



SMART CITY

THE IOT PROJECT

GROUP MEMBER'S DETAILS

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DEFINITION

- “Smart City” is the project about managing all the possible electronic Devices/Components, Different Corporate department of city automatically by using of Information Technology, Digital Electronics and some help of Electronic Engineering.
- In short this is project of IOT based Technologies.

OBJECTIVE

- The objective of “Smart City” Project is about automation of all possible devices and different government sectors to remove the burden from people who work in this field.
- But as we all know, As a student we have some time limitation of only half of a year to achieve our goal.
- So we decide to complete only essential module first, and then if time allows we will also cover more modules.

BRIEF DETAIL ABOUT PROJECT

- In “Smart City” project our team is just trying to manage all possible electronic devices and government sectors automatically with the help of IOT technology.
- All electronics devices in the city like Street Light, Water Supply System, Traffic signals, etc and Government Sectors like door to door to dump collection machines, smart parking management, emergency vehicle passaway etc.

AREA

- Different areas of city are covered in our project like Heavy Traffic Roads/Signals, Parking Areas, City Cleaning Department, Smart Home, Street Light automation, Municipality Water Supply System and etc.

SIMILAR PROJECTS:

- Currently used Traffic Signal System
- Poor automation in Parking System
- Zero automation in Dumping System
- Physical management of Street Light
- Manual Municipality Water Supply system

THEIR LIMITATION

➤ Traffic System:

- Now a day's traffic signal uses time division method in which all signal on road are automatically turns on and off according to their time space.
- The problem is that even though there is no vehicle on a road, a time slice is taken by the useless signal.
- While other side also has same time slice although it has heavy traffic.

➤ Parking Areas:

- Some Parking System uses token System Nowadays, but this system is limited by physical appearance of human.
- Our system will cover this limitation by IOT devices.

THEIR LIMITATION

➤ Dumping System:

- As we know there is no automation at all in our currently door to door dumping system, so there are many problems in present days with workers of dumping system.
- Our system will cover the problems with the facilities like providing message/notification service to dumping station, and many more services will be provided by our system.

➤ Street Light System:

- Presently Street Light runs of physical management of all the Areas, which requires many human efforts, to remove this problem we are proving the service about automatically managing the street lights.
- Also, currently the Lights remains on even though no necessary. We will also cover the problem by proving Each Light the dedicated sensors.

THEIR LIMITATION

➤ Water Supply System:

- The system of water distribution has been the same in the Municipality for years, we will automate the system by providing the time tabled distribution of water in the area from the Water Tank.
- Also, the facility of automatic water level management in water tanks will be provided by our system.

PROJECT DETAILS

- This is basically an IOT project.
- In Smart City Project we will cover different areas/department of our city in purpose of making them smart with help of current world technology to help the people involving in this area by removing the burden of managing the system.
- Different areas, which will be covered in our system is
 - Street Light management
 - Water supply system
 - Parking system
 - Traffic management system
 - Water distribution management
- As there are many more components to cover in smart city but first we will cover only primary components, then if there is time left, we will try to cover secondary components also.

CURRENT WORK

- As we building an IOT project, We require many areas of technology to be studied like Android Programming, Database Management, IT embedded Electronic devices Different Electronics Technology, Different Sensors, and many more thing which will be known by only facing problem in our further work.
- Currently we have studied different Electronic Sensors and their Communication method, which we will use in our IOT project to managing different areas of our project.
- We have studied Arduino Programming and we have successfully made many prototype models with Arduino based technology.
- We are done with the techniques which will be used in communication of different components of our system with Android and Database Technologies.

WORK LEFT

- The Prototype Model for our project is in Developing Phase right now. We will submit our Project's Prototype model at the end of 7th semester.
- We will cover all the ground work of our project in this 7th semester.
- And we will do our best to complete the working model of our project before the submission of last semester.

CONCLUSION

- In simple words our project is about to automate the city with the help of modern technologies to simplify the work of normal human being as easy as possible.

REFERENCES

➤ Online IDE for Project Designing

- <https://www.tinkercad.com/dashboard>

➤ Open Source IDE for Arduino Development

- <https://create.arduino.cc>

➤ Arduino Learning Video Series

- https://www.youtube.com/playlist?list=PLV3C-t_tgjGE1USbPg2jrrDMu26F_M7K-

The image features a dark blue gradient background. In the corners, there are decorative white line art elements resembling circuit boards or neural networks, with lines and small circles connecting them.

THANK
YOU