FLOOD WARNING SYSTEM

Overview

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Abstract - *The purpose of a flood warning service is to detect and forecast threatening flood events so that the public can be alerted in advance and can undertake appropriate responses to minimize the impact of the event.*

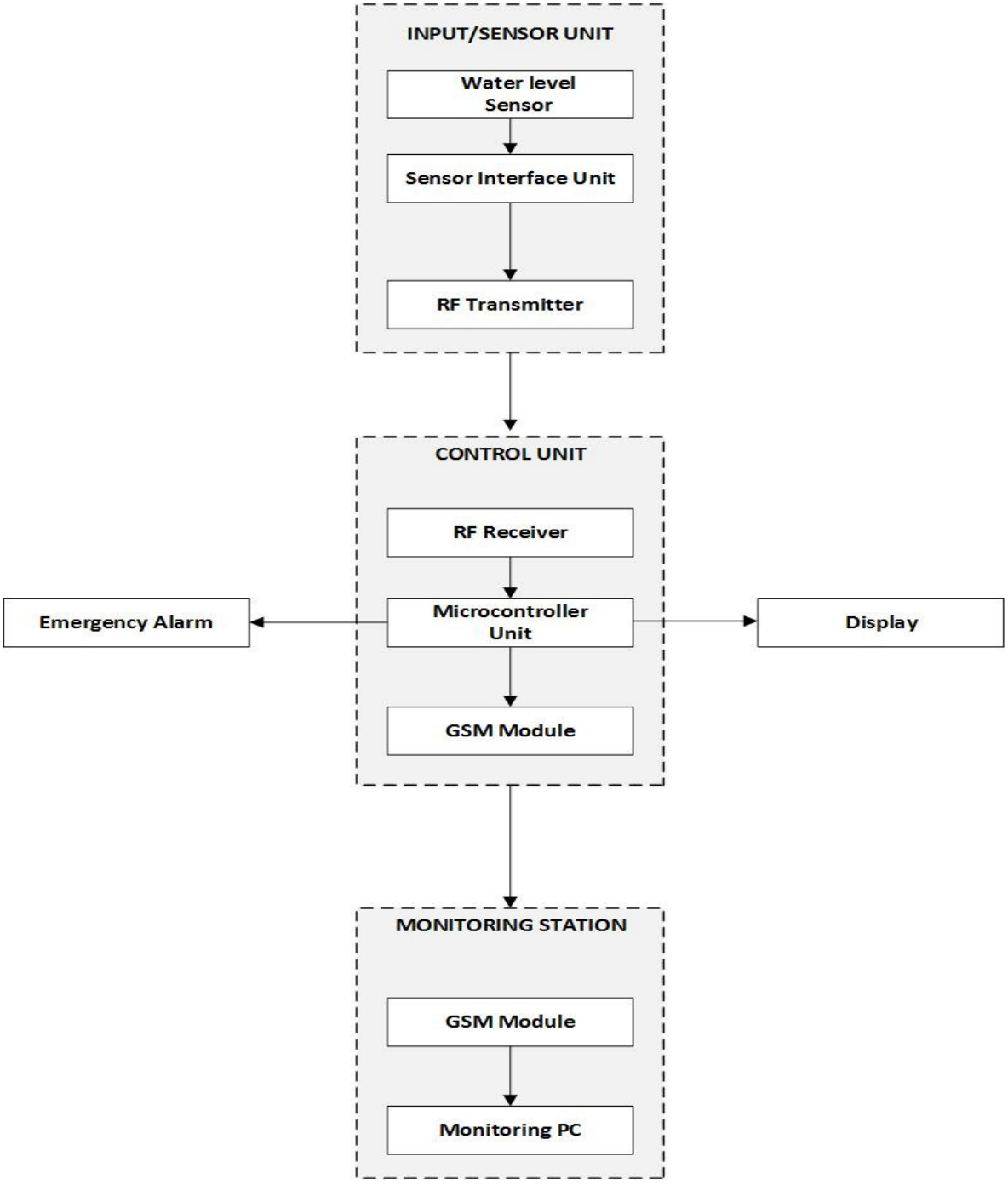

Figure 1: Flood monitoring system View

Brief Description

The top level diagram of flood warning system is as shown in Figure 1. It consists of the following units

1. Input/sensor unit
2. Processing unit
3. Monitoring Station

1. Input/sensor unit

Input sensor unit is a form of wireless sensor network comprises of water level sensor, sensor interface unit and RF transmitter. The unit is mounted at the appropriate location in order to detect the water level changes in rivers/dams accurately. Water level detected by sensor is transmitted to processing unit wirelessly using a RF module. Sensor interface unit consists of controller unit and provides necessary interface to RF transmitter.

2. Control unit (Processing unit)

The control unit is placed at a distant / safer location from a sensor unit. It receives the data from sensor unit through RF communication and processes the data to determine whether the level is within the safer zone and transmit the warning message instantaneously to the monitoring station via GSM (Global System for Mobile communication).Control unit also consists of local display and emergency alarm to warn the neighborhood if the level reaches the danger zone.

3. Monitoring station

Monitoring station receives the message sent by the control unit and necessary action are taken to minimize catastrophic damages and to protect the lives.