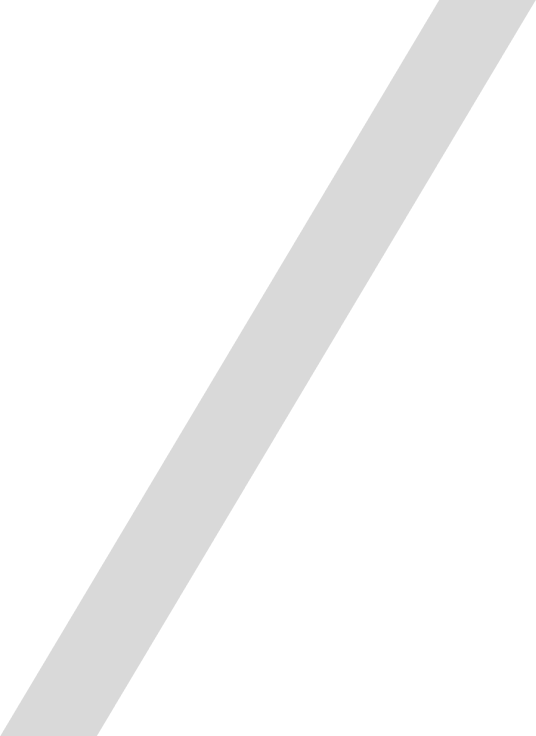
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| Interactive Department Map |

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Team 6

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| PROJECT PROPOSAL |

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| Overview The aim of this project is to develop an up to date web-based 3D map for the Department of Computer Engineering building including all labs, staff rooms, server room, lecture rooms etc. and link relevant information of staff members then the users will be able to access them in a convenient way. Objectives  * Providing and 3D interactive Map of the Department to the visitors * Ease to contact department lecturers * Make it easy to find a particular place (ex: labs, lecture rooms) * Providing information about department lecturers via their webpages  Problem Domain It is common to see that there’re visitors to the Department and usually they would ask someone about the particular person or the place. As almost everyone is having a busy schedule here it would be inconvenient for both of the parties.  Also, sometimes it is possible to have conflicts in identifying the needed person due to same names, etc. Considering these facts, it is obvious that this typical methods waste time and effort. Solution and Specifications As a solution this web-based application can be introduced that anyone can access anytime easily. Here it facilitates user to search for the place they expect to visit or the or person they want to meet. Then it will direct them to that particular place with relevant floor number in the 3D model. Also, it directly linked to the official pages of the department lecturers. So, they can easily access the necessary details like contact information etc. conveniently.  And another specification about this 3D map is when user can experience on the way along to that place in a realistic manner and by clicking on a particular place, they can see the relevant information about the place. | | |
| Solution Architecture   Our web-based application mainly consists of 3 parts; **User interface, 3D model and the Information panel.**  User Interface will get the user input of name of the lecturer or the building which they want to search for. Then relevant data will be retrieved from the database and it will navigate to that particular place in the 3D model. At the same time relevant information will be displayed on the information panel. This process is handled by the controller. Department website is linked to information panel as well as the web page such that user can directly access the information about the relevant lecturer.  The other approach of this system is navigating through the map. It will get commands(directions) from the user from the arrow keys and navigate through the whole model which consists of all 4 floors inside and outside. These movements are handled by three.js program and blender is used for creating 3D objects. Those objects and data will be retrieved from a local database as necessarily. | | |
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-sample model demonstrating the information panel -

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| Technology StackTHREE.JS Is a [cross-browser](https://en.wikipedia.org/wiki/Cross-browser) [JavaScript library](https://en.wikipedia.org/wiki/JavaScript_library) and [application programming interface](https://en.wikipedia.org/wiki/Application_programming_interface) (API) used to create and display animated [3D computer graphics](https://en.wikipedia.org/wiki/3D_computer_graphics) in a [web browser](https://en.wikipedia.org/wiki/Web_browser) using [WebGL](https://en.wikipedia.org/wiki/WebGL) -Wikipedia - |  |
| BLENDER Is a [free and open-source](https://en.wikipedia.org/wiki/Free_and_open-source_software) [3D computer graphics](https://en.wikipedia.org/wiki/3D_computer_graphics) software toolset used for creating [animated films](https://en.wikipedia.org/wiki/Animation), [visual effects](https://en.wikipedia.org/wiki/Visual_effects), art, [3D-printed](https://en.wikipedia.org/wiki/3D_printing) models, [motion graphics](https://en.wikipedia.org/wiki/Motion_graphics), interactive 3D applications, [virtual reality](https://en.wikipedia.org/wiki/Virtual_reality), and, formerly, [video games](https://en.wikipedia.org/wiki/Video_game). Blender's features include [3D modelling](https://en.wikipedia.org/wiki/3D_modeling), [UV mapping](https://en.wikipedia.org/wiki/UV_mapping), [texturing](https://en.wikipedia.org/wiki/Texture_mapping), [digital drawing](https://en.wikipedia.org/wiki/Digital_illustration), [raster graphics editing](https://en.wikipedia.org/wiki/Raster_graphics_editor), [rigging and skinning](https://en.wikipedia.org/wiki/Skeletal_animation), [fluid and smoke simulation](https://en.wikipedia.org/wiki/Fluid_animation), [particle](https://en.wikipedia.org/wiki/Particle_system) simulation, [soft body](https://en.wikipedia.org/wiki/Soft_body_dynamics) simulation, [sculpting](https://en.wikipedia.org/wiki/Digital_sculpting), [animation](https://en.wikipedia.org/wiki/Computer_animation), [match moving](https://en.wikipedia.org/wiki/Match_moving), [rendering](https://en.wikipedia.org/wiki/Rendering_(computer_graphics)), motion graphics, [video editing](https://en.wikipedia.org/wiki/Video_editing_software), and [compositing](https://en.wikipedia.org/wiki/Compositing). -Wikipedia - |

## UNDERLYING CODE

* HTML
* CSS
* Java Script
* SQL

## Time Line

## Reference Links

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