Supporting Document for Qualitative Metric 2.3.1
Problem Solving Methodologies

Submitted to NAAC

By

Einstein Academy of Technology and Management (EATM), Bhubaneswar

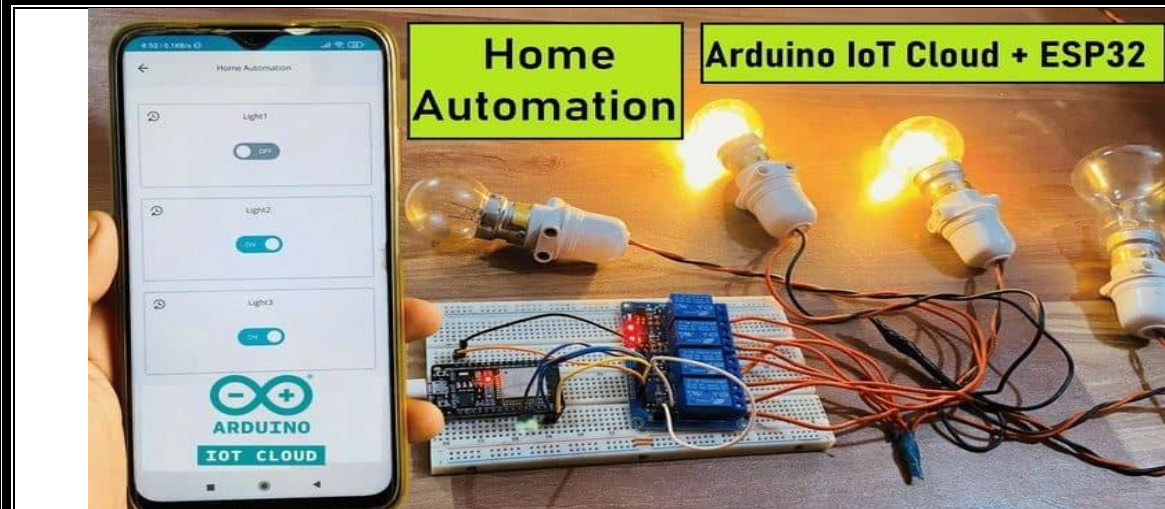|	**EINSTEIN ACADEMY OF TECHNOLOGY AND MANAGEMENT**
	Approved by AICTE, Affiliated to BPUT Odisha
	At: Baniatangi, PO: Bajapur, Khurdha, PIN: 752060
	Bhubaneswar

Contents
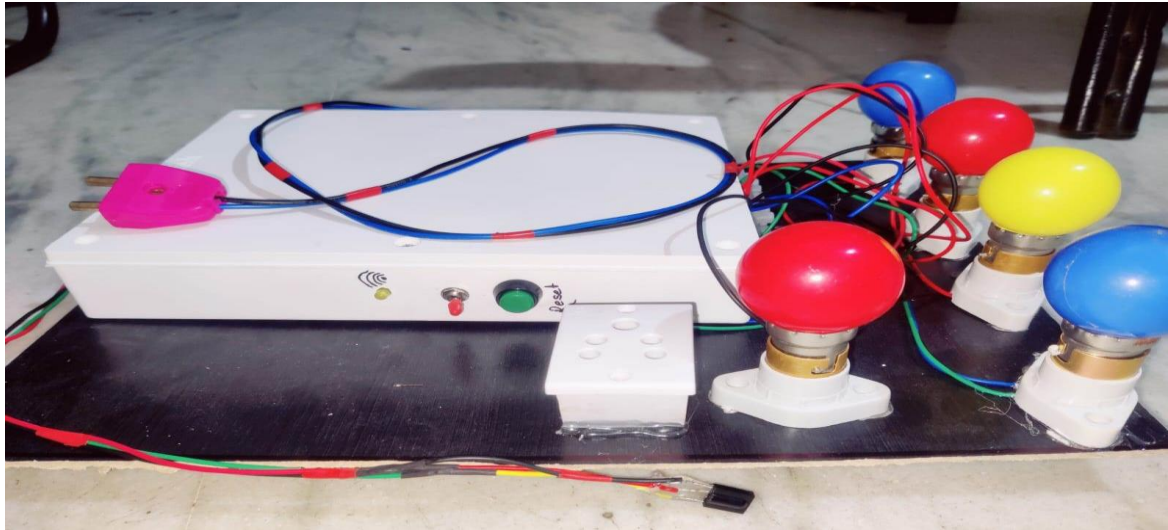
3. Problem solving methodologies

3.1. Use of Technologies: Use of technologies and tools like MATLAB, AutoCAD, Ansys, programming languages like C & C++, JAVA, Python are being used in solving engineering problems by the students.
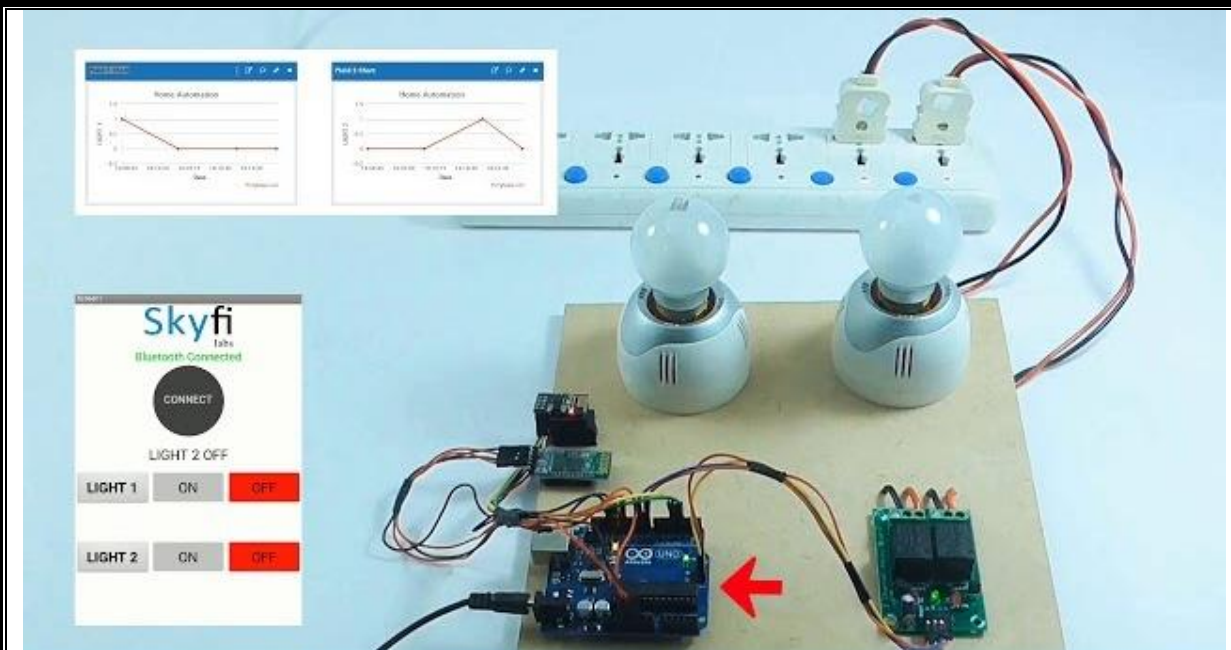

1ˢᵗ Year Students receiving prizes in Hackathon held in EATM premises

IOT based Home Automation System, made by CSE Students

Development Of An Intelligent Switch Board Using IOT, Blynk App & Remote By ECE Students

IOT based home automation system made by EE & EEE Students

Fire Fighting Robot(Made By Mechanical Students)

About the Project:

Fire fighter robot can be used to control the fire. this robot can detect the fire by itself and control the fire by throwing water. there are some sensors we are using that can detect fire and robots can move there to fire extinguish. The firefighting robot has the same structure as Bluetooth control

RC car. the robot has 3 sensors 1 sensor at the front side which see if there is anything in front of the robot.

the other two at the both front corner which also searches for fire. if any sensor detects fire at any site the robot will sensor and move towards it. the **firefighting robot** has 4 wheels, 3 sensors, one water tank, one nozzle, and a computer which help him to take decision according to the Arduino code.

The robot is a small version till the date post published and there is only some basic feature when you will start the robot it will move forward first until it gets fired anywhere. if any sensor of the robot will find the flame anywhere it will start moving toward the flame and with the help of the water nozzle of the **firefighting robot using Arduino** will start watering the particular area. Fire fighter robot and line follower robot have the same sensor but the working in both conditions are different.

3.2. Programming/quiz Contests: Inter and Intra college programming/quiz contests are arranged where students design and develop solutions to the given problem statement.

2ND RUNNER UP ON TECHNOCIAN WORLD CUP 2023, NEW DELHI

Receiving prizes in Silicon Tech Fest(NIRMAN)

3.3. Real life Projects: Students are encouraged and guided to involve themselves in various real life projects such as bio-gas preparation, rainwater harvesting, Waste management etc.

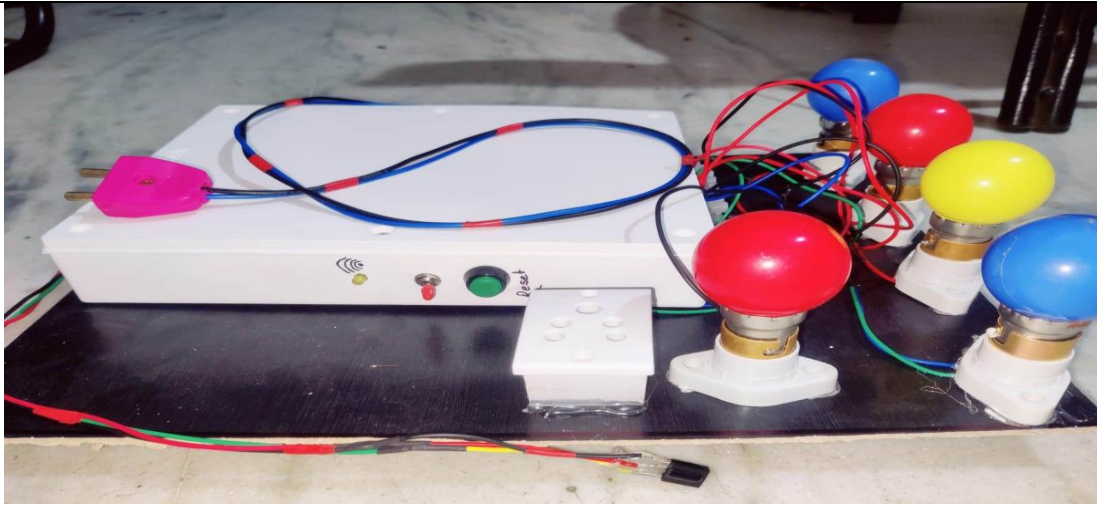**IOT based Home Automation System, made by CSE Students**

Waste Heat Recovery from Refrigeration System made by Mechanical Students

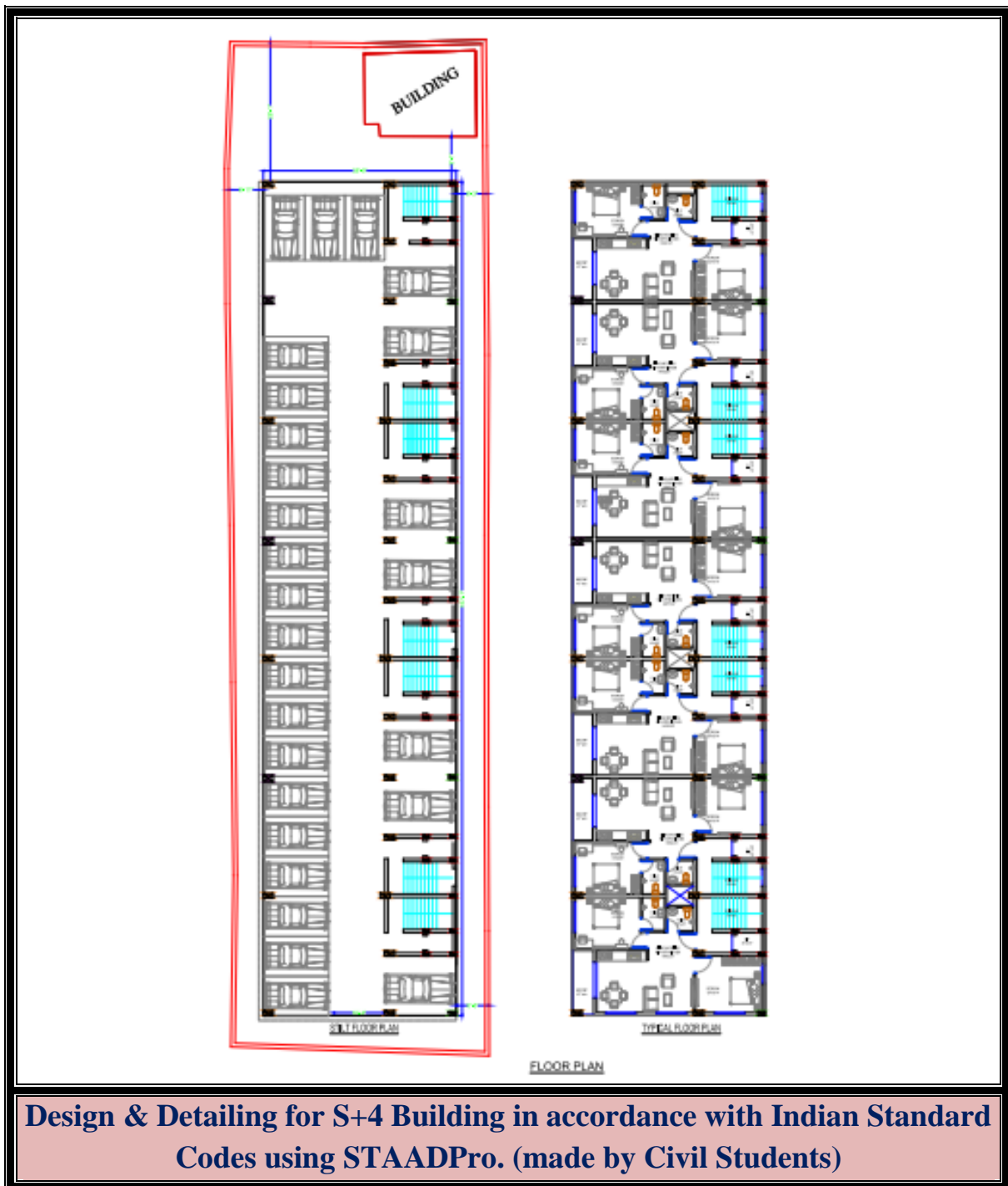**Development Of An Intelligent Switch Board Using IOT, Blynk App & Remote By ECE Students**

A mini solar power plant has been installed in our campus for production of green and sustainable energy (made by EE & EEE Students)

Design & Detailing for S+4 Building in accordance with Indian Standard Codes using STAADPro. (made by Civil Students)