

**INVISIBLE BEAM PROPERTY GUARD ALARM SYSTEM  
( ISP2 )**

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## **ABSTRACT**

An alarm system is a device for guarding against unauthorised intrusion of guarded areas. It detects people, animals, vehicles, paths or wherever potential traffic or unauthorised trespassing may take place. It can be made to detect either existing or entering traffic. Lights, sunlight, leaves or other potential false triggers do not bother it.

The link use between transmitter and receiver is infrared energy pulses because of its invisibility from detected by potential intruder. The infrared energy pulses that present between the transmitter and receiver acts as beam sensor that guarded the areas.

In this project report, hardware of alarm system was constructed. The simulation and experimental results proved the successfully of hardware construction.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

An alarm system is a device that can design in many ways to alert or protect humans, animals, buildings, vehicles, factory, nuclear power plant, houses and others. Nowadays, many types of alarm system device was design for a many reason and purpose. Alarm system for vehicle security, alarm for fire/heat detection, alarm correlation and fault identification in communication networks, alarm for detecting smoke, alarm reduction in nuclear power plant, an optical alarm expert system for vacuum traps and an acoustic abnormal detection system.

Invisible beam property alarm system is type of alarm for detecting intruder such as humans, animals, vehicles and other unauthorised objects that may enter to the commercial property such as houses, store, factory and shopping complex.

The explosive growth of housing, shopping complex, jewellery store and other commercial premises need protection against unauthorised persons. Nowadays this type of alarm system required because its reliability over just hired a security guard because human have a limited working hour, they not effective during overnight.

Installing an alarm system ensure that reliability of the protected areas are safe. They also offer flexibility over large areas to protect. The chosen of infrared as a beam of protected area is its invisibility from detected by intruder. The other type of sensor is laser microwave and fibre-optic sensor. The advantage infrared over this type of sensor is its visible, the infrared communication has an abundance of bandwidth, and offer high-speed link without regulation, low cost to construct a device produced infrared and low power consumption [4,5,6].