



INSTITUTION'S INNOVATION COUNCIL (IIC)
SWARNANDHRA
COLLEGE OF ENGINEERING AND TECHNOLOGY
Seetharampuram, Narsapur.
Report of

Workshop on Prototype/Validation and IOT Start-up Development

Collage	Swarnandhra Autonomous
Department	SCET -EEE

Academic Year	2026-2027
Program driven by	IIC Activity
Quarter	IV
Activity Name	Session on Innovation / Prototype Validation & “Value Proposition Fit & Business Fit” – IoT Applications
Programme Type	Level 2 / Level 3/ Exposure visit
Programme Theme	Q2 –Idea/innovation validation and concept development
Program Stats Date	28 -8-2026
Program Ending Date	28-8-2026
Number of Students Participants	68
Number of Faculty Participants	1. Dr. M. Surendhra 2. Mr. M. Rajayya
Number of Expert Participants, If Any	1
Resource Person Details	Mr.B.subrahmanyam, Assistant Professor,EEE,SCET
Expenditure, If Any	---
Mode of Delivery	offline
Objectives	Understand Innovation Fundamentals, Explore IOT Prototype Development and Validation, Bridge Innovation and Entrepreneurship.

Benefits in terms of learning/skill/knowledge development	Learning Benefits, Skill Development, Knowledge Development
Program Coordinator (S)	B.subrahmanyam

Report:

Swarnandhra college of Engineering, department of Electrical and Electronics Engineering in association with IIC organised a one-day Workshop on innovation /prototype validation Design and Development on August 28, 2025.

Introduction:

The Institution's Innovation Council organized a session on **“Innovation / Prototype Validation & Value Proposition Fit and Business Fit”** with a special focus on **Internet of Things (IoT) based applications**.

The session was designed to help students understand how an IoT idea can be transformed into a practical prototype and subsequently developed into a potential startup or market-oriented solution.

The activity provided an opportunity for students and faculty to discuss IoT innovations, prototype development, user requirements, market needs and business opportunities.

Workshop Objectives:

The major objectives of the activity were:

1. To create awareness about IoT-based innovation and prototype development.
2. To understand the importance of prototype validation and user requirements.
3. To identify suitable value propositions for IoT-based solutions.
4. To understand the process of converting an innovative IoT idea into a viable startup/business model.
5. To provide students with awareness about incubation, mentoring and entrepreneurship opportunities.

These objectives align with the prescribed IIC activity focus on idea validation, solution refinement and initial business-model development.

Benefits: Key Points Discussed

The following major points were discussed during the session:

- Importance of IoT in innovation and emerging technologies.
- Identification of real-world problems suitable for IoT solutions.
- Development of an IoT concept into a functional prototype.
- Importance of validating the prototype with potential users.
- Understanding user needs and market requirements.
- Identification of an appropriate value proposition.
- Evaluation of the technical feasibility and practical usefulness of an IoT solution.
- Understanding business and market fit.
- Basic steps involved in converting an IoT prototype into a startup.
- Opportunities for incubation, mentoring and entrepreneurship support.

Event Photos:

- Inauguration / Introduction of the IoT Innovation Session
- Resource Person's Presentation on IoT Innovation and Prototype Validation
- Student Interaction / Discussion on IoT Applications
- IoT-Based Prototype Demonstration

SWARNANDHRA COLLEGE OF ENGINEERING & TECHNOLOGY
(AUTONOMOUS)
ACCREDITED BY NAAC & NBA
APPROVED BY AICTE, NEW DELHI & PERMANENTLY AFFILIATED TO JNTU KAKINADA, ANDHRAPRADESH
SEETHARAMPURAM, NARSAPUR, WEST GODAVARI DISTRICT, ANDHRA PRADESH - 534280.

MoE's INNOVATION CELL (GOVERNMENT OF INDIA)
AICTE
G20 INDIA
NBA
In association with
INSTITUTION INNOVATION COUNCIL (IIC)

WORKSHOP ON INNOVATION / PROTOTYPE VALIDATION - CONVERTING INTO A START UP

DATE: **AUGUST 28, 2026** TIME: **10:00 A.M.** VENUE: **EEE IOT LAB**

IDEATE INNOVATE | VALIDATE YOUR IDEA | BUILD YOUR PROTOTYPE | TRANSFORM INTO A STARTUP

BE AN INNOVATOR BE A CHANGEMAKER!





Narsapur, Andhra Pradesh, India 🇮🇳

Cm95+842, Swarnandhra Of Engineering College Rd, Sitarampuram,
Seetharamapuram, Narsapur, Andhra Pradesh 534275, India

Lat 16.418731° Long 81.656909°

Friday, 28/08/2026 09:22 AM GMT +05:30



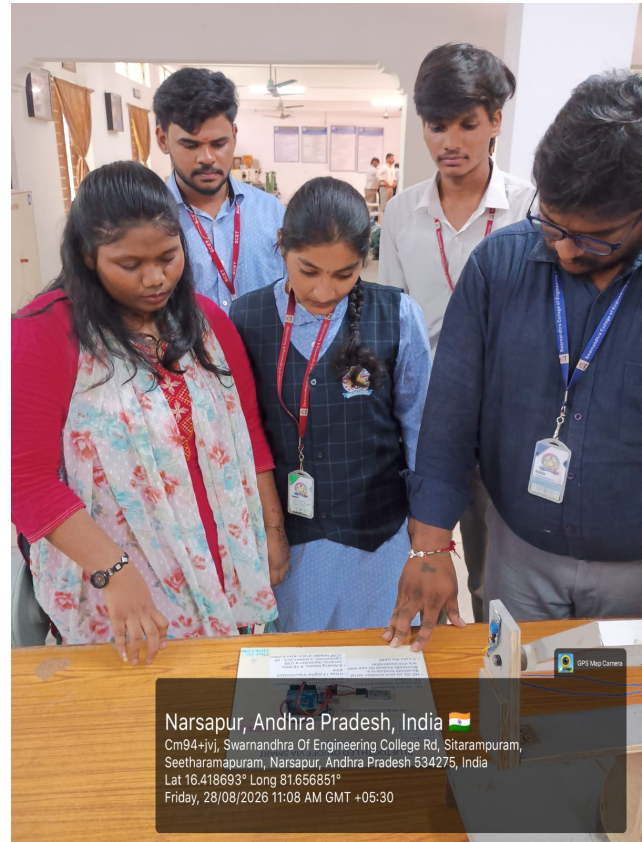
Narsapur, Andhra Pradesh, India 🇮🇳

Cm94+jvj, Swarnandhra Of Engineering College Rd, Sitarampuram,
Seetharamapuram, Narsapur, Andhra Pradesh 534275, India

Lat 16.418652° Long 81.656933°

Friday, 28/08/2026 11:12 AM GMT +05:30







Participants List:



Name of the Program: INNOVATION / PROTOTYPE VALIDATION

Resource person: B. Subrahmanyam, Assistant Professor, Dept. of EEE

Technical Support: V. Murali

Date: 28/08/2026

Organization: Swarnandhra College of Engineering and Technology

Coordinator: Mr. B. Subrahmanyam, Assistant Professor, Dept. of EEE

ATTENDANCE

Prototype No	S. No	Regd. No.	Name of the Faculty / Student	year /Branch	Signature
1	1	23A21A0210	D.V. Vijay	4th Year EEE	D.V. Vijay
	2	23A21A0208	D. SIVA	4th Year EEE	D. SIVA
	3	23A21A0203	B. Ganesh Manikanta	IV (EEE)	B. Ganesh
	4	23A21A0224	K. Tanu Sai	4 Year (EEE)	K. Tanu Sai
2	5	23A21A0223	K. pravalika	4 Year (EEE)	K. pravalika
	6	23A21A0211	D. Yamini	4 Year (EEE)	D. Yamini
	7	23A21A0215	G. Chandra Sekhar	4 Year (EEE)	G. Chandra Sekhar
	8	23A21A0219	I. Hanu Hanish	4 Year (EEE)	I. Hanu Hanish

3	9	23A21A0214	G. Sardhya Devi	4 Year (EEE)	G. Sardhya Devi
	10	23A21A0213	G. Geethanjali	4 Year (EEE)	G. Geethanjali
	11	23A21A0217	G. Usha Lakshmi Salini	4 Year (EEE)	G. U. L. Salini
	12	23A21A0233	N. Usha Sri	4 Year (EEE)	N. Usha Sri
4	13	23A21A0235	T. R. S. Manikanta Naidu	4 Year (EEE)	T. Manikanta
	14	23A21A0225	K. Satish	4 Year (EEE)	K. Satish
	15	23A21A0228	M. K. S. Nagendra	IV Year (EEE)	M. K. S. Nagendra
	16	23A21A0230	L. V. V. S. Kalyan	4 Year (EEE)	L. V. V. S. Kalyan
5	17	23A21A0202	A. Manikanta	4 Year (EEE)	A. Manikanta
	18	23A21A0206	J. Kirankumar	4 Year (EEE)	J. Kirankumar
	19	23A21A0226	M. Hanuman Appaji.	4 Year (EEE)	M. H. Appaji.
	20	23A21A0231	M. Sai Nagendra	4 Year (EEE)	M. Sai Nagendra
6	21	23A21A0205	Ch. Baby	4 Year (EEE)	Ch. Baby
	22	23A21A0201	A. B. D. N. Supriya	4 Year (EEE)	A. B. D. N. Supriya
	23	23A21A0237	P. Tulasi Naga Krishna Veni	4 Year (EEE)	P. Tulasi
	24	23A21A0207	Ch. Sumathi	4 Year (EEE)	Ch. Sumathi
7	25	23A21A0220	K. Leela Madhuri	4 Year (EEE)	K. Leela Madhuri
	26	23A21A0204	B. Preethi	4 Year (EEE)	B. Preethi
	27	23A21A0222	K. S. S. Meghana	4 Year (EEE)	K. S. S. Meghana
	28	23A21A0232	T. Rajesh	4 Year (EEE)	T. Rajesh
	29	23A21A0227	V. A. X. S. K. Paradogi	4 Year (EEE)	V. Paritya

Page 1 of 2

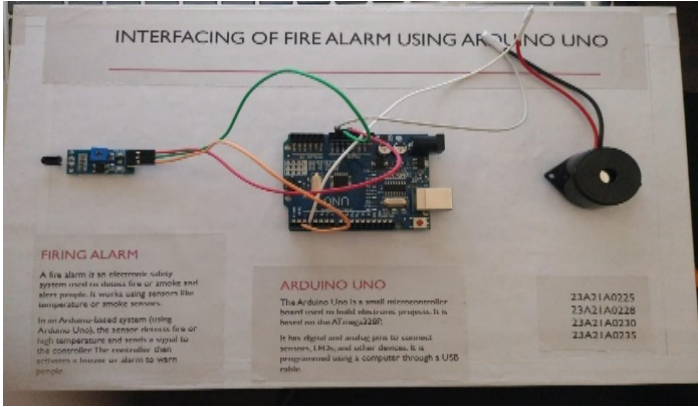
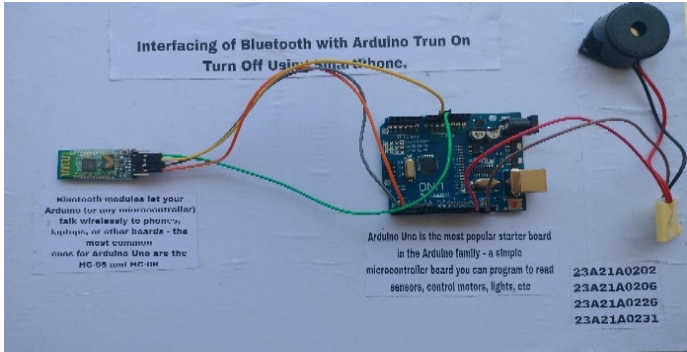
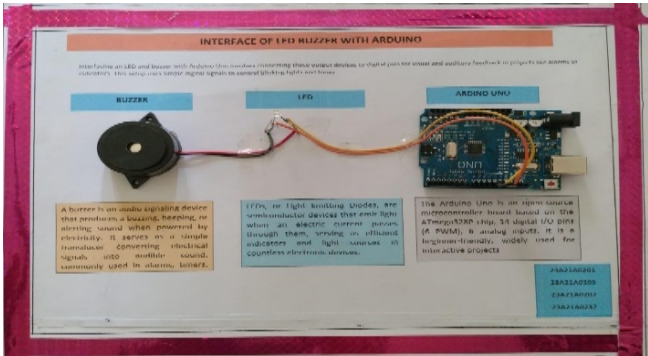
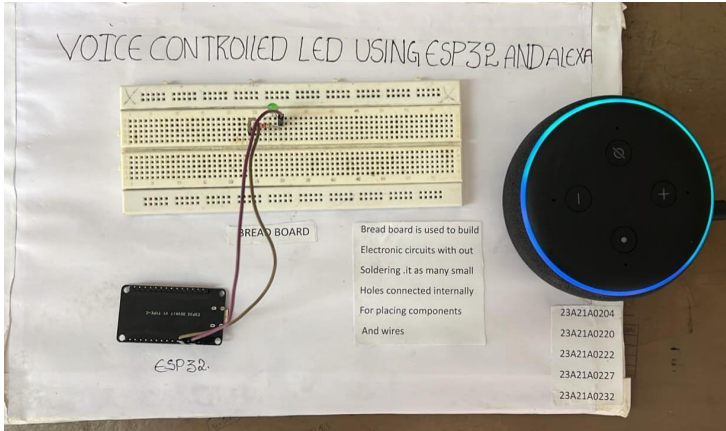
8	30	23A21A0209	D. Pavan	IV Year EEE	D. Pavan
	31	23A21A0218	G. Ramanjaneyulu	IV Year EEE	G. Ramanjaneyulu
	32	23A21A0216	G. Narendran	IV Year EEE	G. Narendran
	33	23A21A0221	K. Mohan Siddhu	IV Year EEE	K. Mohan Siddhu
9	34	23A21A0242	P. Nandini	IV Year EEE	P. Nandini
	35	23A21A0248	S. Venkata Sri Lakshmi	IV Year (EEE)	S. V. S. Laksh
	36	23A21A0243	T. B. V. Subrahmanyam	IV Year (E.E.E)	T. B. V. Subrahm
	37	24A25A0214	P. Yugandhar	IV Year (E.E.E)	P. Yugandhar
10	38	23A21A0245	Ravi. Tejaswini Devi	IV Year (EEE)	R. T. Devi
	39	23A21A0249	N. Pravalika	IV Year (EEE)	N. Pravalika
	40	23A21A0238	P. B. D. Prasad	IV Year (EEE)	Prasad
	41	23A21A0250	X. Venkata Sai	IV Year (EEE)	X. Venkata Sai
	42	23A21A0252	M. Venkatesh	IV Year (EEE)	M. Venkatesh

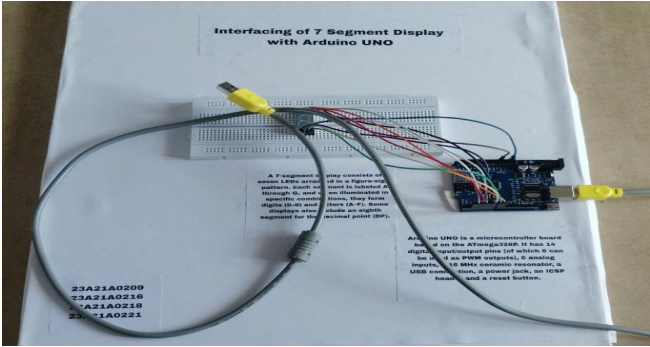
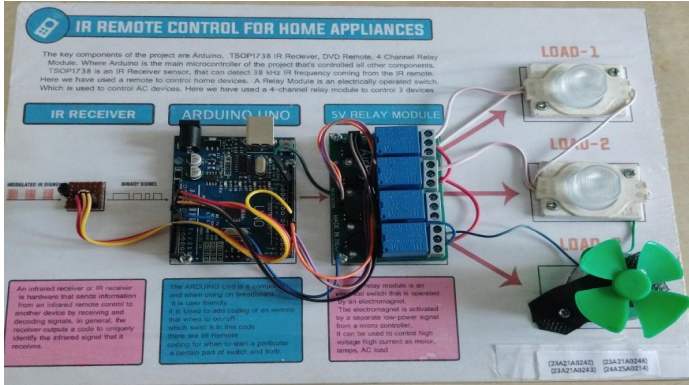
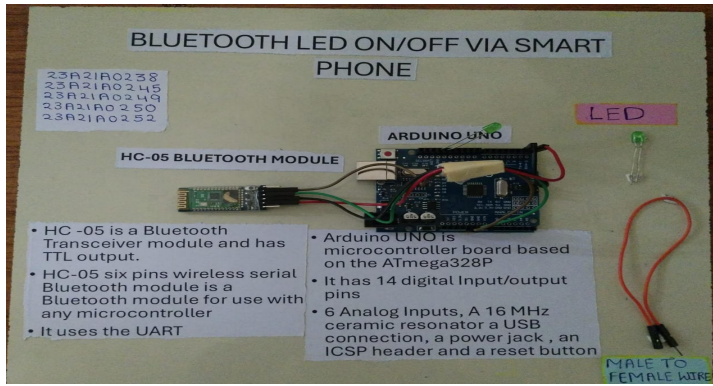
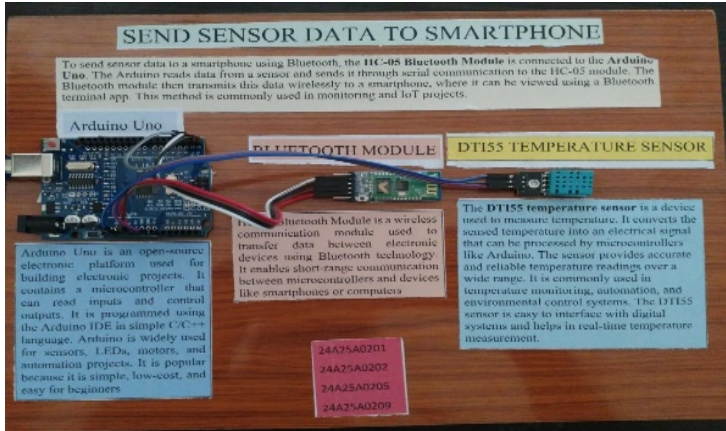
Head of the Department
Electrical & Electronics Engg.,
Swarnandhra College of Engg. & Tech.,
Seetharampuram, Narsapur - 501 080

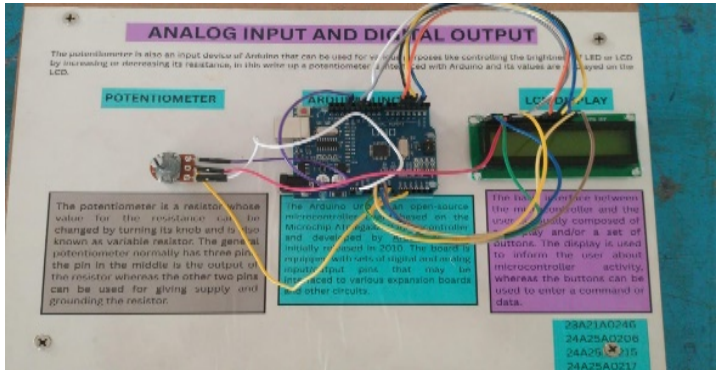
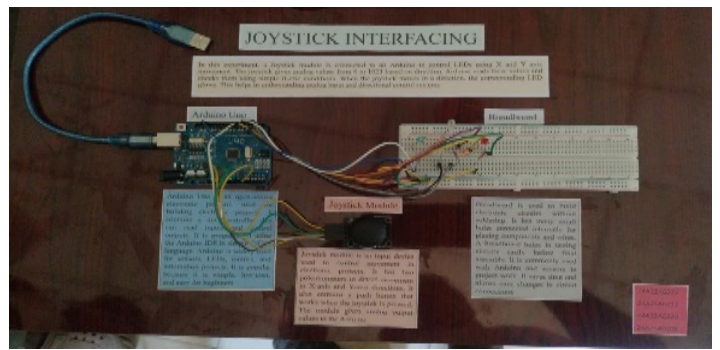
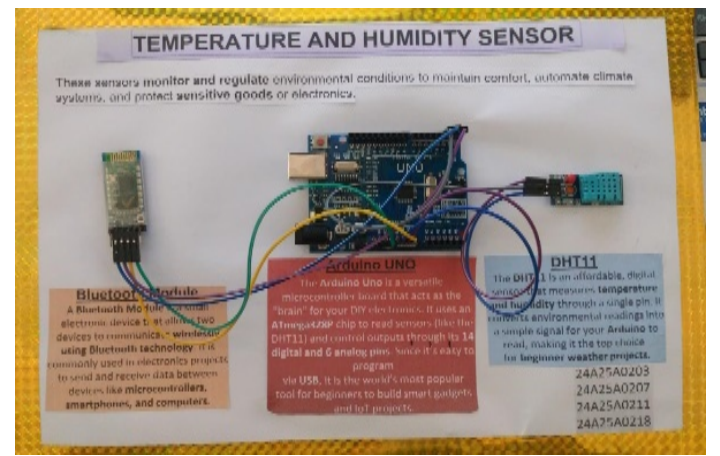
INNOVATION / PROTOTYPE VALIDATION (INTERNET OF THINGS)

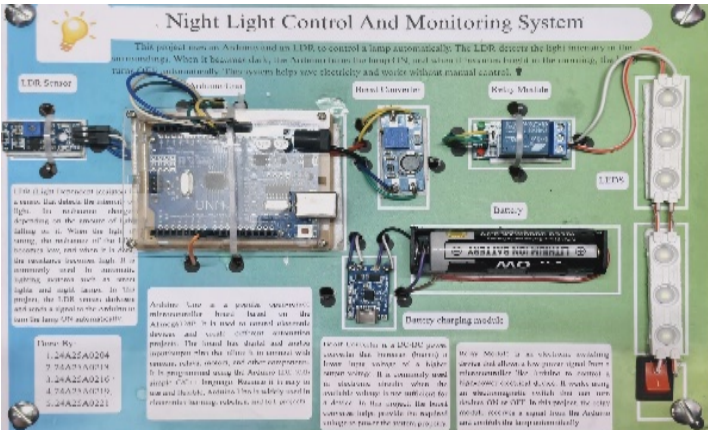
The **Innovation / Prototype Validation (Internet of Things)** activity was organized by **Swarnandhra College of Engineering and Technology** on **28/08/2026** to create awareness among students about IoT innovation, prototype development, validation, and practical applications. **Mr. B. Subrahmanyam, Assistant Professor, Department of EEE**, served as the Resource Person and Coordinator, with **Mr. V. Murali** providing technical support. **Dr. A. Satyanarayana, HOD–EEE**, supported and guided the activity. The session focused on developing innovative IoT ideas, validating prototypes, understanding user requirements, and exploring the practical and business potential of IoT-based solutions.

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04	23A21A0235 23A21A0225 23A21A0228 23A21A0230	Interfacing Of Fire Alaram Using Arduino	 INTERFACING OF FIRE ALARM USING ARDUINO UNO FIRING ALARM A fire alarm is an electronic using system used to detect fire or smoke and alert people. It works using sensors like temperature or smoke sensors. In an Arduino-based system (using Arduino Uno), the sensor detects fire or high temperature and sends a signal to the controller. The controller then activates a buzzer or alarm to warn people. ARDUINO UNO The Arduino Uno is a small microcontroller board used to build electronic projects. It is based on the ATmega2560. It has digital and analog pins to connect sensors, LEDs, and other devices. It is programmed using a computer through a USB cable. 23A21A0225 23A21A0228 23A21A0230 23A21A0235
05	23A21A0202 23A21A0206 23A21A0226 23A21A0231	On/Off When I/O Is Received From The Smart Phone Using Bluetooth	 Interfacing of Bluetooth with Arduino Trun On Turn Off Using Smartphone. Bluetooth modules let your Arduino (or any microcontroller) talk wirelessly to phones, laptops, or other boards - the most common ones for Arduino Uno are the HC-05 and HC-06. Arduino Uno is the most popular starter board in the Arduino family - a simple microcontroller board you can program to read sensors, control motors, lights, etc. 23A21A0202 23A21A0206 23A21A0226 23A21A0231
06	23A21A0205 23A21A0201 23A21A0237 23A21A0207	Interfacing Of Led/Buzzer By Using Arduino	 INTERFACE OF LED BUZZER WITH ARDUINO Interfacing an LED and Buzzer with Arduino Uno involves connecting these output devices to digital pins for control and providing power to the components. The setup uses a simple circuit to control the LED and buzzer. BUZZER A buzzer is an audio signaling device that produces a buzzing, beeping, or chirping sound when powered by electricity. It serves as a simple transducer converting electrical signals into audible sound, commonly used in alarms, beeps, etc. LED LEDs, or light-emitting diodes, are semiconductor devices that emit light when an electric current passes through them, turning on without inductance and light sources in countless electronic devices. ARDUINO UNO The Arduino Uno is an open-source microcontroller board based on the ATmega2560 chip, 5V digital I/O pins (or PWM), 5V analog inputs. It is a high-speed, low-cost, widely used for hobby projects. 23A21A0205 23A21A0201 23A21A0237 23A21A0207
07	23A21A0220 23A21A0204 23A21A0222 23A21A0232 23A21A0227	Alexa Based Home Automachine System	 VOICE CONTROLLED LED USING ESP32 AND ALEXA BREAD BOARD Bread board is used to build Electronic circuits with out Soldering. It has many small Holes connected internally For placing components And wires. ESP32 23A21A0204 23A21A0220 23A21A0222 23A21A0227 23A21A0232

08	23A21A0209 23A21A0218 23A21A0216 23A21A0221	Interfacing Of Seven Segment Display Using Arduino	
09	23A21A0242 23A21A0248 23A21A0243 24A25A0214	Ir Remote Control For Home Appliances	
10	23A21A0245 23A21A0249 23A21A0238 23A21A0250 23A21A0252	Interfacing Of Bluetooth With Arduino	
11	24A25A0202 24A25A0201 24A25A0209 24A25A0205	Interfacing Of Bluetooth With Arduino Send Sensor Data To Smart Phone Using Bluetooth	

12	24A25A0215 24A25A0206 24A25A0217 23A21A0246	Interfacing Of Analog Input And Digiotal Outputwith Arduino	
13	24A25A0222 24A25A0220 24A25A0212 24A25A0208	Interfacing Of Joystick With Arduino	
14	23A21A0240 23A21A0239 23A21A0241 23A21A0244	Interfacing Of Receiving Temperature And Humidity Data To Things Peak Cloud	
15	24A25A0207 24A25A0203 24A25A0218 24A25A0211	Interfacing Of Temperature Sensor With Arduino	

16	24A25A0216 24A25A0219 24A25A0204 24A25A0213 24A25A0221	Night Light Control And Monitoring System	
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Conclusion:

The Innovation and Prototype Validation of IoT-Based Solutions session provided a valuable platform for students and faculty to understand the complete innovation journey from idea generation and prototype development to user validation, value proposition and business fit.

The activity encouraged participants to develop IoT solutions that address real-world problems and have potential for further development into startups or market-oriented products. The session also created awareness about incubation, mentorship and entrepreneurship opportunities for early-stage innovators.

EEE-HOD