Final Year Project Proposal

**International Islamic University Islamabad**

*Department of Computer Science & Software Engineering*

*Faculty of Basic and Applied Sciences*

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|  | **FOR OFFICE USE ONLY** |
| Approved | Yes No |

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| **Checked & Approved/Not Approved By:**  Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    Day Month Year | | | | | | | | | | | |
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| **PROJECT TITLE:** | 3D Mapping Tool for IOT Devices |

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| **STUDENT INFORMATION** | | |  |  |
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| **VERSION CONTROL** |
| **Version 1.0** |

PROBLEM STATEMENT

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| |  |  | | --- | --- | | The problem of | Mapping of IOT devices in a building is difficult to visualized. | | Affects | Improperly secured Internet of Things have been commandeered by bot herders. | | the impact of which is | Time wastage and Negative Feedback | | a successful solution would be | A simple Tool to visualize 3D Building and Mapping of IOT Devices . | |
| **EXECUTIVE SUMMARY** |
| *O*ur project is based is on creating an IOT devices tool that can map IOT devices. Basically we are working on a project that is based on concept of smart houses . The idea of a smart home might make you think of George Jetson and his futuristic abode or maybe Bill Gates, who spent more than $100 million building his smart home .Once a draw for the tech-savvy or the wealthy, smart homes and home automation are becoming more common.  What used to be a quirky industry that churned out hard-to-use and frilly products is finally maturing into a full-blown consumer trend. Instead of start-up companies, more established tech organizations are launching new smart home products. Sales of automation systems could grow to around $9.5 billion by 2015. By 2017, that number could balloon to $44 billion .  Much of this is due to the jaw-dropping success of smartphones and tablet computers. These ultra-portable computers are everywhere, and their constant Internet connections means they can be configured to control myriad other online devices. It's all about the Internet of Things.The Internet of Things is a phrase that refers to the objects and products that are interconnected and identifiable through digital networks. This web-like sprawl of products is getting bigger and better every day. All of the electronics in your home are fair game for this tech revolution, from your fridge to your furnace. |

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| **INTRODUCTION** |
| |  | | --- | | Our Project is based on creating a visualization tool for IOT Devices. Smart Homes are becoming popular in these days and with the modern advancement of IOT and artificial intelligence the need of smart homes in our society become essential. A home automation system typically connects controlled devices to a central hub or "gateway". The [user interface](https://en.wikipedia.org/wiki/User_interface) for control of the system uses either wall-mounted terminals, tablet or desktop computers, a mobile phone application, or a Web interface, that may also be accessible off-site through the Internet. While there are many competing vendors, there are very few worldwide accepted industry standards and the smart home space is heavily fragmented. Manufacturers often prevent independent implementations by withholding documentation and by litigation So There is a tool that is required to automate these houses and map how these devices work. Our project is based on creating a tool that can create 3D houses and we can navigate from one room to other . |   **COMPETITORS/COMPETITIVE ANALYSIS**  *.* |
| As we have a not lot of platforms where we create mapping of houses, floorplanner is one of the best example among those but they are quite different from our product. First key difference is that our product is a mapping tool for IOT Devices not simple like creating walls. Floor Planner does not know on why we made houses .In general Our Product also create a exporter for AutoCad where maps of AutoCad can be imported . |

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| **OBJECTIVES**  *.* |
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| 3D Mapping is an intuitive, web-based room design application for interior designers, homeowners, and real estate agents. It’s an easy-to-use solution that allows all including novice architects to design optimized office developments and lavishly decorated homes. The software utilizes flash programming technology and provides multiple options for wall coverings, flooring, objects and furniture to allow users to come up with interactive floor plans and share designs with clients online.  It enables users to leverage graphical props and perfect measurements to determine the precise floor space they need to achieve their goals. The ability to view room designs in 3D and the great things offered make it one of the best free online room design tool.  Some of the salient features offered by this application include 3D render. |
| **MOTIVATION** |
| Our System will lead to business motivation. In countries like Pakistan where the software industry is growing in development stage, a system must need to fulfill business requirements. Our System not only expand our business need but also fulfill the need of user interactive system. A system that make mapping phenomenon quite simple and easy must be required. Our system will focus on mainly user interactive and adaptable Mapping System. |

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| **REQUIREMENTS** | |
| It will must have adaptable interface for types of Users. | |
|  | It will have a proper categories of different Floorplans. |
|  | It will must have a system to Build 3D mapping of Houses. |
|  | It should must Provide an Online tool for IOT Devices. |
|  | It should provide exporter for AutoCAD. |
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| **FEATURES OF PROJECT**   * Build 3d Visualization of IOT Devices * Exporter for AutoCAD (AutoCAD Files Import in 3DMax ) * Inner and Outer Walls with Door and Window Spaces * Adding a 3D Roof * 3D Devices can be Tracked in playground. |

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| **ARCHITECTURAL DESIGN**  *.* |
| ***Exporter***  ***3D Visualization***  **Web View**  **User** |

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| **IMPLEMENTATION TOOLS AND TECHNIQUES** |
| Mean Stack  Mongo Db  Express Framework  Angular  Node Js  BabyLon js |

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| **PROJECT PLAN** |
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| **REFERENCES** |
| <https://www.floorPlaner.com/> |