SMART INDIA HACKATHON 2022

Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation:
National Institute of Design Madhya Pradesh
PS Code: ST888

Problem Statement Title: Automated feedback system to know the exact location of non-functional streetlights in the rural areas of Central India

Team Name: Black Pantherz

Team Leader Name: Viswanathan Krishnan
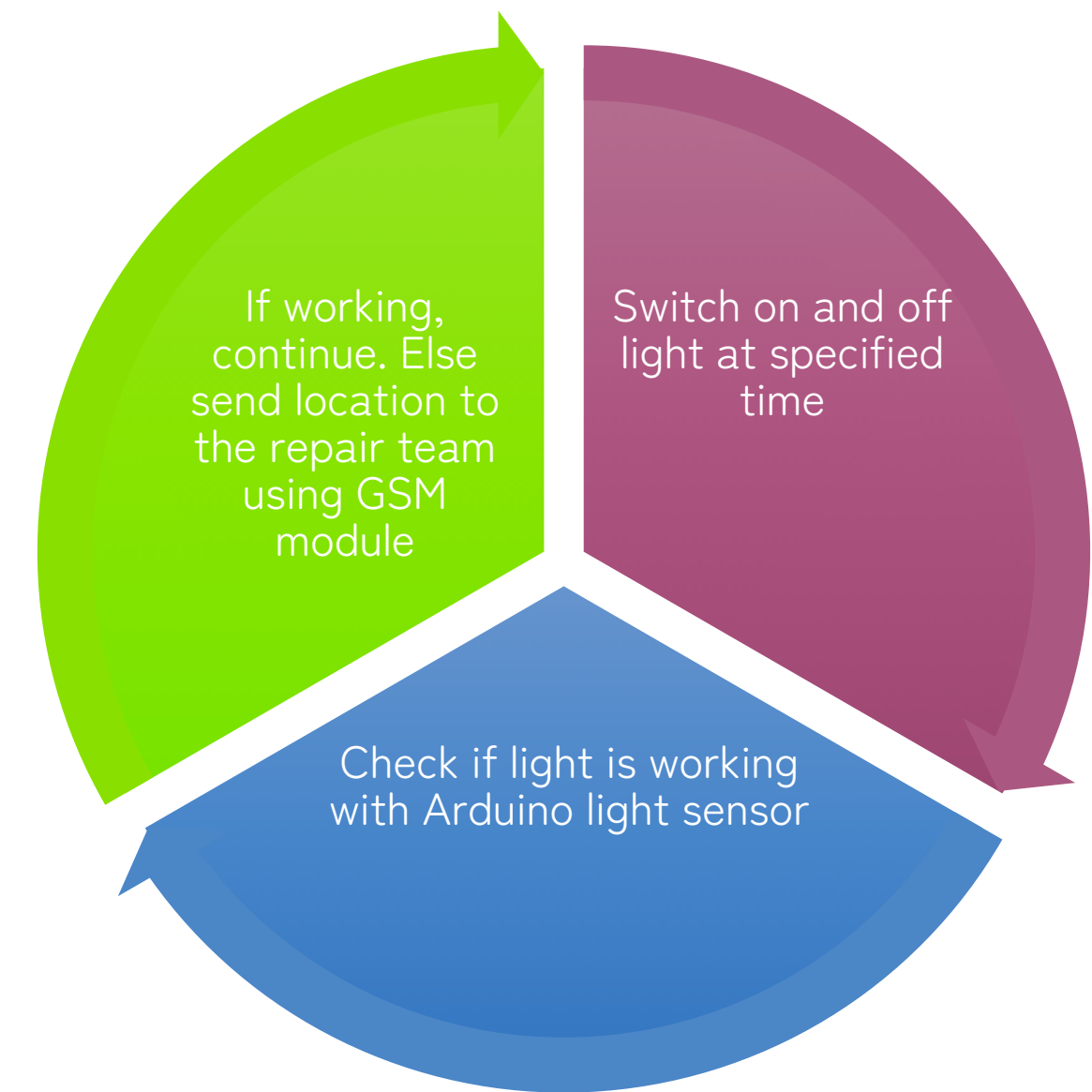
Institute Code: C-16537

Institute Name: St Joseph's College of Engineering
Theme Name: Miscellaneous

Idea/Approach Details
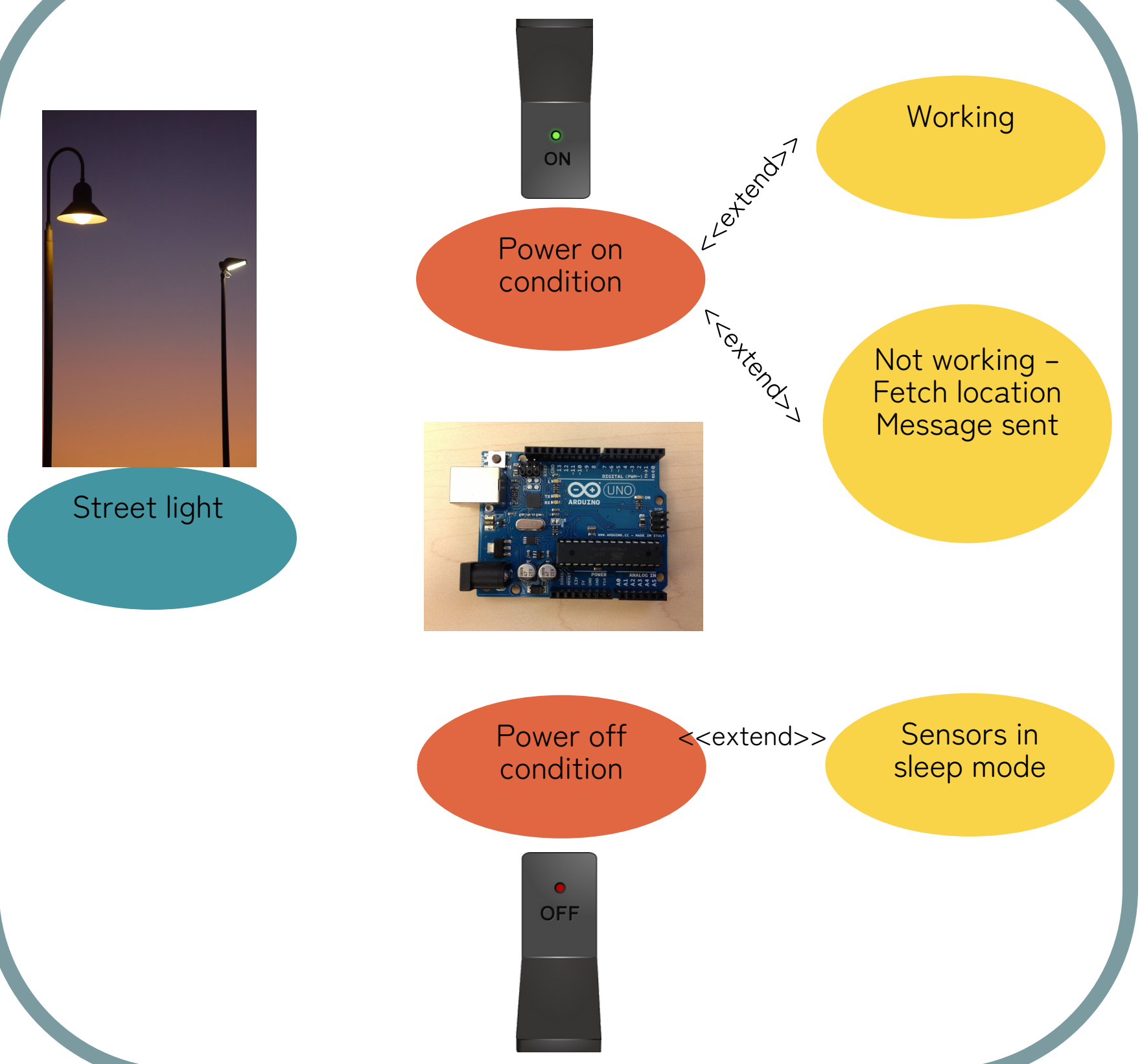
Describe your idea/Solution/Prototype here:

- The major idea is that the coordinates of the non-working streetlights are fetched and the coordinates are sent to the repair team to make the light repair quicker.
- The lights are switched on and switched off automatically at a fixed time everyday. If the light doesn't get switched on within the next 2-3 mins after the particular time, the notification is sent to the repair team.
- The notification is sent to the team with help of a sim placed inside. The coordinates which are predefined are sent to the repair team with help of GSM module using Arduino.

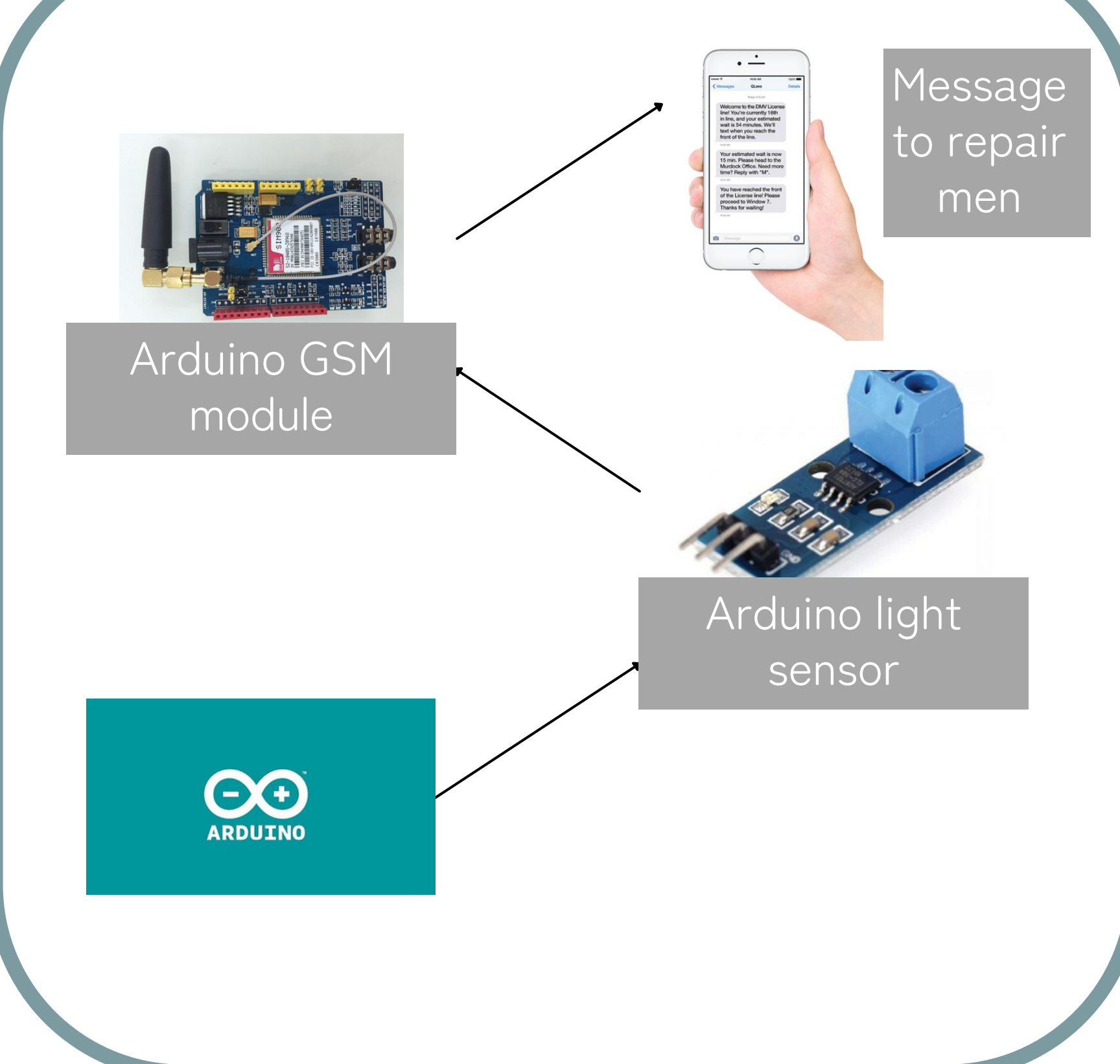If working, continue. Else send location to the repair team using GSM module

Switch on and off light at specified time

Check if light is working with Arduino light sensor

Tech Stack

Arduino Board

Arduino Light sensor

Arduino GSM module

Arduino Programming

USE CASE

Street light

Power on condition

<<extend>> Working

<<extend>> Not working – Fetch location Message sent

Power off condition <<extend>> Sensors in sleep mode

DEPENDENCIES

Arduino GSM module

Message to repair men

Arduino light sensor

Team Member Details

Team Leader Name: Viswanathan Krishnan
Branch (Btech/Mtech/PhD etc):   Btech   Stream (ECE, CSE etc):   IT   Year (I,II,III,IV): I
Team Member 1 Name: Siva Sankar G
Branch (Btech/Mtech/PhD etc):   Btech   Stream (ECE, CSE etc):   IT   Year (I,II,III,IV): I
Team Member 2 Name: Surya R
Branch (Btech/Mtech/PhD etc):   Btech   Stream (ECE, CSE etc):   IT   Year (I,II,III,IV): I
Team Member 3 Name: Rino Akshai E
Branch (Btech/Mtech/PhD etc):   Btech   Stream (ECE, CSE etc):   IT   Year (I,II,III,IV): I
Team Member 4 Name: Swetha PS
Branch (Btech/Mtech/PhD etc):   Btech   Stream (ECE, CSE etc):   IT   Year (I,II,III,IV): I
Team Member 5 Name: Swathika J
Branch (Btech/Mtech/PhD etc):   Btech   Stream (ECE, CSE etc):   IT   Year (I,II,III,IV): I
Team Mentor 1 Name: Anitha S
Category (Academic/Industry): Academy   Expertise (AI/ML/Blockchain etc): Software Engineering , ML Domain Experience (in years):   7
Team Mentor 2 Name: Kripa Sekaran
Category (Academic/Industry): Academy   Expertise (AI/ML/Blockchain etc): Wireless sensor Networks Domain Experience (in years):   8