



THE RESEACH ON WIRELESS SENSOR NETWORK FOR LANDSLIDE MONITORING

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Abstract- The paper mainly discusses design and implementation of key functions such as transceiver unit, MCU control unit, Data acquisition module and Background monitoring unit. Furthermore, the corresponding software platform is implemented according to hardware architecture. Finally the solution is applied into Loess landslide at Luoshan County in China. The experimental results show that bit error rate remains between at 10^{-5} ~ 10^{-6} . This range coincides with communication standards of wireless sensor network. Furthermore, collected data are proved to be consistent with natural phenomenon. Compared with traditional monitoring method, the new method has better advantages.

Index terms: Wireless sensor network, landslide monitoring, landslide pre-warning, data acquisition, bit error rate.