MES COLLEGE OF ENGINEERING, KUTTIPPURAM
DEPARTMENT OF COMPUTER APPLICATIONS
20MCA245 – MINI PROJECT

PRO FORMA FOR THE APPROVAL OF THE THIRD SEMESTER MINI PROJECT

(Note: All entries of the pro forma for approval should be filled up with appropriate and complete information. Incomplete Pro forma of approval in any respect will be rejected.)

Mini Project Proposal No : _____ *(Filled by the Department)*	Academic Year : 2020-2022 Year of Admission : 2020

1. Title of the Project : SMART HOME SECURITY AND AUTOMATION SYSTEM USING IOT
2. Name of the Guide : Dr.GEEVAR C ZACHARIAS
3. Number of the Student: MES20MCA-2015
4. Student Details

Name (in BLOCK LETTERS)	Roll Number	Signature
1. DEEPIKA BALAKRISHNAN C	15	

Date:07/12/2021

Approval Status : Approved / Not Approved

Signature of Committee Members

Comments of The Mini Project Guide Dated Signature

Initial Submission :

First Review :

Second Review :

Comments of The Project Coordinator Dated Signature

Initial Submission:

First Review

Second Review

Final Comments: Dated Signature of HOD

SMART HOME SECURITY AND AUTOMATION SYSTEM USING IOT

DEEPIKA BALAKRISHNAN C

INTRODUCTION

Home automation is gaining popularity nowadays. Today, we are entering post-PC era where mobile devices are handling daily tasks that traditional desktop and laptop computers once handled. Several reports show that personal computers are no longer on the leading the edge of computing and the use of mobile devices are quickly taking over. A smart home automation system is based on controlling light and fan and making user life easier.

The project mainly consists of three parts, Android Application, Controlling Electronic devices, and Security module. The Android Application enables the user to Search for nearby Bluetooth devices; connect to one of them, then send some data to the connected device through USART serial interface.

In this paper, a solution to transform a normal house to a smart house while reducing the energy consumption is proposed. This can be realized with the help of wireless sensor networks.

The Android phone is integrated into the system which allows the control of the light and fan in the house. The protocol model is developed to demonstrate the effective utilizations of Android phone in home automation.

OBJECTIVES

1. Home surveillance and security feature makes house protection high
2. From anywhere we can on or off our home appliances, which provides better usage of devices
3. User can get the list of persons who visits home easily

TOOLS / PLATFORM, HARDWARE AND SOFTWARE REQUIREMENT

Hardware Requirements

- Input Device : Mouse, Keyboard
- Output Device : Monitor
- Memory : 4 Gb Ram (Minimum)
- Processor : Intel core i3 or above

Software Requirements

- Operating System : Windows 8 /10for Better Performance
- Front End : Python (Flask)

- Back End : MySQL
- Software Used : PyCharm

PROBLEM DEFINITION AND INITIAL REQUIREMENTS

CCTV based systems are failed to provide service like house security and monitoring. Searching CCTV visual is time consuming task.

BASIC FUNCTIONALITIES OF THE PROJECT

Main modules are,

- Home surveillance using dlib based face recognition
- Automatic management of visitor logs
- Device on or off from any place using android devices
- Face recognition based smart info broadcasting to owner