



FINAL YEAR PROJECT REPORT

SMART FIRE PROTECTION SYSTEM

**In fulfillment of the requirement
For degree of
BE (Electronics)**

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ACKNOWLEDGEMENT

First of all we would like to thank all mighty ALLAH who gave us the knowledge and skills that allowed us to complete our project successfully. Also, Dean of Bahria University Karachi Campus, Dr Altaf Mukati, Head of Department (Engineering and Computer Science) Dr Waheed uz Zaman and our Project Advisor Mr. Burhan Ahmed and Mr. Masood Usman for allowing us and giving us the opportunity to carry out this plan and work on this project and allowing us to use the facilities provided by university. We are also grateful to our Supervisor Mr. Shah Najam-us-Saqib without whose help the implementation of this project would not have been possible. Beside that we appreciate help of all of our Professors for guiding us in proper way from the beginning. We are thankful to our Lab Staff whose advices and suggestions made it possible for us to put efforts and successfully complete our project in due time.

ABSTRACT

The industrial sector throughout the world it is mandatory to follow the rules and regulations of the of the world is giving importance to public safety more than ever. In USA approximately 100-200 billion dollars (2% of their national annual gross product) are spent annually on systems that are solely designed for the purpose of public safety. Keeping in mind the increasing worldwide demand for safety protocols we started our research to identify the reasons for the majority of casualties occurring in industries. Our research led to the conclusion that fire breakouts lead to most casualties.

Smart Fire and Protection System is a prototype model that focuses on solution for a major problem we face today i.e. fire outbreaks in heavily populated industrial complexes and downtown areas of our city. Our project is a complete package which ensures security against fire on multiple levels. The idea behind this project was to solve these problems for our customer at economical price. In our project we are using smoke detectors, RTD, and gas sensors to achieve our goals. Also, the locking mechanism of the main entrance is automated using a proximity sensor. A GSM module is used to send a text message to authorized personnel and appropriate authorities in case of emergencies. Electric locks are placed on the two emergency exits which allow for faster evacuation in case an alarm is sounded. We use PLC to for automation. It's a cost effective and user friendly project that guarantees security against the major causes of fire outbreaks in industrial sector.

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