

Republic of Iraq
Ministry of Higher Education and
Scientific Research
University of Babylon
College of Information Technology
Department of Information
Network



Internet Of Thing Based Home Security System Using Computer Vision Technology

BY

Fatima Al-Zahraa Faleh Abd Alhadi

Supervised By

Dr . Tariq Alwan Kadhum

2024

Abstract

Home alarm is a set of procedures and technologies aimed at protecting homes and residents from biochemical such as bacteria, fires and pests. It includes home security technologies, alarm systems, surveillance cameras, security locks, remote control systems that can be controlled via smartphones, and other details of the security and protection of the home and its residents. The purpose of house alarm systems is to give homeowners and their properties a feeling of security and protection. Alarm systems, security cameras, security locks, remote control systems, environmental sensors, and integration with home automation are just a few of the technologies and techniques that these systems use to identify and address any threats. These technologies and processes work together in house alarm systems to offer complete security, ward off possible attacks, and give homeowners piece of mind. It's crucial to remember that the manufacturer and system complexity may have an impact on particular features and capabilities. Among the tools used are an Arduino, a motion sensor, an Esp32 camera, and a USB-TTL UART module. When you connect the Arduino cable and the USB-TTL UART module to the computer, the connection works. The motion sensor detects movement and the Esp32 camera takes pictures. As a result, you get a simplified home security system to provide security for the family.