04/12/2025

Report on the Four-Day Bootcamp on IoT Device Programming

Organized by: DST-iTBI–GSSSTBIF, Mysuru
In association with: C-DAC Bengaluru & Department of ECE, GSSSIETW
Revised Date: 1st – 4th December 2025
Venue: Room No. D-015, 'D' Block, GSSSIETW Campus

1. Introduction

The GSSS Technology Business Incubator Foundation (GSSSTBIF), Mysuru, conducted a four-day Bootcamp on *"IoT Device Programming"* in collaboration with the Centre for Development of Advanced Computing (C-DAC), Bengaluru, and the Department of Electronics and Communication Engineering (ECE), GSSSIETW.

This Bootcamp was organized as **Phase II** of the IoT training initiative under the Future Skills PRIME (FSP) program of the Government of India. In Phase I, **120 students** were trained. Phase II focused on providing the remaining students with advanced exposure to IoT device programming and embedded systems.

2. Resource Person

The sessions for Phase II were handled by **Mr. Pranav Sangar**, Project Engineer, C-DAC Bengaluru

Mr. Sangar delivered an industry-oriented training experience, providing strong emphasis on real-time applications, IoT communication protocols, and hands-on programming of embedded hardware.

3. Program Overview

As this Bootcamp was a continuation of the Phase I training program, no formal inauguration was conducted.

This phase specifically targeted 68 students from the ECE – Section C, ensuring that all pre-final year students of the department received uniform exposure to IoT technologies, microcontroller programming, and industry practices.

4. Topics Covered

The Bootcamp delivered a structured training experience combining theoretical foundations with hands-on practical sessions. Major topics included:

- Fundamentals of IoT and its real-world applications
- Sensors and actuators: concepts, interfacing, and implementation
- Microcontroller programming fundamentals
- Wireless technologies for IoT: Wi-Fi, BLE, Zigbee
- IoT communication protocols: MQTT, CoAP, REST
- End-to-end IoT application workflow: development to deployment

Training Hardware: Ubi Mote IoT Development Kit

Participants engaged in coding assignments, demonstrations, and group tasks that helped reinforce key concepts.

5. Outcomes of the Bootcamp

The Bootcamp successfully enabled participants to:

- Gain strong conceptual clarity on IoT architecture
- Develop practical skills in sensor integration and microcontroller programming
- Understand industry-grade wireless standards and protocols
- Explore C-DAC's approaches to IoT system design
- Demonstrate interest in pursuing IoT projects and early-stage innovation

6. Participation and Feedback

A total of **68 students** from the 5th Semester ECE (Section C) enthusiastically participated in Phase II.

Feedback confirmed that the participants found the Bootcamp highly engaging and technically enriching. Students appreciated the hands-on activities, clarity of instruction, and relevance to current industry technologies.

7. Conclusion

The Four-Day Bootcamp on IoT Device Programming achieved its objective of delivering practical, application-driven training to ECE students. Conducted as the second phase of a two-part training effort, this initiative ensured that **all students of the department received essential IoT skills** aligned with the Future Skills PRIME mandate.

The collaboration between DST-iTBI–GSSSTBIF, C-DAC Bengaluru, and GSSSIETW continues to strengthen the institution's commitment to fostering technical competency, innovation, and entrepreneurship among students.

Prepared by:

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05/12/25

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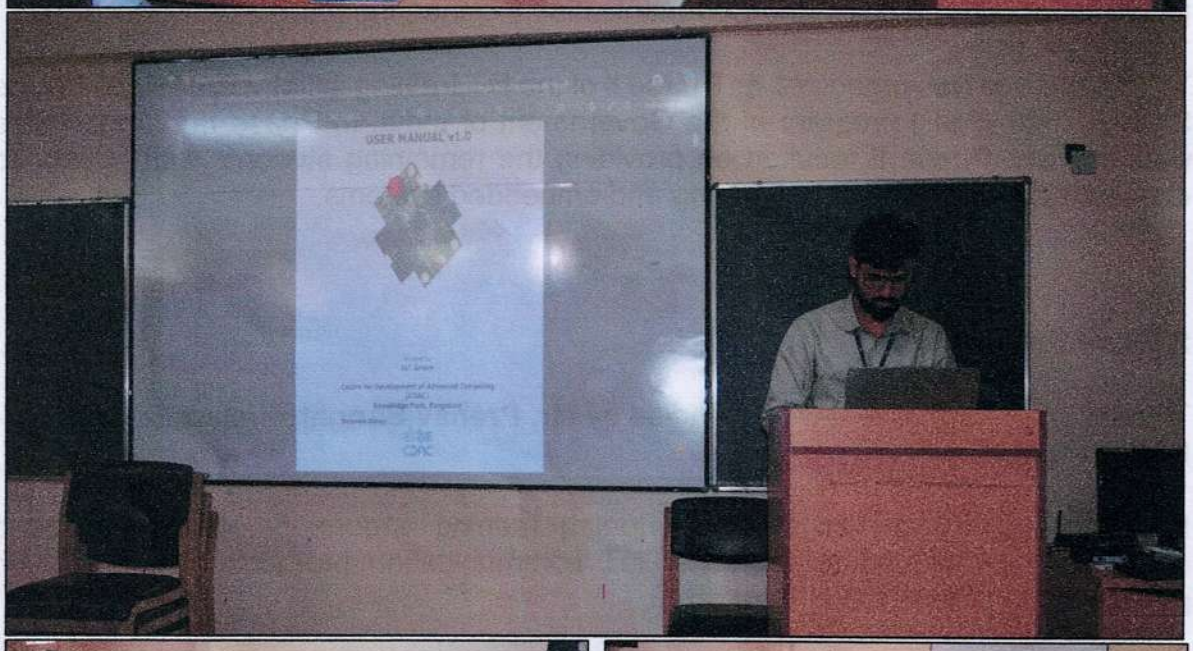
Mysuru

Chairman,
Governing Body,
DST-iTBI-GSSSTBIF


DST NIDHI
5-Days BootCamp
on
"IoT Device Programming" in
collaboration with C-DAC Bangalore
for 5th sem
Mysuru.


USER MANUAL v1.0

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

FEEDBACK

Date: 22/08/2025

Event: Five day Boot Camp held from 18th to 22nd August 2025 on **"IoT Device Programming"** for 5th Sem A Section

Resource Persons: **1) Mr. Murugan S, Scientist-D, ACTS & BD, C-DAC, Banglore**

2) Pranav Sangar, Project Engineer, C-DAC, Banglore

3) Dnyaneshwar Anshiram Gange, Project Engineer, C-DAC, Banglore

Does this event:

Q1: Help you to indulge in lifelong learning
Q2: Help you to learn Modern engineering tools to solve Engineering Problems.
Q3: Help you to work effectively as an individual, and a team to learn multidisciplinary concept.

Sl. No	USN	Q1	Q2	Q3	Please provide the feedback on the program to improve the event quality	Signature
1	4GW23EC001	3	3	3	Informative	
2	4GW23EC002	3	3	3	Informative	
3	4GW23EC003	3	3	3	the workshop was good	
4	4GW23EC004	3	3	3	We expect more components in upcoming workshops.	Aishwarya G
5	4GW23EC005	3	3	3	we expect more components in upcoming workshop	
6	4GW23EC006	3	3	3	We had good hands on experience of ubimok and others	
7	4GW23EC007	3	3	3	Overall workshop is good	Aishwarya. L
8	4GW23EC008	3	3	3	Very Informative	Aishwarya M
9	4GW23EC009	3	3	3	Informative	Aishwarya.M
10	4GW23EC010	3	2	2	We could have utilized the time even more efficiently	
11	4GW23EC011	3	3	3	Informative	Aishwarya

	4GW23EC012	3	3	3	overall training was good but shortage of component	Amrutha.M
13	4GW23EC013	3	3	3	we expect more components in upcoming workshop	Amrutha P
14	4GW23EC014	3	3	3	We expect more components in upcoming workshop	Amutha.R
15	4GW23EC016	3	3	3	We expect sufficient component to utilize the time effectively.	Amulya.L
16	4GW23EC017	3	3	3	Very informative	Anaiya M.S
17	4GW23EC018	3	3	3	overall training was good but expected detailed explanation	Ananya.CM
18	4GW23EC019	3	3	3	It was very useful	Anany
19	4GW23EC020	3	3	3	Good	[illegible]
20	4GW23EC021	3	3	3	The workshop was good but expected sufficient component	Ananya S.S
21	4GW23EC022	3	3	3	the workshop was good but expected sufficient component	[illegible]
22	4GW23EC023	3	3	3	Good	[illegible]
23	4GW23EC024	3	3	3	Good	Ankitha V
24	4GW23EC025	3	3	3	Good	[illegible]
25	4GW23EC027	3	3	3	The workshop was very useful & helpful.	[illegible]
26	4GW23EC028	3	3	3	The workshop was very helpful	Bhavana M.B
27	4GW23EC029	—	—	—		
28	4GW23EC030	3	3	3	The basic concept is necessary but we not to learn to much it good learn	Bhoomika
29	4GW23EC031	—	—	—		
30	4GW23EC032	3	3	3	There was shortage of components sessions were good	B Bankar
31	4GW23EC033	3	3	3	Good	Bhuvan
32	4GW23EC034	3	2	3	Good	[illegible]
33	4GW23EC035	3	3	3	The experience was good, but could've been better with interaction	[illegible]
34	4GW23EC036	3	3	3	We expect more components in further next workshops	Deekshitha
35	4GW23EC037	3	3	3	The workshop was good	Dhanushree.H.N
36	4GW23EC039	3	3	3	we expect more component & workshop was good	Dhruthi G
37	4GW23EC040	3	3	3	useful Session	[illegible]
38	4GW23EC041	3	3	3	we except sufficient components for upcoming sessions	[illegible]
39	4GW23EC042	3	3	3	we expect more components other than its very useful.	Divya.A

DEPARTMENT C

	4GW23EC043	3	3	3	The session was good but could have been more interactive	Dr. Divya
41	4GW23EC044	3	3	3	The session was good but could have been more interactive	Divya M.
42	4GW23EC045	3	3	3	It was helpful but would love real application project at end	Pranitha
43	4GW23EC046	3	3	3	It was a very helpful session for basics	[illegible]
44	4GW23EC047	3	2.	3	The session was very helpful	[illegible]
45	4GW23EC048	3	3	3	Very helpful session.	Gaana
46	4GW23EC049	3	3	3	Informative session	[illegible]
47	4GW23EC050	3	3	3	It was Informative	Hamsya D Almida
48	4GW23EC051	3	3	3	We expect more compone -nts in further workshop	Harshitha.G
49	4GW23EC052	3	3	3	Useful session	[illegible]
50	4GW23EC053	3	3	3	it was informative	Harshitha.M
51	4GW23EC054	3	3	3	Informative session, overall the workshop was good & effective	Harshitha S
52	4GW23EC055	3	2.	2.	We Expect more components in further workshop	Hemanalini.V
53	4GW23EC056	3	3	3	useful	Jeetha
54	4GW23EC057	3	3	3	We need more hands on session with more components	Ishwara.D. Kavitha
55	4GW23EC058	3	3	3	we expect more components in upcoming workshop	Jahnavi K
56	4GW23EC059	3	3	3	Good Session	K. Deepashree
57	4GW23EC060	3	3	3	very good session	Kanchana
58	4GW23EC061	3	3	3	Good experience	[illegible]
59	4GW23EC062	3	3	3	Informative session	Keerthi
60	4GW23EC063	3	3	3	very informative and good communication.	Keerthana G
61	4GW24EC402	3	3	3	overall workshop was good.	Ankitha
62	4GW24EC406	3	3	3	we expect more components in upcoming workshop	Manjula
63	4GW24EC409	3	3	3	Overall workshop was good	Manuchar BR
64	4GW24EC411	3	3	3	Good Session	pavithra G
65	4GW24EC415	3	3	3	workshop was Good	Sinchana SA
	Average	2.95	2.90	2.95		**Observation**

>70%-2				Observation	
>60%-1				The average feedback from the students reflect that the event is highly mapped to a, b & g. It will be helpful for Capstone projects.	
<80%-0					

1-Silght **2-Moderate** **3-High**

Event Coordinator

NBA Coordinator

HOD,ECE

PAC Members

1. Dr. Padmashree. S
2. Dr. Jayanth J
3. Dr. Sreenivas Rao M. V
4. Dr. Manjula G
5. Dr. Sushma S. J