

**DEPARTMENT OF BIOMEDICAL ENGINEERING
&
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**PROGRAM REPORT
for
EMBEDDED INTELLIGENCE - BUILDING THE FUTURE WITH ROBOTICS & IOT**

06th March 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 **“Embedded Intelligence - Building the Future with Robotics & IoT”** on **06th March 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

- Introduce participants to embedded systems, robotics, and IoT as transformative technologies.
- Demonstrate real-world applications through case studies and hands-on activities.
- Encourage interdisciplinary collaboration and problem-solving.
- Inspire participants to explore innovation and entrepreneurship in emerging technologies.



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Event Brochure



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Vinayaka Mission's Chennai Campus

DIAMOND

CS I-GAUGE
INDIAN COLLEGE RATING

Warmly welcome you all for the workshop on

Embedded Intelligence Building the Future with Robotics & IoT

Resource Person

Mr. S. KARAN BAROLA

Head – Technical Services,
Barola Technologies



06th March 2025
09:30 AM to 03:30 PM



Digital Class Room
TBT 106



IIT Bombay
yantra
Engineering a better tomorrow

Organized by
Department of Electronics and Communication Engineering
Centre of Excellence in Robotics & Embedded Systems

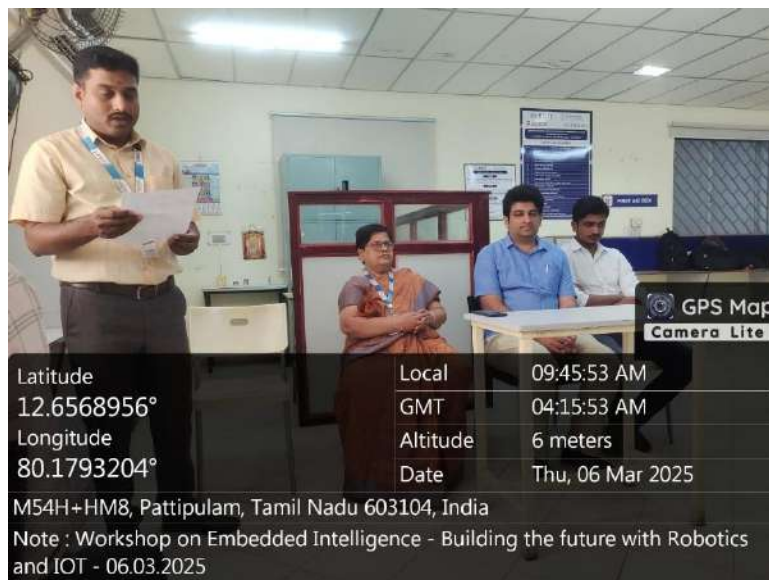
Start of the Event | 06th March 2025 | 09:30 am

The event was initiated with a warm welcome address by “**Dr.L.K.Hema, Professor and Head, ECE & BME - AVIT**”.



Welcome Address by Dr.L.K.Hema, Professor & Head – ECE &BME

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



Mr. S. Karan Barola began with an insightful presentation on the fundamentals of embedded systems and the evolution of intelligent machines. He explained the architecture of IoT systems, sensors and actuators, microcontrollers (like Arduino and ESP32), and communication protocols used in modern robotics.

Key Topics Covered

- Introduction to Embedded Systems and IoT
- Role of AI in Embedded Intelligence
- Robotics Platforms and IoT Applications
- Sensor Integration and Data Acquisition
- Industry Use Cases and Live Demonstrations

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.



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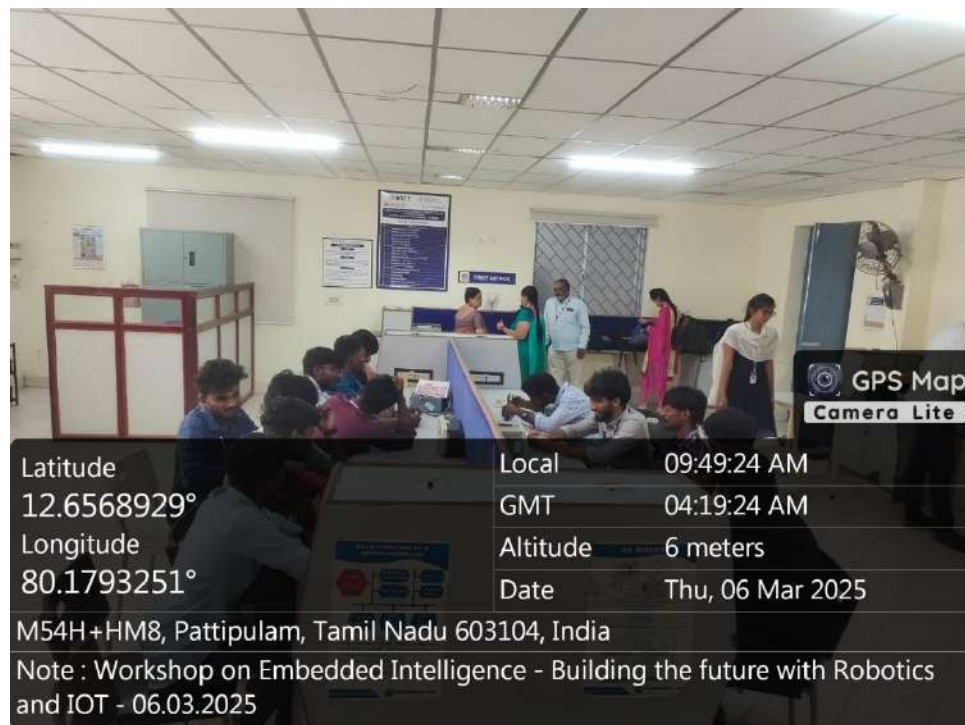
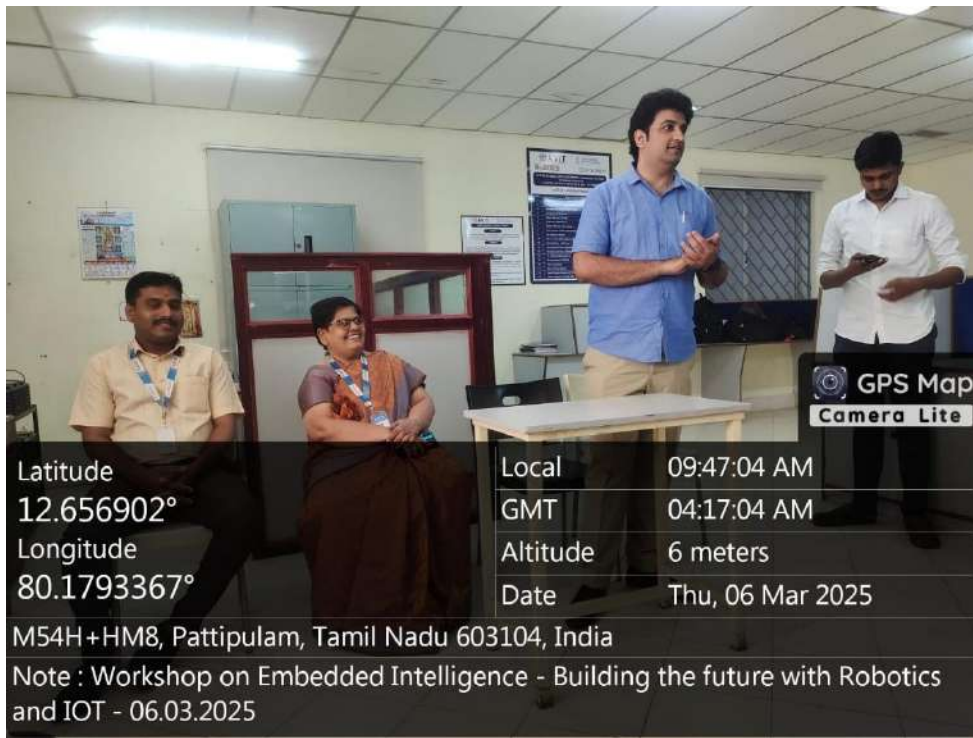


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Event Gallery





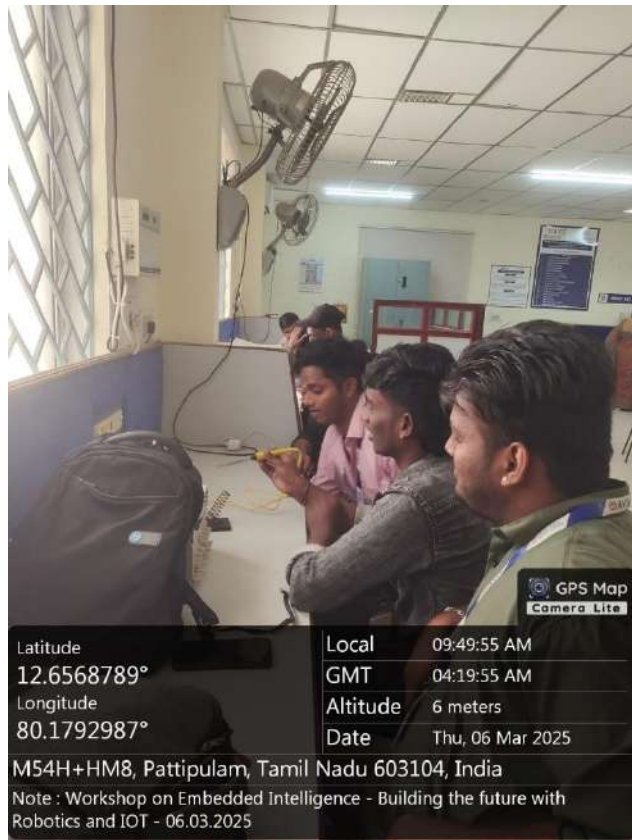
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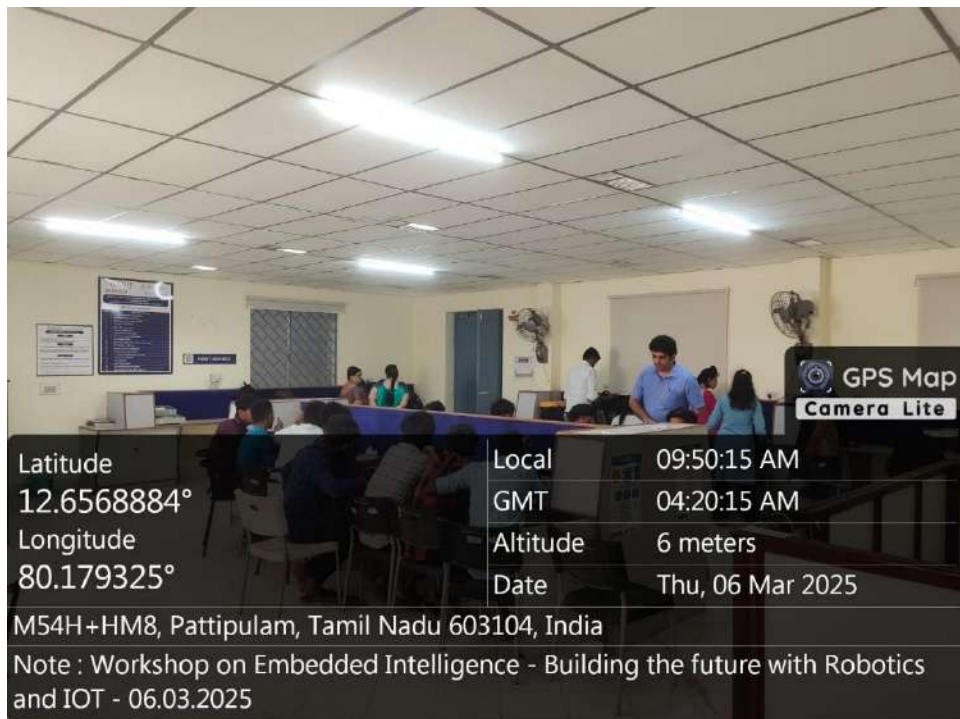
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Conclusion

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.



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STUDENTS PARTICIPANT LIST

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3	3472220502	DEVENDIRAN T	ECE
4	3472220503	DILLIBABU T	ECE
5	3472220504	SUNDHARA VATHANAN M	ECE
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8	3472355504	THUMMALA DIVAKAR REDDY	ECE
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14	3532110507	GUNASEELAN E	BME
15	3532110508	JITU KUMAR	BME
16	3532110509	MANOJ SAH	BME
17	3532110510	MD AFJAL ALAM	BME
18	3532110512	MD AMIR SUBHANI	BME
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23	3532110518	SHIKHA SONI	BME
24	3532110519	SHYAM BIHARI	BME
25	3532110520	STUTI KUMARI	BME
26	3532110521	SUGASINI L	BME
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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



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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.L.K.Hema	Professor & Head	ECE & BME
2	Dr.R.Mohana Priya	Associate Professor	ECE
3	Dr.Vijay	Assistant Professor (G-II)	ECE
4	Mr.Rajat Kumar	Assistant Professor (G-II)	ECE
5	Mr.V.Prabhakaran	Assistant Professor (G-II)	BME
6	Mr.R.Karthikeyan	Assistant Professor (G-II)	ECE
7	Dr.Keerthika	Assistant Professor (G-II)	ECE
8	Dr.Prasad	Associate Professor	BME