

CHAPTER 1

INTRODUCTION

1.1 Background

LPG gas has a major role in a stove that is used for household needs. In Indonesia there are many cases of house fires or explosions caused by human negligence by underestimating the condition of LPG gas that is leaking. Gas leaks can seep into waterways, electrical installations, or under carpets that will be difficult to detect by the sense of smell. Seeing the conditions in this country experienced a lot of explosions originating from LPG gas, so many authors who made the design of a gas detector that leaked. This is very important because it can prevent an explosion or fire caused by a leak in the LPG gas itself.

Various methods used by other writers. Other authors create a gas detector with MQ-6 sensor with Mamdani fuzzy logic algorithm, Tsukamoto Fuzzy Logic and are processed with Real-Time Operating System.

1.2 Problem Formulation

1. Does this tool function properly and accurately?
2. Can the values of sensor send data periodically?
3. Can the battery be a power source from Arduino?
4. Can the telegram send SMS Notification when alerted?

1.3 Scope

- 1.3.1. This tool can function properly
- 1.3.2. It can monitoring value of gas sensor from thingspeak website
- 1.3.3. Sending SMS notification when there was a gas leak via telegram
- 1.3.4. Sending value of gas sensor to thingspeak website periodically.
- 1.3.5. This tool uses a battery as a power source.

1.4 Objective

The first objective, the author can create a gas leak detection device which is marked by a buzzer as an alarm and a fan as a neutralizing gas that spreads and the values of the gas sensor can be monitored from the IoT website called thingspeak. Another goal is that there are no more cases of LPG gas explosion due to gas leaks caused by negligence from users.