year ECE students. Nearly 69 students participated in the workshop. Inauguration for the workshop was held on CSE seminar hall on 8<sup>th</sup> November, 2022 at 10:00am. The function was presided by Dr.Bhagavant K Deshpande, Director, SEACET and Dr.B.Venkatanarayana, Principal, SEACET and introduction of resource person was given by Dr. Pradeep Kumar N.S., HOD, ECE, SEACET.

The resource person from Pragmatic Embd Solutions is Shashi Kiran, Director of company. MOU was signed between Pragmatic Embd Solutions and S.E.A College of Engineering and Technology for three years.

#### **About**

#### **Workshop:**

**S.E.A College of Engineering and Technology**  
Affiliated to VTU, Belagavi and Approved by AICTE, New Delhi and Accredited B++ by NAAC  
Ekta Nagar, Near Ayyappa Nagar Circle, Devasandra Main Road, K.R.Puram, Bangalore-49

**Department of Electronics and Communication Engineering**

**Organizes**

**Five Days Workshop on**  
**“Drone Model Building and Embedded IOT Application Development”**

**In Association with IQAC, IIC and PRAGMATIC EMBD SOLUTIONS**

**From 11<sup>th</sup> to 15<sup>th</sup> December 2023**

**NAAC Accredited B++**

**Diagram illustrating a Drone Model Building and Embedded IOT Application Development system, showing a drone connected to a cloud and various ground stations.**

## **Objective of the Workshop:**

The broad objective of this Workshop aimed at giving your students a practical exposure on the diversified hardware and software used in Embedded Systems. The program covers hands-on Training on Arduino Boards.

## **Resource Person of the Workshop:**

Resource Persons for the Workshop is Mr.Sashi Kiran from Pragmatic Embd Solutions.

## **First day 11.12.23**

The First day 11.12.23 workshop Inaugural function was held on AC seminar hall at 10:00am. Later the workshop started by 11:00 am. In the first day the resource person gave introduction about embedded systems. Learnt about Features of ESP32 IOT Board. Along with the operations of relay, buzzer, LED and regulator.

Screen Shots for First day 11.12.23





GPS Map Camera



Bengaluru, Karnataka, India

South East Asian College Engineering & Management, Basavanapura Rd, Lourdu Nagar, Virgonagar, Krishnarajapura, Bengaluru, Karnataka 560049, India

Lat 13.008787°

Long 77.715035°

11/12/23 10:05 AM GMT +05:30

Google



## Second day 12.12.22

The Second day 12.12.23 Forenoon and Afternoon sessions resource person delivered lecture on how to do operate DC motor drive, operation of relay and operation based on relay light. Learnt features of battery operator.

Screen Shots for Second day 12.12.23

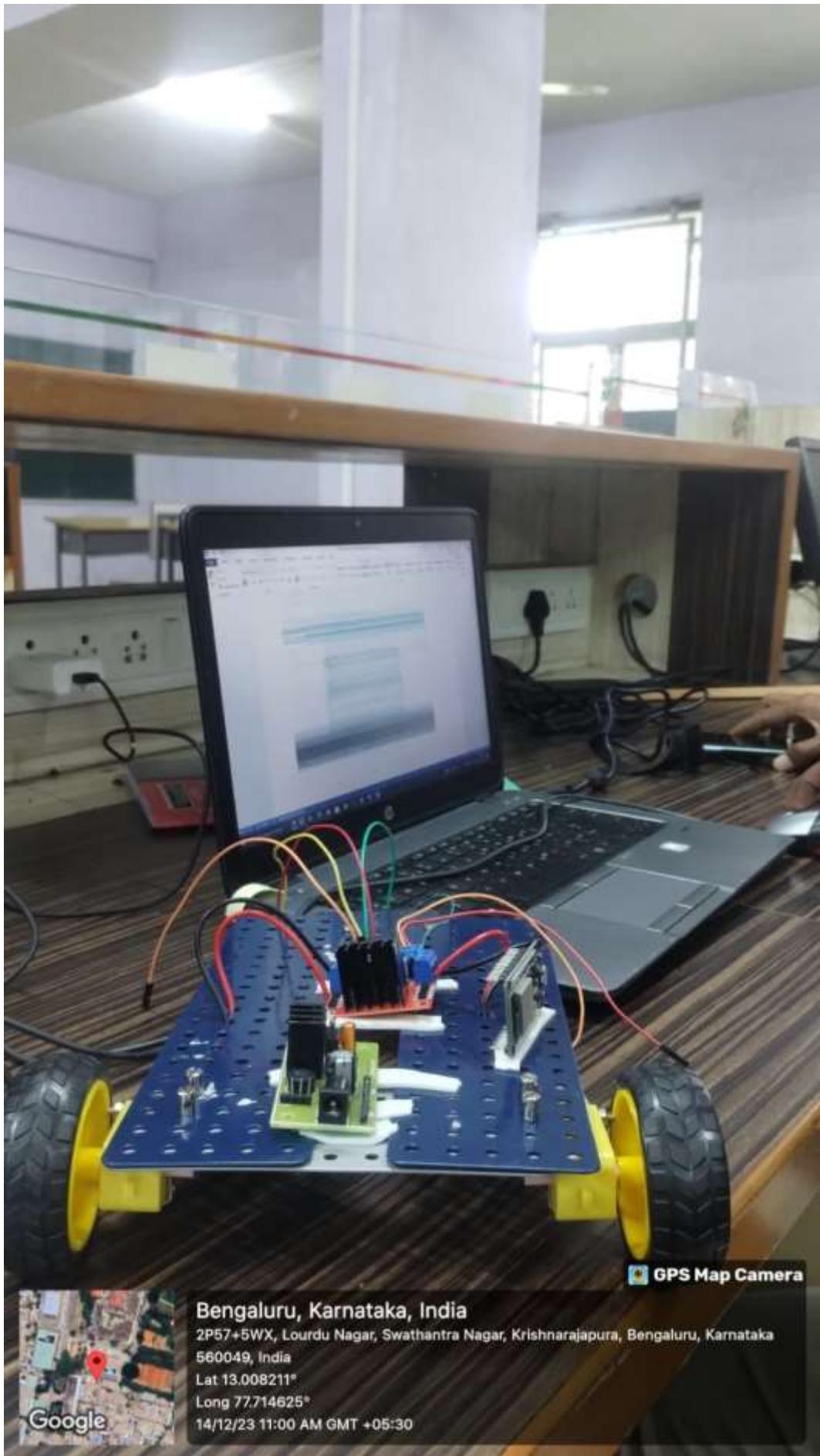


### Third day 13.12.23

The Third day 13.12.23 Forenoon and Afternoon sessions resource person delivered lecture on sensor activity. They learnt about surface mount devices, place through holes, IR sensor, LCD test, accelerometer test.

Screen Shots for Third day 13.12.23





Bengaluru, Karnataka, India

2P57+5WX, Lourdu Nagar, Swathantra Nagar, Krishnarajapura, Bengaluru, Karnataka

560049, India

Lat 13.008211°

Long 77.714625°

14/12/23 11:00 AM GMT +05:30

## **Fourth day 14.12.23**

The Fourth day 14.12.23 Forenoon and Afternoon sessions resource person delivered lecture on Robotic Assembly, robotic control using Bluetooth and Bluetooth controlled robot.

Screen Shots for Fourth day 14.12.23



## **Fifth day 15.12.23**

The Fifth day 15.12.23 Forenoon and Afternoon sessions resource person gave hands on practice on how to control accelerometer, Drone Flying and Industrial Data Logger. MOU was signed between pragmatic embd solutions and SEA College of Engineering and Technology for three years.

Screen Shots for Fifth day 15.12.23



The Workshop was concluded at 03.00pm. The workshop ended with the vote of thanks by Dr. Pradeep Kumar N.S., HOD, ECE, SEACET. Lunch was provided at last day 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 Embedded Systems

### **Outcome from the Workshop:**

- Drone Model Construction Proficiency
- Embedded IoT Application Development Skills
- Autonomous Flight Capabilities
- IoT Application Development for Drone Data

### **Students Name list – Workshop:**

Sl.No.	Student Name
1	AISHWARYA H R
2	BHARADWAZ R
3	JAGATI SAI TEJA
4	JALANI K S
5	KANNIKA P N
6	KARTHIK V H
7	KEVIN GEORGE D
8	NIKHIL K
9	RANJITHA M
10	S YUVARAJ
11	SAHANA H
12	SHAMME ZEHRA
13	SINDHU K J
14	SINDHU V
15	SKANDA P
16	SONIKA N
17	SPOORTHI J
18	SRIDHAR S MELI
19	SUZAIN KHANUM
20	THIRTAKUMAR H B
21	VAISHNAVI PATIL
22	VENUGOPAL H R
23	VYSHNAVI A R
24	Charithra Rani
25	Gagankumar T N

26	Srikanth D Nayaka
27	Sudeep B S
28	Thugu Aswini
29	Abhi S R
30	Aishwarya.m
31	ANJALI M
32	Bhargav A
33	Chaithra k R
34	Chiranjeevi S
35	DAKSHIRAJU SREENATH
36	Divya k s
37	Emmanuel chaudhary
38	Harsha.G
39	Jhonathan P
40	Manoj Kumar M
41	Moksha S
42	Muskan.A
43	Nandish T. S
44	Neerisha.M
45	Pallavi .K.A
46	Pranowmya Nalam
47	V Punnish
48	Sakshi Mohandas Pai
49	SANGEETHA C
50	Shama K
51	SHREYA RAJENDRA DEVEKAR
52	Sindhuja M.R
53	Sofiya.J
54	Soujanya C S
55	Swapna B V
56	Teja
57	Yashwanth C R
58	C V SUDHEER KUMAR
59	EDURU RAJESH
60	LOKESH P
61	MOHITH GOWDA C B
62	D N PADMANAND
63	PRATIK KUMAR RAI

## **Students Attendance sheet (scanned):**



S.E.A. COLLEGE OF ENGINEERING & TECHNOLOGY

Department of Electronics and Communication Engineering

III SEM Drone Workshop Attendance List from (11.12.23 to 15.12.23)

S.No.	USN	Student Name	11.12.2023		12.12.2023		13.12.2023		14.12.2023		15.12.2023	
			FN	AN	FN	AN	FN	AN	FN	AN	EN	AN
1	1SP22EC001	Abhi S R	Abhi	S R	Abhi	S R	Abhi	S R	Abhi	S R	Abhi	S R
2	1SP22EC002	Aishwarya.m	Aishwarya	m								
3	1SP22EC005	ANJALI M	Anjali	M								
4	1SP22EC007	Bhargav A	Bhargav	A	Bhargav	A	Bhargav	A	Bhargav	A	Bhargav	A
5	1sp22EC008	Chaitra k R	Chaitra	k R	Chaitra	k R	Chaitra	k R	Chaitra	k R	Chaitra	k R
6	1SP22EC012	Chiranjeevi S	Chiranjeevi	S	Chiranjeevi	S	Chiranjeevi	S	Chiranjeevi	S	Chiranjeevi	S
7	1SP22EC014	DAKSHIRAJU SREENATH	D. S	R. S								
8	1SP22EC017	Divya k s	Divya	k s	Divya	k s	Divya	k s	Divya	k s	Divya	k s
9	1SP22EC018	Emmanuel chaudhary	Emmanuel	chaudhary	Emmanuel	chaudhary	Emmanuel	chaudhary	Emmanuel	chaudhary	Emmanuel	chaudhary
10	1SP22EC019	Harsha.G	Harsha	G								
11	1SP22EC022	Jhonathan P	Jhonathan	P	Jhonathan	P	Jhonathan	P	Jhonathan	P	Jhonathan	P
12	1SP22EC024	Manoj Kumar M	Manoj	Kumar								
13	1SP22EC025	Moksha S	Moksha	S								
14	1SP22EC027	Muskan.A	Muskan	A								
15	1SP22EC029	Nandish T. S	Nandish	T. S	Nandish	T. S	Nandish	T. S	Nandish	T. S	Nandish	T. S
16	1SP22EC031	Neerisha.M	Neerisha	M								
17	1SP22EC037	Pallavi .K.A	Pallavi	.K.A	Pallavi	.K.A	Pallavi	.K.A	Pallavi	.K.A	Pallavi	.K.A
18	1SP22EC038	Pranowmya Nalam	Pranowmya	Nalam	Pranowmya	Nalam	Pranowmya	Nalam	Pranowmya	Nalam	Pranowmya	Nalam
19	1SP22EC041	V Punnish	V Punnish									
20	1SP22EC044	Sakshi Mohandas Pai	Sakshi	Mohandas Pai								
21	1SP22EC045	SANGEETHA C	Sangeetha	C	Sangeetha	C	Sangeetha	C	Sangeetha	C	Sangeetha	C
22	1SP22EC048	Shama K	Shama	K	Shama	K	Shama	K	Shama	K	Shama	K
23	1SP22EC051	DEVEKAR	Devekar									
24	1SP22EC052	Sindhuja M.R	Sindhuja	M.R	Sindhuja	M.R	Sindhuja	M.R	Sindhuja	M.R	Sindhuja	M.R
25	1SP22EC053	Sofiya.J	Sofiya	J								
26	1SP22EC054	Soujanya C S	Soujanya	C S	Soujanya	C S	Soujanya	C S	Soujanya	C S	Soujanya	C S
27	1SP22EC056	Swapna B V	Swapna	B V								
28	1sp22ec057	Teja	Teja									
29	1SP22EC063	Yashwanth C R	Yashwanth	C R	Yashwanth	C R	Yashwanth	C R	Yashwanth	C R	Yashwanth	C R



**S.E.A. COLLEGE OF ENGINEERING & TECHNOLOGY**  
Department of Electronics and Communication Engineering

V SEM Drone Workshop Attendance List

Sl.No	Student Name	11.12.2023		12.12.2023		13.12.2023		14.12.2023		15.12.2023	
		FN	AN								
1	AISHWARYA H R	Aishwarya	H R	Aishwarya	H R	Aishwarya	H R	Aishwarya	H R	Aishwarya	H R
2	BHARADWAZ R	Bharadwaz	R	Bharadwaz	R	Bharadwaz	R	Bharadwaz	R	Bharadwaz	R
3	JAGATI SAI TEJA	Jagati	Sai Teja	Jagati	Sai Teja	Jagati	Sai Teja	Jagati	Sai Teja	Jagati	Sai Teja
4	JALANI K S	Jalani	K S	Jalani	K S	Jalani	K S	Jalani	K S	Jalani	K S
5	KANNIKA P N	Kannika	P N	Kannika	P N	Kannika	P N	Kannika	P N	Kannika	P N
6	KARTHIK V H	Karthik	V H	Karthik	V H	Karthik	V H	Karthik	V H	Karthik	V H
7	KEVIN GEORGE D	Kevin	George D	Kevin	George D	Kevin	George D	Kevin	George D	Kevin	George D
8	NIKHIL K	Nikhil	K	Nikhil	K	Nikhil	K	Nikhil	K	Nikhil	K
9	RANJITHA M	Ranjitha	M								
10	S YUVARAJ	S Yuvraj	S Yuvraj								
11	SAHANA H	Sahana	H	Sahana	H	Sahana	H	Sahana	H	Sahana	H
12	SHAMME ZEHRA	Shamme	Zehra	Shamme	Zehra	Shamme	Zehra	Shamme	Zehra	Shamme	Zehra
13	SINDHU K J	Sindhu	K J	Sindhu	K J	Sindhu	K J	Sindhu	K J	Sindhu	K J
14	SINDHU V	Sindhu	V	Sindhu	V	Sindhu	V	Sindhu	V	Sindhu	V
15	SKANDA P	Skanda	P	Skanda	P	Skanda	P	Skanda	P	Skanda	P
16	SONIKA N	Soniya	N	Soniya	N	Soniya	N	Soniya	N	Soniya	N
17	SPOORTHI J	Spoorthi	J								
18	SRIDHAR S MELI	Sridhar	S Meli	Sridhar	S Meli	Sridhar	S Meli	Sridhar	S Meli	Sridhar	S Meli
19	SUZAIN KHANUM	Suzain	Khanum	Suzain	Khanum	Suzain	Khanum	Suzain	Khanum	Suzain	Khanum
20	THIRTAKUMAR H B	Thirtha	H B	Thirtha	H B	Thirtha	H B	Thirtha	H B	Thirtha	H B
21	VAISHNAVI PATIL	Vaishnavi	Patil	Vaishnavi	Patil	Vaishnavi	Patil	Vaishnavi	Patil	Vaishnavi	Patil
22	VENUGOPAL H R	Venugopal	H R	Venugopal	H R	Venugopal	H R	Venugopal	H R	Venugopal	H R
23	VYSHNAVI A R	Vyshnavi	A R								
24	Charithra-Rani	Charithra	Rani								
25	Gagankumar T N	Gagankumar	T N	Gagankumar	T N	Gagankumar	T N	Gagankumar	T N	Gagankumar	T N
26	Srikanth D Nayaka	Srikanth	D Nayaka								
27	Sudeep B S	Sudeep	B S	Sudeep	B S	Sudeep	B S	Sudeep	B S	Sudeep	B S
28	Thugu Aswini	Thugu	Aswini	Thugu	Aswini	Thugu	Aswini	Thugu	Aswini	Thugu	Aswini
29	Pawan	Pawan									

## Sample Feedback forms from students (scanned):

 **SOUTH EAST ASIAN EDUCATION TRUST**  
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**Department of Electronics and Communication Engineering**

**Students Feedback Form**

**Workshop on "Drone Model Building and Embedded IoT Applications Development" for ECE students in association with IQAC and IIC from 11<sup>th</sup> to 15<sup>th</sup> December, 2023**

Workshop Name: Drone Model Building & Embedded IoT Applications Development Date: 15-12-23

Name of the Institution: S.E.A college of engineering and technology

Program Date: 11/12/23 to 15/12/23

Name of the Participant: SPOORTHI-T

Department: Electronics and communication engineering

USN NO: 1SP21EC027

Year and Semester: 3rd year (5<sup>th</sup> sem)

Address: #80, 63rd cross, 2nd main, Nisargao layout, Doddinkundi, Bangalore-37

Phone No: 8088139828 Mobile No: \_\_\_\_\_ e-mail ID: spoorthi003@gmail.com

> Write down the benefits got by attending this program?  
Learned about Arduino Software and Usage of ESP-32 boards.

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

> Does this program 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 program? Explain.

In this Drone making

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

Yes, like this workshop should be done in coming year It's very useful in the coming future

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

It is very useful topic / project in coming future so, I will explain to my friends who are not attended the workshop

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

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

Sangeetha C.  
Signature of the Participant



### Students Feedback Form

Workshop on "Drone Model Building and Embedded IoT Applications Development" for ECE students in association with IQAC and IIC from 11<sup>th</sup> to 15<sup>th</sup> December, 2023

Workshop Name: Drone Model Building & Embedded IoT Date: 15-12-23

Name of the Institution: S.E.A. College

Program Date: 11-12-23

Name of the Participant: Sangeetha.C.

Department: ECE

USN NO: 12P22E045

Year and Semester: 2nd year 3rd sem

Address: Hostel

Phone No: 9337728366 Mobile No: 8549046427 e-mail ID: SangeethaC264@gmail.com

➤ Write down the benefits got by attending this program?

We learned new things in the project

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

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

Yes, It's very usefull in further studies

➤ Have you found any innovative idea of making learning process from this program? Explain.

Yes, we learned new things

YES, I would like to work on more projects like this

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

YES, THIS WILL DEFINETELY HELP STUDENTS.

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

I WOULD LIKE TO WORK AND PUBLISH IT ON MEDIA, SO MANY PEOPLE GAIN INTEREST TOWARDS THIS.

✓ 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