SCHOOL OF ELECTRICAL AND COMMUNICATION
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Laboratory Name: Internet of Things   **Venue:** 1401
Laboratory In-Charge: Dr. J. Arun Kumar   **Qualification:** M.E., Ph.D.,

TECHNICAL MANPOWER

Laboratory Assistant: Mr. Purushothaman K
Qualification: BE(ECE)

DESCRIPTION ABOUT THE LABORATORY

The Internet of Things Laboratory is equipped with advanced IoT development kits that enable the study of sensor interfacing, wireless communication, and real-time data acquisition. Students gain practical experience in connecting sensors and actuators using microcontrollers and embedded platforms such as Raspberry Pi, Arduino and NodeMCU.

OBJECTIVES

➢ To understand IoT architecture and components such as sensors, microcontrollers, communication protocols, and cloud platforms.
➢ To develop and implement IoT-based applications for real-time data collection, monitoring, and control.

LABORATORY SPACE AND STUDENT ALLOCATION

Area of the Laboratory	: 113.37 sq.m
No. of students per session	: 30
Batch Size	: 4 students / batch
Weekly Utilization Status	: 30 hours / week

COST OF THE LABORATORY

Total cost of equipment	: Rs. 7,84,025
Total cost of consumables	: Rs. 3,54,620
Overall cost of the Laboratory	: Rs. 11,38,645

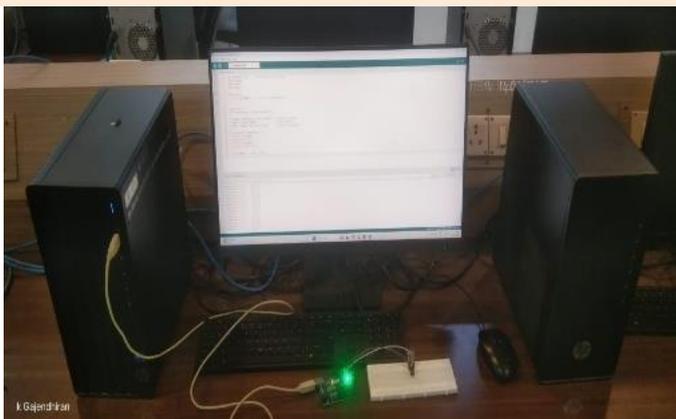**IoT Electronic Hobby Kit**

ADDITIONAL FACILITY

Equipment Name
GPS Flight Controller
Cost of the Equipment
Rs. 56,050.00
Date of Purchase
11.11.2024

Arducopter Flight Controller with GPS

LIST OF MAJOR EQUIPMENT

Date of Purchase	Product Name	Qty	Unit Price (Rs.)	GST @18% (Rs.)	Grand Total (Rs.)
12.05.2023	Bevywise IoT Simulator & IoT Platform	1	70,000.00	12,600.00	82,600.00
30.08.2023	Official Raspberry Pi 4 Desktop Kit – 8GB RAM	5	66,000.00 (Each Rs.13,200-)	11,880.00	77,880.00
06.03.2024	Raspberry Pi 5V/3W USB-C Power Supply for Raspberry Pi 4 Model B	15	1,02,000.00 (Each Rs.6,800-)	18,360.00	1,20,360.00
06.03.2024	Raspberry Pi 4 Model B 4GB RAM Microcontroller Board for IoT Electronic Hobby Kit	6	84,000.00 (Each Rs.14,000-)	15,120.00	99,120.00
11.11.2024	Arduino Uno R3-Development board with USB cable and Adaptor	15	12,750.00 (Each Rs.850-)	2,295.00	15,045.00
11.11.2024	Raspberry Pi 4 – 4GB with required USB cable and power adaptor	15	1,04,250.00 (Each Rs.6,950-)	18,765.00	1,23,015.00
11.11.2024	Arducopter Flight Controller with GPS	10	47,500.00 (Each Rs.4,750-)	8,550.00	56,050.00
Total Purchase Amount (Rs.)					**5,74,070.00**

Arduino Uno R3 Development Board

Raspberry Pi 4 – 8GB