IJARSCT

ISSN (Online) 2581-9429

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 2, Issue 8, June 2022

Impact Factor: 6.252

Integrated Automatic Flood Warning and Alert System Using IoT

Prof. S. S. Chavan[1], Shubham Santosh Lakhimale[2], Rohit Ramuji Pendem[3], Mahesh Suresh Patil[4], Tushar Dattaram Manjarekar[5]

Assistant Professor, Department of Electrical Engineering, NBNSSOE, Ambegaon bk, Vadgaon, Pune[1]

Student, Department of Electrical Engineering, NBNSSOE, Ambegaon bk, Vadgaon, Pune[2,3,4,5]

Abstract: *Flood is major problem in our world. Flood is an unavoidable natural disaster in all over the world, causing heavy flow of water and also severe damage to properties and lives. For this reason, we need to create a flood detection system to monitor rising water residential areas. By using ultrasonic sensors, we need to create flood level sensing devices which will detect the water level. This system is integrated to the microcontroller board which will help to send the data each time the water reaches the will be stored in a cloud. The data stored in the cloud will help to send it to the users. The user can get real-time information on monitoring flooded roads through android application.*

The ultrasonic sensor senses the continuously water level and LM35 is used for sense the temperature. This data fed to the Arduino UNO. The Arduino uno compare and analyse data to set threshold value. Then the alert SMS send to the mobile and also the LED are glow frequently. Also, buzzer will be activated. Due to the android application, it is user friendly and helps to get information in one touch. Update will be given to the rescue team and to the residents of the locality and in order to alert the person in charge of the control unit, the buzzer and LED will give information. This project is useful for future displacement.

Keywords: Arduino Uno, Ultrasonic Sensor, IoT Wi-Fi Module, LCD, Buzzer, LED's, LM35, etc.

REFERENCES

[1] Research Papers Plate, E.J.& Insisiengmay, T., Early warning system for the lower Mekong River. Water International 30 (1), 2005, 99- 107.

[2] Price, R.K., Handout on Floods and Flood Management - Unit 1.2 of I-Learning.

[3] Module on Flood Management for Modelling, Unesco – IHE, Institute for Water Education 2006.

[4] Mamonong, Ma. Adelaida M. and Flores, Reinero M., Climate Change Vulnerability.

[5] Adaptation Assessment Report Sorsogon City, Philippines, http://goo.gl/jjdiwU

[6] R. Becker, "A future of more extreme floods, brought to you by climate change," May 2017. [Online]. Available: https://www.theverge.com/2017/5/18/15658342/flooding-sealevel- rice-meltingice- climate?change-extreme.

[7] Al-Fuqaha, M. Guizani, M. Mohammadi, M. Aledhari, and M. Ayyash, "Internet of things: A survey on enabling technologies, protocols, and applications," IEEE Communications Surveys Tutorials, vol. 17, no. 4, pp. 2347–2376, Fourth quarter 2015.