

# Abstract

The initial development of the communication network transmission technology is based on copper transmission. Today, the fiber has better characteristics than copper wire, such as high speed rate, high signal to noise ratio, low crosstalk, and a long distance etc, the fiber is widely utilized in optical communication system. Therefore, this project is proposed to develop a simple alarm system based on the optical transceiver. The alarm system transmitted through the optical fiber, can be used in a safety security of the modern building.