

## **CS Department Website**



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# 1 Relevant System Comparison

TABLE 1: Comparison of current Computer Science Department UET website with new Computer Science Department UET website

| Aspect                        | Current CS Website   | New CS Website   |
|-------------------------------|--|--|
| <b>Technology Stack</b>       | WordPress  | SEAN(MySQL,Express,Angular and Node)   |
| <b>Efficiency</b>             | Its navigation is very slow when the user clicks on navigation it takes almost 5 to 10 seconds to load the next navigate page because all the components has to be load again so the efficiency of current website is decreases. | Using the sean stack navigation will be much faster then the previous one because angular(frontend) provides routing which doesnt require the website components to be loaded again so in this way its efficiency increases. |
| <b>Backend system</b>         | As it is made in wordpress which provides the drag and drop feature that means just click on the item and drag and drop it on the website so drag and drop becomes its backend system.   | Admin Panel will only contain the data that to be changes in the website its advantage it that the admin doesnt have to make changes in website again and again admin panel will provide all facilities.                     |
| <b>Responsiveness</b>         | The current website is not responsive when we check the responsiveness of the website some things of website are hids that have negative impact.   | The website we are creating will be the responsive and doesn't hid anything.   |
| <b>Feedback or Contact-us</b> | Current website doesn't provide any feedback or contact us form that facilities the user.  | To overcome the problem we have developed a form so that the user can give its feedback or contact us by filling the form.   |
| <b>Facilities</b>             | It provides facilities to only students by tell the necessary thing needs for admission or the eligibility Criteria .  | Our website will provides all the facilities of current website plus we will provide a form for the alumni registration so that the alumni student register through department website instead of university website.        |

TABLE 2: U01: Faculty Information

|  |
|--|
| <b><u>ID: Faculty-0001</u></b>   |
| <b><u>Name: Faculty Information</u></b>  |
| <b>Functional Requirement</b>  |
| <p>Here are the functional requirements:</p> <ul style="list-style-type: none"> <li>• Faculty person name</li> <li>• Faculty person email as given by the university server room</li> <li>• Their role i.e Professor, Dean, Associate Professor, Lecturer or Teaching fellow.</li> </ul> |

TABLE 3: U02: ContactUS

|  |
|--|
| <b><u>ID:ContactUS-0002</u></b>  |
| <b><u>Name: ContactUS</u></b>  |
| <b>Functional Requirement</b>  |
| <p>Here are the functional requirements:</p> <ul style="list-style-type: none"> <li>• Users email should be valid</li> <li>• Subject and Message of users should be relevant to the department policy otherwise admin will not receive the message.</li> </ul> |

TABLE 4: U03: Academics

|  |
|--|
| <b><u>ID:Academics-0003</u></b>  |
| <b><u>Name: Academics</u></b>  |
| <b>Functional Requirement</b>  |
| <p>In Academics there are three programs i.e BSc Computer Science MSc Computer Science and PHD Computer Science. Here are functional requirements of all programs:</p> <ul style="list-style-type: none"> <li>• Fee's structure of all parts should be know as fee fluctuate.</li> <li>• Eligibility Criteria should be know.</li> <li>• All program should be verified by NCEAC.</li> </ul> |

TABLE 5: U04: Alumni

|   |
|---|
| <b><u>ID:Alumni-0004</u></b>  |
| <b><u>Name: Alumni</u></b>  |
| <b>Functional Requirement</b>   |
| Here are functional requirements: <ul style="list-style-type: none"> <li>• Alumni form should be on website so that alumni student can register.</li> <li>• Alumni form consist of name, email , university registration number, department and campus name.</li> </ul> |

TABLE 6: U05: Department Ranking and Faculty

|  |
|--|
| <b><u>ID:Department Ranking and Faculty-0005</u></b>   |
| <b><u>Name:Department Ranking and Faculty</u></b>  |
| <b>Functional Requirement</b>  |
| Here are the functional requirements: <ul style="list-style-type: none"> <li>• Faculty Strength and their Publication should be know and verified by the Department in charge.</li> <li>• Department ranking should be according to the QS ranking.</li> </ul> |

TABLE 7: U06: Research

|  |
|--|
| <b><u>ID:Research -0006</u></b>  |
| <b><u>Name:Research</u></b>  |
| <b>Functional Requirement</b>  |
| Research are divided into three parts i,e research guidelines,labs and groups. Here are the functional requirements: <ul style="list-style-type: none"> <li>• All guidelines of research are verified by the chairperson.</li> <li>• All research lab are verified by chairperson.</li> <li>• All groups should mention their names , research domain and area of interest</li> <li>• All verification will be uploaded to the website.</li> </ul> |

TABLE 8: U07: Industry Information

|  |
|--|
| <b><u>ID:Industry Information -0007</u></b>  |
| <b><u>Name:Industry Information</u></b>  |
| <b>Functional Requirement</b>  |
| Here are the functional requirements: <ul style="list-style-type: none"> <li>• All the industry affiliated with department should be verified by chairperson.</li> <li>• All partnership industries logo will be uploaded on website.</li> </ul> |

TABLE 9: U08: Department Events

|  |
|--|
| <b><u>ID:Department Events -0008</u></b>   |
| <b><u>Name:Department Events</u></b>   |
| <b>Functional Requirement</b>  |
| Here are functional requirements: <ul style="list-style-type: none"> <li>• Events detail i.e name , hosted by and hosted where and organized by.</li> <li>• Events should be recognised by the chairperson.</li> </ul> |

TABLE 10: U9: Announcements

|  |
|--|
| <b><u>ID:Announcements -0009</u></b>   |
| <b><u>Name:Announcements</u></b>   |
| <b>Functional Requirement</b>  |
| Here are the functional requirements: <ul style="list-style-type: none"> <li>• All the particular announcements made by the department should be added to the website.</li> <li>• All the necessary things needed for admission to the university should be on the website.</li> </ul> |

TABLE 11: U10: News/ Articles

|  |
|--|
| <b><u>ID:News -00010</u></b>   |
| <b><u>Name:News</u></b>  |
| <b>Functional Requirement</b>  |
| Here are the functional requirements: <ul style="list-style-type: none"> <li>• Image of the recent articles or blogs</li> <li>• Description of the recent articles if any</li> </ul> |

TABLE 12: U011: Student Resources

|   |
|---|
| <b><u>ID:Student Resources -00011</u></b>   |
| <b><u>Name:Student Resources</u></b>  |
| <b>Functional Requirement</b>   |
| Here are functional requirements: <ul style="list-style-type: none"> <li>• Department timetable of all session should be verified by the chairperson.</li> <li>• Timetable should consist of each lecture timings.</li> </ul> |

## 2 Feasibility Study

### 2.1 Technical

The development of a CS department website is an ideal fit for the SEAN stack and our group members have essential skills in typeScript,Express.js, Angular, MySQL, and Node.js. The website will be compatible with various devices and browsers, providing an optimal user experience.

### 2.2 Operational

The CS department website will have a clean design for simple navigation, and user testing and feedback will be gathered to ensure that the website is working and meet user demands. The admin can easily update and also it supports future development and new features in the future.

### 2.3 Economic

To determine the economic cost of our CS Department website, we used the COCOMO model. We calculate that our project size is medium, and the expertise level of our group members is intermediate, based on the number of pages, level of complexity and functionality of website.

| Phase                    | Size Estimation (KLOC) | Effort Estimation (Person-Months) |
|--------------------------|------------------------|-----------------------------------|
| Requirements Analysis    | 100                    | 1.5                               |
| Design                   | 100                    | 2.5                               |
| Implementation           | 400                    | 10                                |
| Testing                  | 150                    | 3.5                               |
| Integration & Deployment | 50                     | 1.5                               |
| Documentation            | 30                     | 1                                 |
| Maintenance & Support    | 50                     | 1.5                               |
| <b>Total</b>             | <b>880</b>             | <b>21</b>                         |

## **2.4 Schedule and Time**

For our final project, we are going to develop a website to the computer science department. Project Proposal, Requirements Gathering, Wireframe Design, Database Design, Frontend Development, Backend Development, Integration and Testing, Deployment and Launch, Ongoing Maintenance, and Final Report are among the phases of a project. We will follow the schedule, making sure that each phase is finished on time. Our objective is to develop a superior website that satisfies departmental objectives and offers an outstanding user experience.

## **2.5 Legal and Ethical**

The utilization of resources during the development of the CS department website while keeping moral standards, all written content, images, and other materials utilized on the site will adhere to copyright rules and regulations.