

**UNIVERSITI TEKNOLOGI MARA**

**GAS LEAKAGE DETECTOR**

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## **ABSTRACT**

Gas leaks present severe threats to property and public safety across various environments, including homes, workplaces, and public spaces. Existing gas detection systems often lack proactive alarms and real-time monitoring, limiting their effectiveness in preventing dangerous situations. Gas leakage is a critical issue in industrial sectors, residential structures, and gas-powered vehicles. Installing gas leakage detection systems is a preventive measure aimed at averting accidents caused by gas leaks. The objective of this project is to create a tool capable of identifying gas leaks and notifying owners to prevent associated challenges. The gas leakage detector can be enhanced by employing sensors to detect gas leaks and activate a buzzer for danger notification. The buzzer serves as a clear sign of a gas leak. The importance of swiftly identifying and halting gas leaks cannot be overstated. This project aims to develop a highly accurate, cost-effective system that detects gas leaks, alerts nearby individuals with a buzzer, and notifies the project's responsible party for initial safety assessments.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background**

Common gases involved in such incidents include natural gas and liquefied petroleum gas (LPG), which are extensively used in households, industries, and commercial establishments throughout the country.

Given the potential hazards associated with gas leaks, Malaysia, like many country, places a strong emphasis on gas safety regulations and preventive measures. The Malaysian government, in conjunction with relevant safety authorities, regularly implements and updates safety protocols to mitigate the risks of gas-related incidents. These efforts aim to safeguard public well-being, protect property, and ensure the environmental sustainability of affected areas.

To access the most recent and accurate information regarding gas leakage incidents in Malaysia, individuals are advised to refer to various sources. Local news outlets often provide real-time updates on safety incidents, and official reports from regulatory bodies offer comprehensive insights into the status of gas safety within the country. Safety organizations in Malaysia may also disseminate valuable information and resources to raise awareness and educate the public about gas safety practices.