Abstract

In the past and present firefighting still represents a dangerous job so the best way to avoid or reduce this dangerous is by detect the fire in its simplest form.

in the Complex of Sudanese gas companies they use a manual system and its ineffective because its lowest response time and recovery mechanism since it depends totally on human in all of the recovery procedure (Detection of fire or leakage of gas, alarms and warning, communication with civilian defense by regular phone, turn off the electrical power and turn on the water pump manually). This dependency results in loosing of human life as well as the wealth of the companies.

All of the above lead to increase the risk that reflect in department damage, loss of materials and resources & the safety of the human life.

The goal of this thesis is to develop the firefighting system and we will do that by reducing the risks which facing workers, improving the response time of detectingFire or gas leakage and make the communication with the civilian defense more quickly.

In this project the simulation of the circuit was done using Proteus and the output is represents our actions which happens after detecting fire or gas.