

## **ABSTRACT**

*The discovery of wireless technology gives a great influence in many ways, particularly in the telco world. Since it was first raised, wireless technology continues to grow rapidly to bring the technology - the new technology. One is the emergence of Wireless Sensor Network technology., Wireless Sensor Network is an embedded system wireless network device that consists of a large number of sensor nodes, in which there are one or more sensors and equipped with a communication system to send and receive data. With the capabilities of the sensors are connected to the communication system that can help us for communication, monitoring, tracking and controlling. Application of Wireless Sensor Network technology innovation is one of the solutions to implement a security system in the building. In this final project prototype designed using sensors Pasive infra red to be placed in any room which will detect the movement, then the data is sent to a microcontroller Arduino Nano through node - the node is equipped with a module nrf24 as Liaison wireless between the sensor and the microcontroller is programmed using a language C and the Arduino software, and connected using Bluetooth and display interface android created by APP Inventor to know which room to the movement.*

**Keywords:** *Wireless sensor network, Pasive infra red, nrf24, Arduino Nano, APP Inventor*