DEPARTMENT OF BIOMEDICAL ENGINEERING
&
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

PROGRAM REPORT
for
SMARTBOTS 360 : A DEEP DIVE INTO EMBEDDED SYSTEM AND ROBOTICS

21st July 2025

The Department of Electronics and Communication Engineering (ECE), through its **Centre of Excellence in Robotics & Embedded Systems**, collaborated with **e-Yantra – IIT Bombay** to organize a one-day workshop titled **"SmarBots 360 : A Deep Dive into Embedded System and Robotics"** on **21st July 2025**. The event aimed to bridge theoretical knowledge with practical applications in robotics, IoT, and embedded systems, fostering innovation among students, faculty, and industry professionals. The workshop featured **Mr. S. Karan Barola**, Head of Technical Services at Barola Technologies, as the keynote speaker and resource person.

About the Event

The one day session was handled by resource speaker **"Mr.S.Karan Barola"**, Head - Technical Services at Barola Technologies, an eminent personality in the field of emerging technologies. The session aimed to provide a comprehensive overview of the latest trends and advancements in technology and their implications for various industries. There are more than 40 participants/students from [ECE & BME] dept have participated in the event and the entire event was hosted and coordinated by **Mr.V.Prabhakaran, AP (G-II), BME**.

Objective of the Event

➢ To introduce participants to advanced concepts in Embedded Systems and Robotics.
➢ To demonstrate real-time applications of robotics in various domains such as IoT, AI, and industrial automation.
➢ To provide hands-on experience in programming and hardware interfacing for embedded systems.
➢ To create a platform for interaction between students, faculty, and industry experts, promoting knowledge exchange and networking.

Event Brochure

The event was initiated with a warm welcome address by **"Dr.R.Mohana Priya, Associate Professor and HOD Incharge, ECE & BME - AVIT".**

Welcome Address by Dr.R.Mohana Priya, Associate Professor and HOD Incharge, ECE & BME - AVIT

The session was stated after a brief introduction about the guest speaker by **"Mr.V.Prabhakaran, Assistant Professor (G-II), BME**

Chief Guest Introduction by Mr.V.Prabhakaran, Assistant Professor (G-II), BME

The workshop featured Mr. S. Karan Barola, Head of Technical Services at Barola Technologies, as the Keynote Speaker and Resource Person. Mr. Barola is a renowned expert in robotics, IoT, and embedded technologies, with vast experience in implementing automation solutions and conducting technical training sessions across the country

Key Topics Covered

➢ Fundamentals of Embedded System Architecture.

➢ Design and development of autonomous robotic systems.

➢ IoT-based control mechanisms and real-world applications.

➢ Integration of sensors, actuators, and microcontrollers in robotics.

➢ Hands-on practice on robotics kits and microcontroller programming (e.g., Arduino, ARM Cortex boards).

Demonstration of AI and automation concepts in robotics.

In the post-lunch session, participants engaged in hands-on activities guided by the resource person. This included:
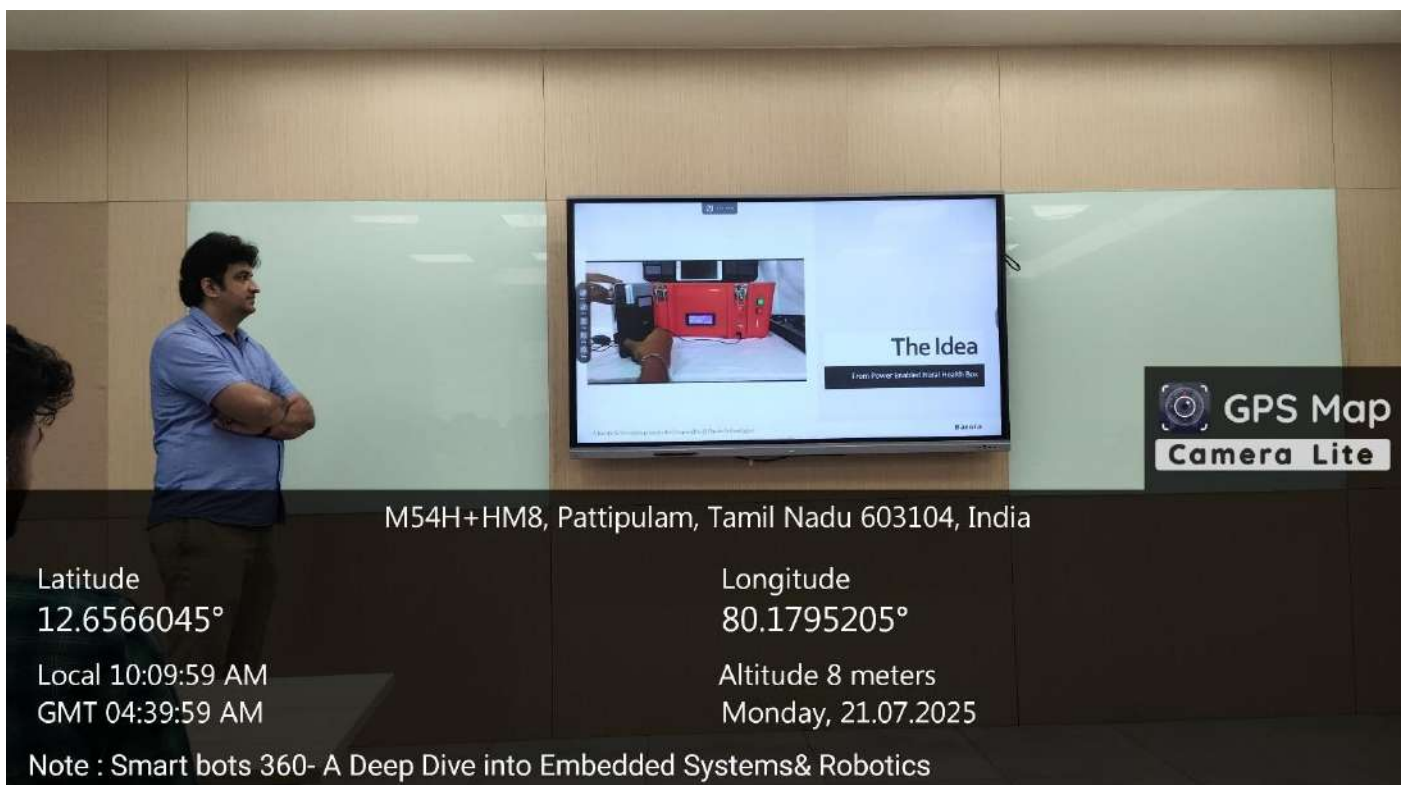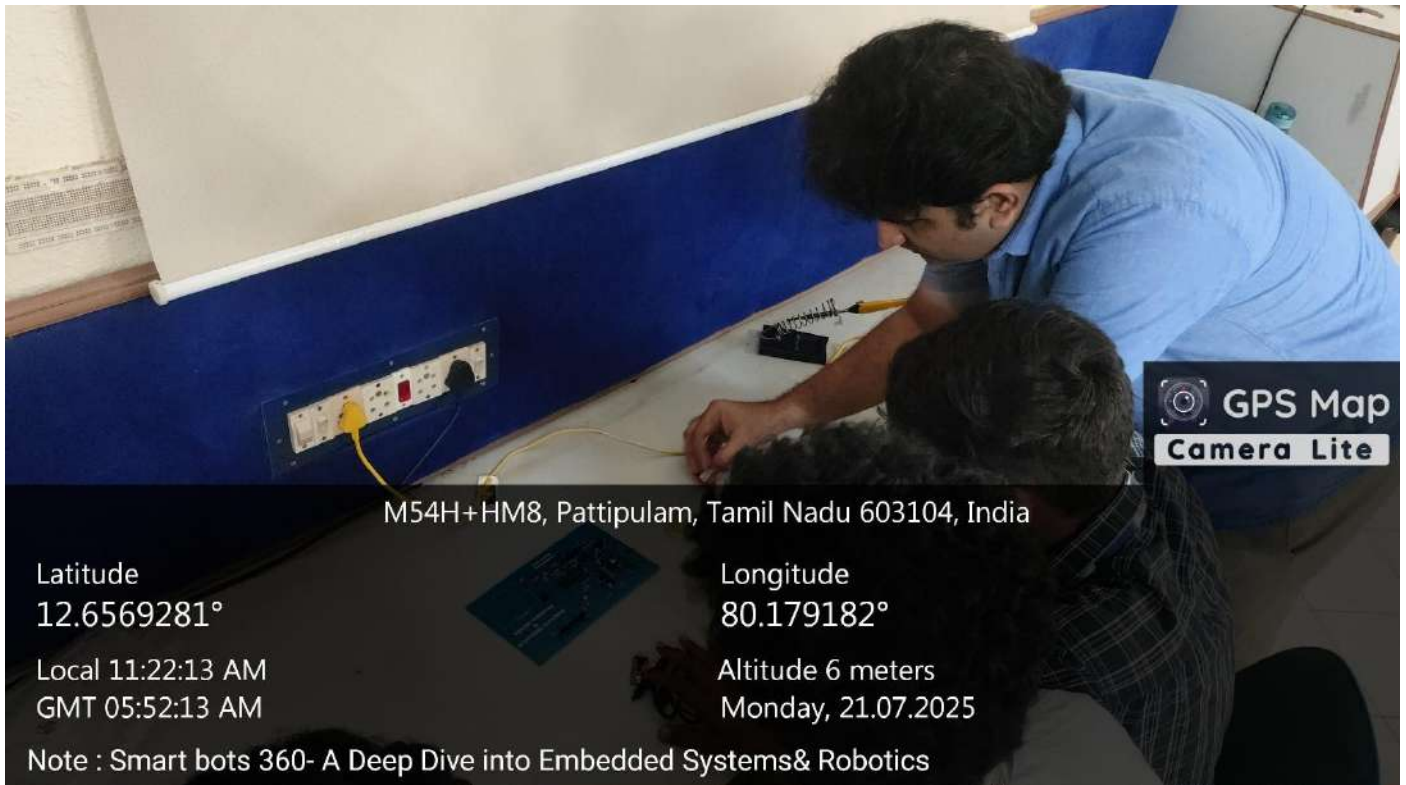
• Programming microcontrollers for sensor interfacing

• Building simple robot models using available kits

• Real-time data monitoring using cloud platforms

• Demonstration of smart IoT projects developed by Barola Technologies

After the presentation and project demonstration, an interactive Q&A session was held, allowing participants/students to engage directly with Mr. Barola. The questions ranged from technical details of the discussed technologies to their broader societal impacts. Mr. Barola's detailed responses provided additional clarity and insights for the participants/students

Finally, the event concluded with a vote of thanks by the event coordinator, expressing gratitude to Mr. Barola for his comprehensive and enlightening session. Participants/Students are left with a deeper understanding of the emerging technologies and their potential applications.

Event Gallery

M54H+HM8, Pattipulam, Tamil Nadu 603104, India

Latitude
12.6569281°

Longitude
80.179182°

Local 11:22:13 AM
GMT 05:52:13 AM

Altitude 6 meters
Monday, 21.07.2025

Note : Smart bots 360- A Deep Dive into Embedded Systems& Robotics

M54H+HM8, Pattipulam, Tamil Nadu 603104, India

Latitude
12.6566045°

Longitude
80.1795205°

Local 10:09:59 AM
GMT 04:39:59 AM

Altitude 8 meters
Monday, 21.07.2025

Note : Smart bots 360- A Deep Dive into Embedded Systems& Robotics

M54H+HM8, Pattipulam, Tamil Nadu 603104, India

Latitude
12.6569271°

Longitude
80.1791797°

Local 11:21:31 AM
GMT 05:51:31 AM

Altitude 6 meters
Monday, 21.07.2025

Note : Smart bots 360- A Deep Dive into Embedded Systems& Robotics

M54H+HM8, Pattipulam, Tamil Nadu 603104, India

Latitude
12.6569221°

Longitude
80.1791788°

Local 11:14:36 AM
GMT 05:44:36 AM

Altitude 6 meters
Monday, 21.07.2025

Note : Smart bots 360- A Deep Dive into Embedded Systems& Robotics

M54H+HM8, Pattipulam, Tamil Nadu 603104, India

Latitude
12.6569325°

Longitude
80.179185°

Local 11:22:28 AM
GMT 05:52:28 AM

Altitude 6 meters
Monday, 21.07.2025

Note : Smart bots 360- A Deep Dive into Embedded Systems& Robotics

M54H+HM8, Pattipulam, Tamil Nadu 603104, India

Latitude
12.6569325°

Longitude
80.179185°

Local 11:22:36 AM
GMT 05:52:36 AM

Altitude 6 meters
Monday, 21.07.2025

Note : Smart bots 360- A Deep Dive into Embedded Systems& Robotics

M54H+HM8, Pattipulam, Tamil Nadu 603104, India

Latitude
12.6569214°

Longitude
80.1791984°

Local 11:30:23 AM
GMT 06:00:23 AM

Altitude 6 meters
Monday, 21.07.2025

Note : Smart bots 360- A Deep Dive into Embedded Systems& Robotics

M54H+HM8, Pattipulam, Tamil Nadu 603104, India

Latitude
12.6569323°

Longitude
80.179181°

Local 11:40:05 AM
GMT 06:10:05 AM

Altitude 6 meters
Monday, 21.07.2025

Note : Smart bots 360- A Deep Dive into Embedded Systems& Robotics

Conclusion

The workshop on "Embedded Intelligence - Building the Future with Robotics & IoT" provided valuable insights into cutting-edge technologies and fostered practical skills in embedded systems and IoT. The interactive sessions and expert guidance by Mr. S. Karan Barola greatly benefited the participants. The event successfully bridged academic knowledge with industry relevance, encouraging innovation and inspiring students to pursue advanced projects and competitions in robotics and intelligent systems.

STUDENTS PARTICIPANT LIST

S.NO	REGISTER NUMBER	STUDENT NAME	DEPARTMENT
1	3472110503	RAJA KUMAR	ECE
2	3472220501	BALAJI K	ECE
3	3472220502	DEVENDIRAN T	ECE
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6	3472253501	CHALLA CHARAN CHAITANYA	ECE
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8	3472355504	THUMMALA DIVAKAR REDDY	ECE
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10	3532110502	AMIT KUMAR	BME
11	3532110503	BIPIN KUMAR	BME
12	3532110504	DILIP KUMAR	BME
13	3532110506	DIVYA BHARATI	BME
14	3532110507	GUNASEELAN E	BME
15	3532110508	JITU KUMAR	BME
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17	3532110510	MD AFJAL ALAM	BME
18	3532110512	MD AMIR SUBHANI	BME
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21	3532110516	RANJAN KUMAR JAISWAL	BME
22	3532110517	RITHIGA S	BME
23	3532110518	SHIKHA SONI	BME
24	3532110519	SHYAM BIHARI	BME
25	3532110520	STUTI KUMARI	BME
26	3532110521	SUGASINI L	BME
27	3532110525	VISWANATHAN R	BME
28	3532110526	YOKESHWAR V	BME
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30	3532210501	ABIRAMI D	BME
31	3532210502	CHHOTU KUMAR	BME
32	3532210503	DHIRAJ KUMAR	BME
33	3532210504	DIVYA BHARTI	BME
34	3532210505	ELUMALAI M	BME
35	3532210506	GOTHANDARAMAN D	BME
36	3532210507	HIRA PARVEEN S	BME
37	3532210508	LAXMAN RAY	BME
38	3532210509	NANDHINI A	BME

39	3532210511	PREMLATA KUMARI	BME
40	3532210512	RAJAGANAPATHI R	BME
41	3532210514	SANJAY T	BME
42	3532210517	SIVABALAN S	BME
43	3532210518	SONU KUMAR	BME
44	3532210519	VELMURUGAN M	BME
45	3532210520	VINJAMURU LAKSHMI	BME
46	3532113505	DILLI AKASH G	BME

FACULTY PARTICIPANT LIST

S.NO	NAME OF THE FACULTY	DESIGNATION	DEPARTMENT
1	Dr.R.Mohana Priya	Associate Professor	ECE
2	Dr.Vijay	Assistant Professor (G-II)	ECE
3	Mr.Rajat Kumar	Assistant Professor (G-II)	ECE
4	Mr.V.Prabhakaran	Assistant Professor (G-II)	BME
5	Mr.R.Karthikeyan	Assistant Professor (G-II)	ECE
6	Dr.Keerthika	Assistant Professor (G-II)	ECE
7	Dr.Prasad	Associate Professor	BME