# ABSTRACT

The title of the project is “Development of Wireless Signaling System for Smart Office Environment”. The device transmits signals from negative temperature co-efficient and photoelectric smoke sensors wirelessly to a remote station. It can differentiate the source of the signals and then displays the corresponding room numbers and condition of the two rooms on a 16x2 LCD. Those conditions are normal, abnormal and fire conditions. Whenever a fire occurs, a message “ROOM X: FIRE!” is displayed and the 6w, alarm and 10w, emergency lamp are triggered. The operation of the device is back to normal when the fire stops.

The 315MHz, ASK modules are responsible for transmitting the signals to the receiver. The PIC16F84A microcontroller at the receiver side is used to interpret those signals and to control the sensors, LCD, alarm and emergency lamp. Whereas the PIC16F84A at the transmitter part is used to order the transmitter to transmit signals changes to the receiver.

Results show that emergency and normal signals transmit wirelessly to a remote station and then display the room numbers and the condition of the rooms on the LCD, e.g. “ROOM 2: NORMAL”. The alarm and emergency lamp are triggered when a fire occurs and off when the fire stops. Then the device is back to its normal operation.