JSS Academy of Technical Education, Bengaluru
Department of Physics

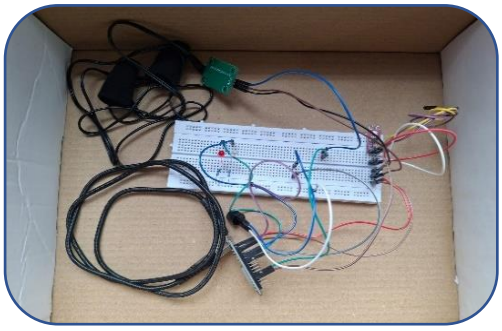
Skill Lab Report (March 2025-June 2025)

The Department of Physics successfully conducted a Skill Lab for the even-semester students of the 2024–25 Academic Year. Students from various branches, including Computer Science and Engineering (A, B, and C), Information Science and Engineering (A, B, and C), and Artificial Intelligence and Machine Learning (A and B), actively participated in the event. Under the expert guidance of the department's faculty members, a total of 32 innovative projects were developed. These projects showcased interdisciplinary applications and covered a broad spectrum of domains such as Internet of Things (IoT), communication systems, smart technology, optics**,** and energy storage. The titles of the student projects are as follows:

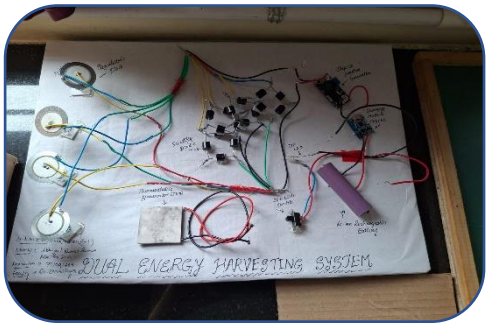
Sl.No.	Title	Branch	Faculty
1	AI Chalkboard/Blackboard Wiper	AIML "C1"	Dr. Shashidhar R
2	UV and Skin Hydration Detector		
3	Dual Energy Harvesting System		
4	Camera Integrated PPV Drone System		
5	RFID based Attendance System	ISE "B1"	Dr. Shashidhar R
6	Smart Agricultural Field Control System		
7	IOT-based Health Monitoring System		
8	Mini Writing and Drawing Machine		
9	Basic Tesla Coil Model	AIML "C2"	Dr. Abhilasha Singh
10	Automatic Soil Moisture Detector		
11	Clap Activated Bulb		
12	Simple Pendulum Wave Generator		
13	Robotic Arm	ISE "B2"	Dr. Abhilasha Singh
14	Automated Tap using IR Sensor		
15	IR Sensor based Turn Counter		
16	Solar Tracking System-Single Axis		
17	Morse Code Reader	CSE "A1"	Dr. Sushma KC
18	Laser Security System		
19	Smart Home Technology		

20	LDR-based Automatic Illuminating Control with Solar Power		Dr. Sushma KC
21	Real-Time Health Monitoring using Arduino	ISE “B3”	Dr. Sushma KC
22	Automatic Reverse Braking System using IR sensor and relay module		
23	Hydroelectric Powerplant		
24	Wireless EV Charging: The future of powering EV’s		
25	Tracking Solar Panel	CSE “A3”	Mr. Mohanakumara LB
26	Wireless Transmission System		
27	Auto clean Boat- Arduino based smart vacuum system		
28	Smart Classroom Lighting System Using Motion Detection		
29	Smart Medicine Dispenser	CSE “A2”	Mr. Mohanakumara LB
30	Vertical axis wind turbine		
31	Advanced voice transmission through laser		
32	Hand gesture control advanced air mouse		

AI Chalkboard/Blackboard Wiper

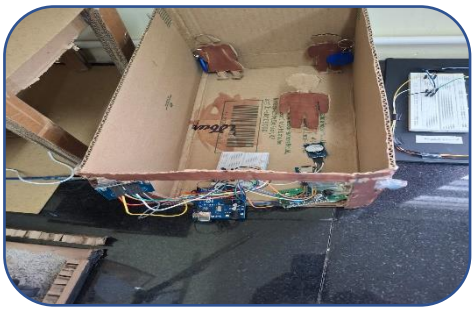


UV and Skin Hydration Detector

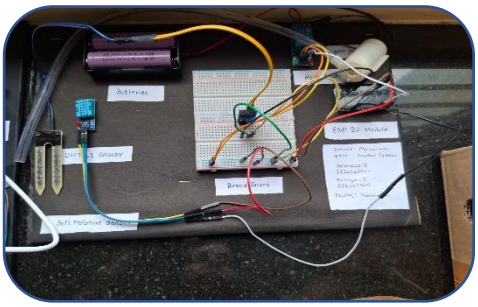


Dual Energy Harvesting System

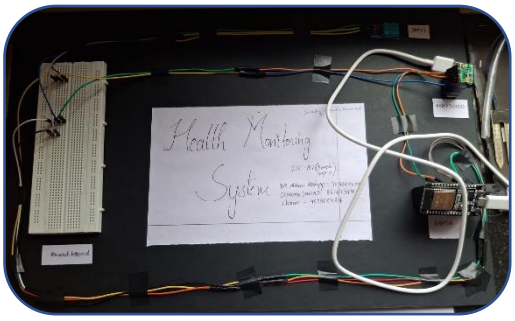
Camera Integrated PPV Drone System



RFID based Attendance System



Smart Agricultural Field Control



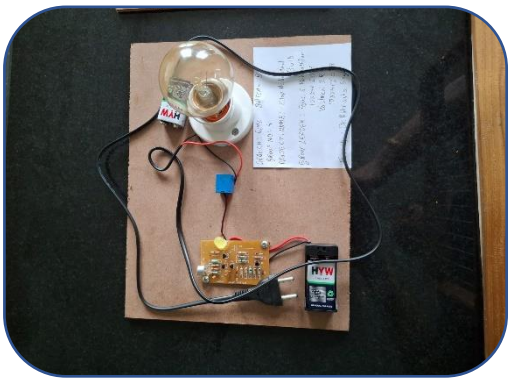
IOT-based Health Monitoring System

Mini Writing and Drawing Machine

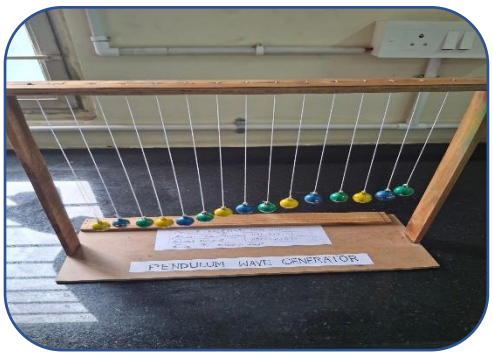
Faculty in Charge: Dr. Shashidhar R

Basic Tesla Coil Model

Automatic Soil Moisture Detector

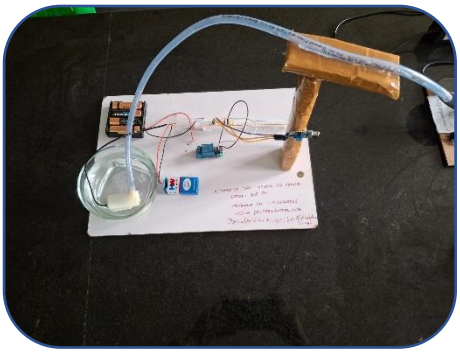


Clap Activated Bulb



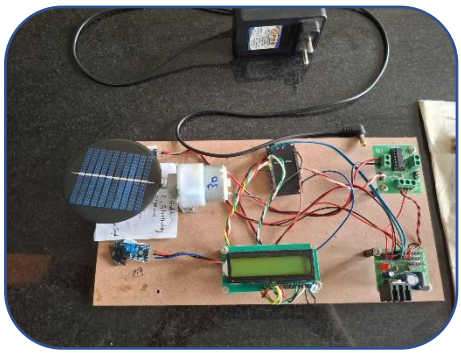
Simple Pendulum Wave Generator

Robotic Arm



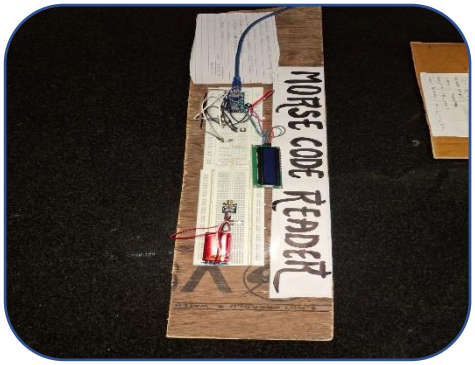
Automated Tap using IR Sensor

IR Sensor based Turn Counter

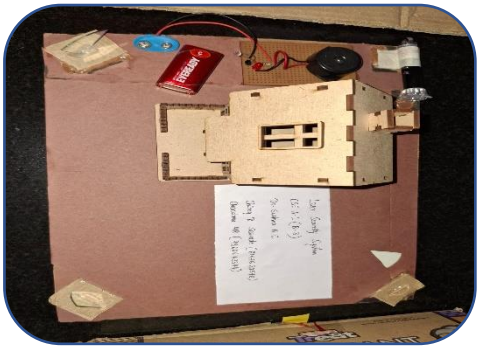


Solar Tracking System-Single Axis

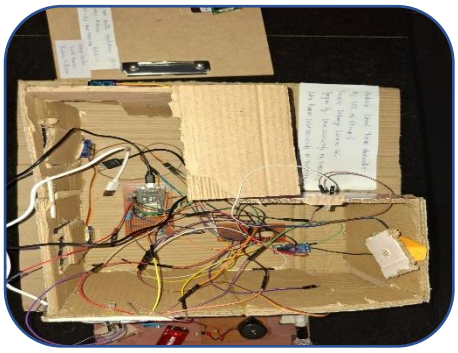
Faculty in Charge: Dr. Abhilasha Singh



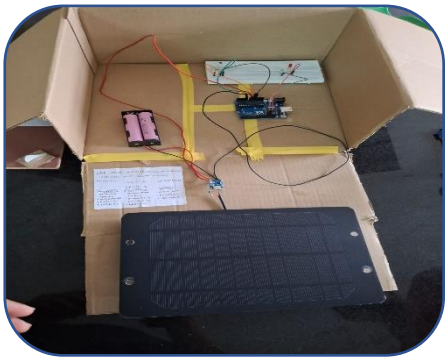
Morse Code Reader



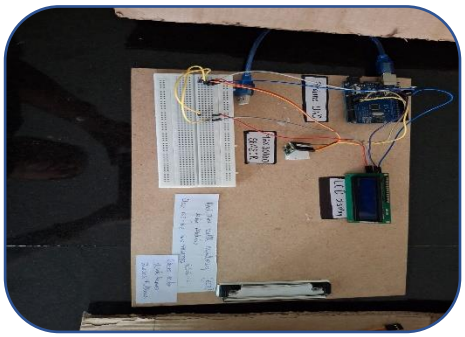
Laser Security System



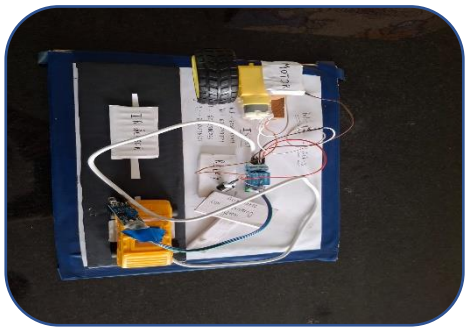
Smart Home Technology



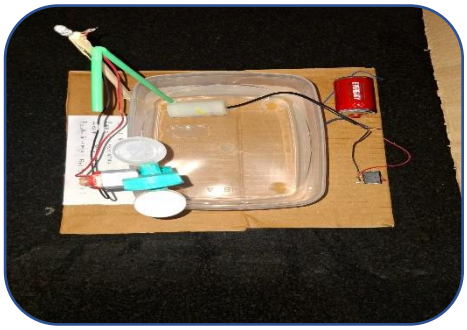
LDR-based Automatic Illuminating Control with Solar Power



Real-Time Health Monitoring using Arduino



Automatic Reverse Braking System using IR sensor and relay module

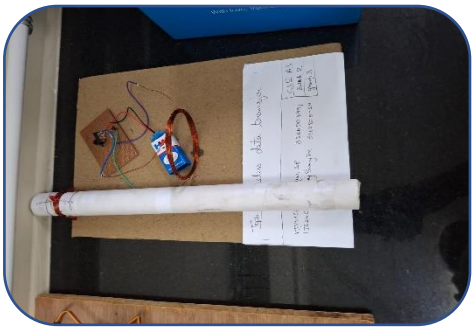


Hydroelectric Powerplant

Wireless EV Charging: The future of powering EV's

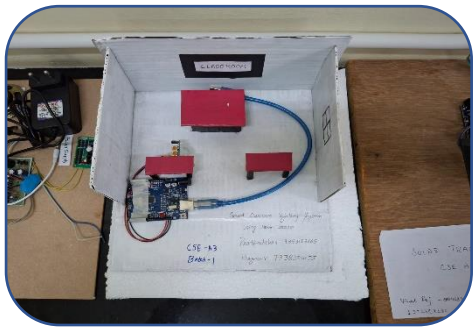
Faculty in Charge: Dr. Sushma KC

Tracking Solar Panel



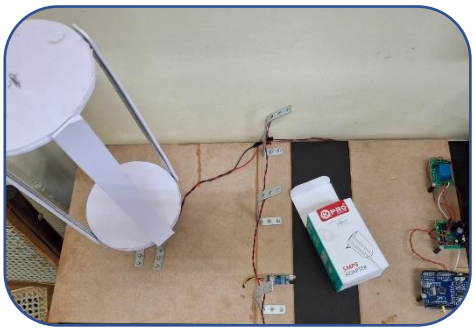
Wireless Transmission System

Auto clean Boat- Arduino based smart vacuum system

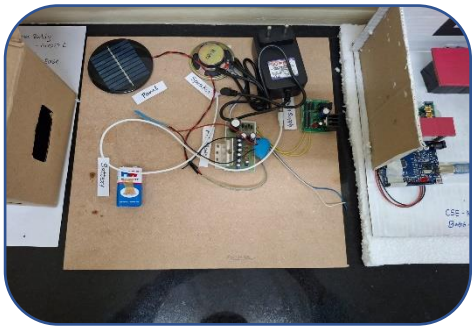


Smart Classroom Lighting System Using Motion Detection

Smart Medicine Dispenser



Vertical axis wind turbine



Advanced voice transmission through laser

Hand gesture control advanced air mouse

Faculty in Charge: Mr. Mohanakumara LB

Skill Lab Incharge

Dr. Abhilasha Singh

HOD Physics

Dr. Shashidhar R