Modern University for Technology and Information
The Faculty of Computers & Artificial Intelligence

Department: ……**Computer Science**……

ALLOCATION OF FINAL PROJECT

1. Basic Information:

1) Field:
Computer Science

2) Title of Project:

Design and Implementation of a Smart Door Lock

3) Semester: Fall 2023

Group members

1) John Safwat Boles Eskander	• **جون صفوت بولس إسكندر**
2) Abdelrahman Mosaad Abdelrahman Mohamed	• **عبدالرحمن مسعد عبدالرحمن محمد**
3) Dawood Elsabah Mahmoud Abdelaziz	• **داوود الصباح محمود عبدالعزيز عوض**
4) Sherif Sayed Abdallah Ahmed Taha	• **شريف سيد عبدالله أحمد طه**
5) Ahmed Yassen Essam el-din Darwesh	• **أحمد يس عصام الدين درويش**
6) Mohamed Maher Saied Nasser	• **محمد ماهر سعيد ناصر سابق**
7) Mohammed Mahmoud Ebrahem Eid	• **محمد محمود إبراهيم عيد**
8) Saif El-said El-Said Ahmed El-Saied	• **سيف السيد السيد أحمد السيد إمام الزهيري**

4) Supervisor:
Prof. Dr. Gouda Ismail
TA. Gerges Mourad

5) Consultant(s):
None

6) Allocation received on:
Oct 2023

7) Expected Date of Submission:
June 2024

2. Description Of The Task :

This project builds a system to help people feel safe at their homes. The system helps people to know who is behind the door. This system home owner can access the Mobile App with username and password and then if any guest come to his/her home the device will capture an image of his/her using Raspberry pi and send it to the owner by wifi, then the owner will decide either to open the door or not. Finally, this system will increase safety and privacy, save time. Help the elderly, employees and people with special needs**:**

The main tasks of the project are:

1. Gather the necessary components. You will need a Raspberry Pi, a camera module, a relay module, a power supply, and some jumper wires.
2. Set up the Raspberry Pi. This includes installing the operating system and the necessary software.
3. Connect the camera module to the Raspberry Pi.
4. Connect the relay module to the Raspberry Pi.
5. Write the code to capture an image of the person at the door and send it to the owner's Mobile App.
6. Configure the Mobile App so that the owner can view the images and decide whether to open the door.
7. Integration and testing of the implemented sub-modules.
8. Project Report Writing (all)

Some additional tips for building this system:

1) Use a high-quality camera module to ensure that the images are clear and sharp.
2) Use a secure connection to transmit the images to the owner's Mobile App.
3) Make sure that the system is easy to use for both the owner and the guests.

3. Time Schedule:

No.	Date	Task	Responsible
1	Oct. 2023	Problem Definition	All
2	November. 2023	Literature survey on smart Door lock commercial products and research projects and its limitations	**1) John Safwat Boles** **2) Dawood Elsabah Mahmoud** **3) Mohammed Mahmoud** **4) Mohamed Maher**
3		Specify functional block diagram of the proposed solution	**1) Sherif Sayed Abdallah** **2) Abdelrahman Mosaad** **3) Saif El-said El-Said** **4) Ahmed Yassen Essam**
4	December 2023	Set up the Raspberry Pi. This includes installing the operating system and the necessary software	**All**
		Write the code to of the owner's Mobile App	**1) John Safwat Boles** **2) Sherif Sayed Abdallah**
5	Jan..20 24	Write the code to capture an image of the person at the door and send it to the owner's Mobile App	**3) Abdelrahman Mosaad** **4) Mohmed Mahmoud**
6	Feb. .2024	Configure the Mobile App so that the owner can view the images and decide whether to open the door	**5) Ahmed Yassen Essam** **6) Mohamed Maher**
7	March-April. 2024	Integration and testing of the implemented sub-modules	**7) Dawood Elasbah Mahmoud** **8) Saif El-Said EL-Said**
8	May.2024	Report Writing	**All**
9	May.2024	Presentation preparation	**All**
10	June 2024	Submission of the project	**All**

4. Method Of Assessment:

1) Year Work (20% for each Semester) 40%
2) Report Evaluation 40%
3) Oral Defense & Presentation 20%

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Supervisor Head Of Department Dean Of Faculty