



# IoT Based Air Contamination Monitoring System



## Introduction

Air pollution is one of the most widespread phenomena in the world. The phenomenon of air pollution is considered one of the environmental pollution. Polluted air contains gases classified as polluting gases such as CO and SO<sub>2</sub>. The evolution of IoT has helped to handle this problem.

## Background

One of the most factors that make any human being live is breathing good air. This means breathing a pollutant air can lead to critical conditions and lead to death. So, there are many proposals raised to monitor air pollution to help to solve the problem. One of the solutions the create of a mobile application to monitor the levels of air pollution in a certain area. But in our project, we used a website to show the levels of the polluted air.

## Objectives

### Design a device

- NodeMCU
- MQ-7 Sensor
- GPS module

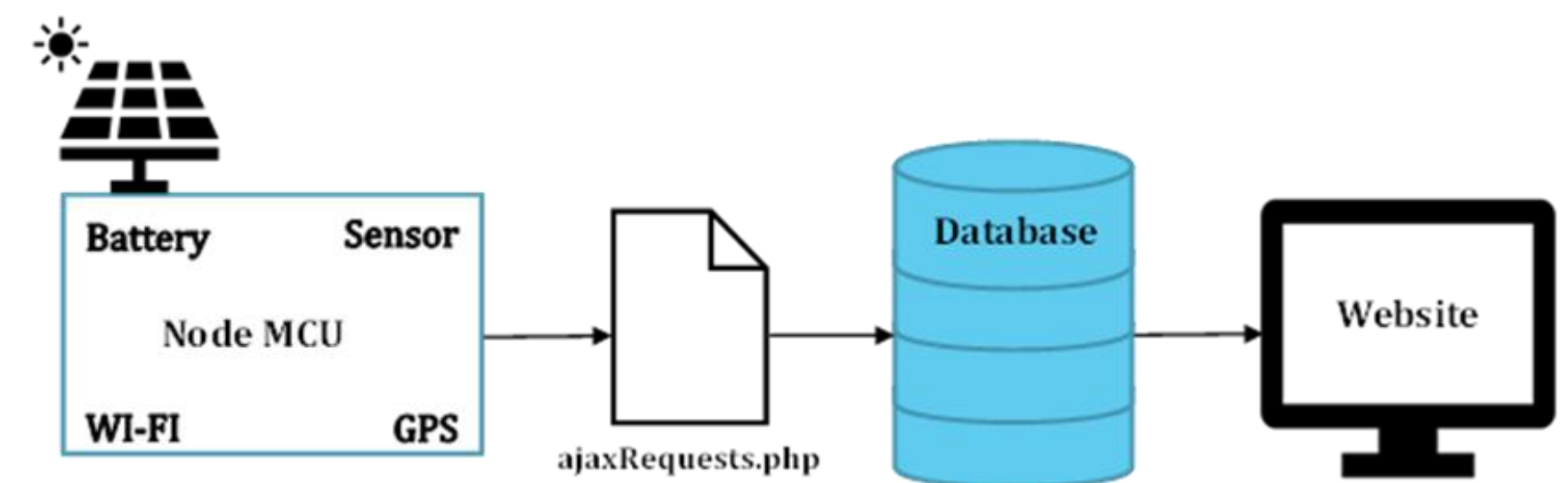
### Design a database

- Built by MySQL

### Design a website

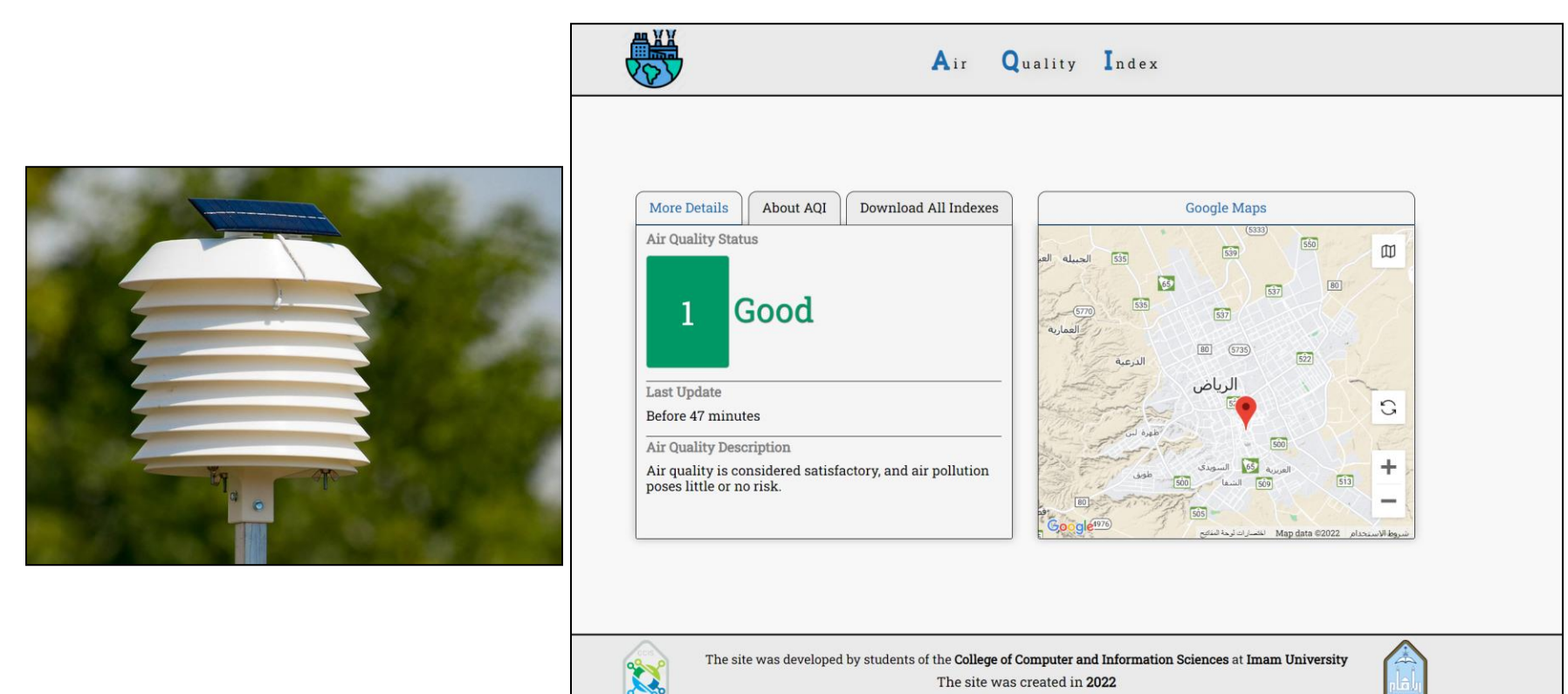
- Built by Front-End & Back-End languages

## Methodology



The microcontroller will be charged with a solar cell, and the sensor and GPS will be sent to the database from wi-fi by ajaxRequests.php file. The user can view the data on the website.

## Design



The air pollution device <sup>[1]</sup> and the website <sup>[2]</sup> will be as shown above.

## Conclusion

In conclusion, the air contamination monitoring system was built in different stages, starting from the hardware component to the database to store and fetch the data to the website.

## Reference

- [1] <https://thingiverse.com/thing:1718334>
- [2] <http://askagg.com/MyProjects/ImamU/graduationProject/implementation/>