

Date: 27/02/2026

REPORT ON “HANDS-ON WORKSHOP: SMART SYSTEMS WITH ARDUINO”

Name of the Program:	Hands-on Workshop: “Smart Systems with Arduino”		Program Dates & Timings:		27/02/2026 9:00 AM to 4:00 PM	
Name & Details of the Resource Person:	Mrs. Kanmani, Assistant Professor, Department of CSE					
Organized by	CSE(ICB) Dept		In Association with (clubs/Dept.)		IoT & Cybersecurity Club	
Number of Participants	Students	49	Faculty	-	External participants	Nil
Program Outcome (PO) Mapping	1,2,3,4,5,9,10,123					
Coordinators	Mrs. Pragathi Hegde					
Expenditure	Nil		Social Media Link			

About the Program:

The IoT & Cybersecurity Club of the Department of CSE–ICB conducted its first technical activity, a hands-on workshop titled “**Smart Systems with Arduino.**” The session was led by Mrs. Kanmani, Assistant Professor, Department of CSE.

This workshop marked the official beginning of the club’s initiatives aimed at promoting practical learning and industry-relevant technical skills among students. The session was designed to be highly interactive and implementation-oriented, focusing on real-time development rather than purely theoretical discussion.

Students actively participated throughout the program and engaged in circuit building, programming, testing, and debugging of Arduino-based smart systems.

Objectives:

The key objectives of the workshop were:

- To introduce students to the fundamentals of **Arduino and IoT systems**

- To provide hands-on experience in interfacing sensors and components
- To bridge the gap between theoretical knowledge and practical implementation
- To encourage innovation and technical problem-solving
- To enhance teamwork and technical presentation skills
- To build confidence in developing working prototypes within a limited time

Outcomes of the program:

The workshop achieved significant learning outcomes:

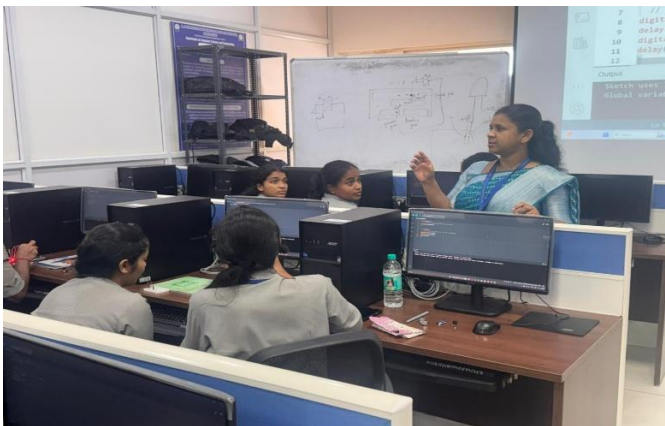
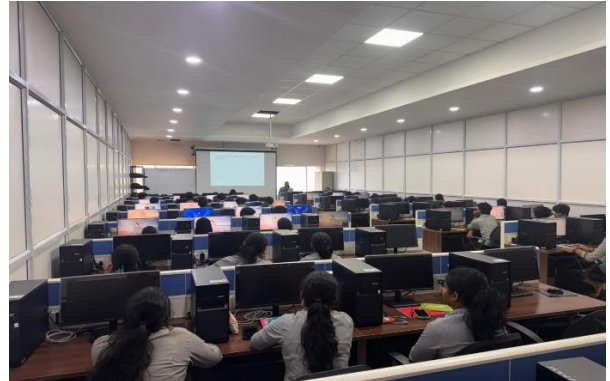
- Students gained a clear understanding of Arduino programming and hardware interfacing.
- Participants were able to successfully design and develop working smart system projects on the same day.
- Students demonstrated the ability to assemble circuits, write code, troubleshoot errors, and implement automation concepts.
- Teams presented their developed projects confidently, explaining the working principles and real-world applications.
- The session improved students' hands-on skills, analytical thinking, and collaborative learning abilities.
- The workshop created enthusiasm and motivation among students to explore IoT and emerging technologies further.

The fact that students were able to conceptualize, build, and present functional projects within a single day highlights the effectiveness of the hands-on training methodology adopted during the workshop.

Articulation Matrix:

Course Outcomes	Program Outcomes											
	1	2	3	4	5	6	7	8	9	10	11	12
1	3				3							
2	2	2	3		3							
3	2	3	2	2	3							
4									2	3		
5		2							3			
6					2							3
Average	1.17	1.17	0.83	0.33	2.33				0.83	0.50		0.50

Photos:



Conclusion

The workshop successfully fulfilled its objectives and set a strong foundation for the future activities of the IoT & Cybersecurity Club. As the first initiative of the club, it created a positive impact and demonstrated the importance of experiential learning in technical education.

The department looks forward to organizing many more such practical and industry-oriented programs to continue fostering innovation and skill development among students.

Coordinator

Pragathi Hegde

HOD

Dean Academics

Principal

For Information: Vice President, LMET

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