

Methodology :

We analyzed the similar systems that are produced until today. We observed lots of products which are good and can make sense extremely. In one point, we saw they were insufficient. Then, we thought to bring a breath of fresh air with our combination of beneficial structures. Firstly, we want to describe usual parts of our system. Absolutely, remote light control and sensors should be in system. We do not know that when we will encounter a burglary situation. Sensors that are situated in every crucial points of home, will provide to receive notifications to our mobile phone instantly. Therefore, we will be able to call police department and if we are close to home, we will try to reach home. Before a burglary situation we can change something in burglars mind. How can we do this? It is possible to make feel them with sight of someone is in home. Moreover, we have two more things to burglars in our system. One of them is pull-down shutter system. It profits to make our home more secure against to burglars that will try to enter our home from windows but he will not achieve. There should not be any window opened. Then they will try to enter from front door but it will not be possible too. We will produce a locking system that can be controlled remotely. Until the last part of our systems was about securing the home against burglars. Lastly, we have another component that is about security issue but not against burglars. It is a water flood preventer. This component will know people's daily habits and will be able to catch if there is usage above boundaries. In addition to this feature, we will be able to cut the water remotely. Sometimes with water cut, we can forget the taps opened. Then, we are beginning to suspect that if I had left taps opened. We will prevent people from this. This was wide explanation of our project. Actually, our project will be a green project with last feature besides being unique in some points. We will provide water saving about water flood. Our product will be easy to use. It will be installed easily from an installer. There is no need for adding something from outside to the system. Then, it will be improvable with new features. Technology does not wait, it is changing day by day. We decided to use Arduino and Android mobile operating system. Arduino is a popular open-source single-board microcontroller, descendant of the open-source Wiring platform, designed to make the process of using electronics in multidisciplinary projects more accessible and Android is an open-source operating system used for smartphones and tablet computers. Development in Android depends on Java. All we know Java in project team. We will use Eclipse IDE for Android application of our project. For using the Arduino, we will deal with Arduino IDE which allows coding with C language. We have six steps in our project and these six steps have sub-steps. Project Management phase is first of them. It started with deciding the project team and the subject. Then, we wrote the proposal and planned the schedule. We used MS Project tool for planning schedule. Secondly, we have Conception phase that we have some in depth researching in analyzing the our system and other systems. Thirdly, in Planning phase we will decide to some softwares and hardwares that we will use according to benefit issue. After collecting the all requirements, we will have the budget of project. Fourthly, we will be in most important phase of project. It is Design and Development phase. In this phase, we will link our hardwares and will start to write codes. After the connection with mobile phone, we will have a prototype. We can pass to Testing phase in fifth step. We should test our

prototype. Monitoring the softwares and hardwares and debugging is so crucial for end product. After analyzing result, we will be in Result phase that consists conclusion parts. We will prepare presentation of our project and will assign the graduation project. Lastly, we will present.

1. GRADUATION PROJECT

1.1 PROJECT MANAGEMENT

- 1.1.1 Deciding Project team
- 1.1.2 Project Kick-off Meeting
- 1.1.3 Writing Proposal
- 1.1.4 Develop Project Schedule

1.2 CONCEPTION

- 1.2.1 Reviewing Similar Systems
- 1.2.2 Gather Requirements
- 1.2.3 Analyzing Requirements
- 1.2.4 Meeting with professionals

1.3 PLANNING

- 1.3.1 Analyzing similar systems
- 1.3.2 Choosing the proper softwares and hardwares
- 1.3.3 Explanation of chosen software and hardware
- 1.3.4 Planning Budget

1.4 DESIGN AND DEVELOPMENT

- 1.4.1 Linking the hardwares
- 1.4.2 Coding
- 1.4.3 Installing software to products
- 1.4.4 Creating connection via MobilePhone
- 1.4.5 Creating Prototype

1.5 TESTING

- 1.5.1 Testing the Prototype
- 1.5.2 Monitoring the hardware and software
- 1.5.3 Analyzing Results
- 1.5.4 Reviewing System

1.6 RESULT

- 1.6.1 Analyzing Final Results
- 1.6.2 Conculusions
- 1.6.3 Preparation of Presentation
- 1.6.4 Assinging the Graduation Project
- 1.6.5 Presentation