|  |  |  |
| --- | --- | --- |
| **BSc (Hons) Computing Course 2019/20**  **Level 6 Production Project** | | |
| **Name:** Basanta Timilsena | **Student I.D.:** C7190023 | |
| **Course:** BSc (Hons) Computing | **Supervisor’s Name:** Mahesh Maharjan | |
| **Final Project Individual Aim & Objectives** | | |
| **Title of my Project:** High water level indicator and flood warning system | | |
| **Aim of my Project:** Analysis risk of flood and alert people about flood. | | |
| **Objectives of my Project:** to research on flood forecast and detect the level of water for flood detection using sensor.  To design a device using IOT which monitor information of flood.  To develop a system that will apprise observing station once the water level is critical. | | |
| **Specification of my Product:**  Must:   1. Alert the monitoring station once flood level rises to critical conditions. 2. Notify the authorities even after water rises to safe level. 3. Once the water rises is detected message is send to monitoring station, which is very important and information should passed in shortest time duration.   Should:   1. Alert message is send to monitoring station   Could:   1. Dashboard for monitoring system | | |
| **Research:**  There are some place, which is flat than any other place, which result flood. The use of flood alert system may reduce great damage in residential areas and it can protect the lives. Alert system can be use in nearer area of water, which provides the information. Flood may come at any time so it is necessary to aware people who are close to flooded area. Therefore, here I am designing the flood alert system who provides information about the upcoming flood through message. We are using the sensor, which help us to get message about flood.  There will be water sensor, which measures the water level and send the water level to workstation. GSM Module used to send the data to workstation. As soon as data is send to workstation alert message is send to people nearer to riverside. | | |
| **Project Planning & Methodology** | | |
| **Project Planning:** I have divide my work into 6 important part they are:-   1. Gathering information to analysis 2. Design 3. Coding and implementation 4. Testing 5. Development 6. Maintenance   **C:\Users\atnas\OneDrive\Desktop\Capture.PNG**  **Methodology:** I am using the agile method to monitor the flood. | | |
| **Resources** | | |
| **The hardware and software I require to complete my Project successfully:**  **Hardware:**   1. Sim 900 GSM GPRS 2. Arduino 3. Water level sensor 4. Battery 5. Jumper wire 6. Laptop 7. Mobile   **Software:**   1. Arduino ide 2. Blynk – IOT for Arduino | | |
|  | |
| **Human Resource** | | |
| **I am working on my Project with the following people** | | |
| **Name:** Mahesh Maharjan | **Role:**  Module Leader  Supervisor | |
|  |
| **Initial Bibliography** | | |
| Bibliography J, A. A. (2017). IoT Based Disaster Detection and Early Warning Device. *International Journal of MC Square Scientific Research* .  SUBRAMANIAM, S. K., SUBRAMONIAN , S., GANNAPATHY, V. R., & HAMIDON, A. H. (2010). Flood level indicator and risk warning system for remote. *WSEAS TRANSACTIONS on SYSTEMS and CONTROL*. | | |