WSN Landslide Detection

Introduction:

The power of wireless sensor network technology has provided the capability of developing large scale systems for real-time monitoring. This paper describes the evolution of a wireless sensor network system for landslide detection. Real-time monitoring of environmental disasters is one of the prime necessities of the world. Different technologies have been developed for this purpose. Wireless sensor network (WSN) is one of the major technologies that can be used for real-time monitoring.

In this Project 3 types of sensors are used to detect the landslide. (Rainfall Sensor, Tilt Sensor and Pressure Sensor) These three sensors are interfaced to ARM Micro controller (slave) and the information is send to the Master Microcontroller through wireless network (Zigbee). The Master controller compares the current sensor information with threshold (nominal) values. If the value is abnormal it turns on the alarm. The Master controller can be connected to System/Laptop so that all the information are recorded and monitored.

BLOCK DIAGRAM: