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# QUADRO TECH

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***Abstract*— The aspiration of Project Management is to aid the aspirants with superior communication and controlling esteems in order to produce the desirable outcome. The Final Year Project is considered as the aggregate and one of the extensive constituent of the Bachelors of Engineering Degree. It is a predominant course for final year students and a manifesto where students can utilize their knowledge and skills they learned during their academic course and become prepared for the needed practical skills in the industry and outside world. However, there are many problems and issues faced by the students amid the project as they find difficulties in managing the project work. Consequently, the anent faculty of project also face barriers in the absence of a systematic approach to observe the progress of the project. This study aims to proposes the implementation of the Final Year Project Management System for monitoring and supervising the progress in accordance to the project of the students. This system tends to interface the students and their concerned administrative supervision.**

***Keywords*— Final Year Project, Project Management, Monitoring, Project Controlling and Online Project Handling**

## I. INTRODUCTION

A Project can be thought of as a well defined consequent sequence of tasks that must be fulfilled in order to meet the project's goals. In the study of Bachelor's Engineering, along with the theoretical and practical courses the students happen to graduate after the completion of their final year project. The final year project is quite arduous stage where the students manifest their ability to apply the knowledge and skills they have obtained throughout their tenure as engineering students. The project duration is one year where the students of a team/group co-operatively work together and perform all of the varied task that are predefined by the GTU. It includes make sheets, uploading PPR's and designing and implementing the project domain defined by them. The group of student works on a particular characterized domain chosen by them and practice implementing it. Managing the projects manually is very stressful job.

It is quite tedious as all the group members reside at different location and requires them to meet often for the accomplishment of their project work. And also an active contact is required between the team and their guide which is quite difficult to maintain. Due to such consequences some students find Final Year Project hard to follow and may end up with less productive result or even fail to meet the objectives.Therefore, these problems depict the need to develop a systematic approach for better monitoring of the project's progress and assure that they remain on the right track and ultimately complete the project. The project work is recorded manually so far till date but manually recorded data is error prone and vulnerable. In case if the students miss out their meeting with their faculty guide they need to arrange it again and becomes time consuming. Many students remain unaware about the information about some important notifications and updates related to their projects. Also, students can't keep track of their project related activities. It becomes very convenient for them, if all the details and updates of the project through the guides and the coordinator is directly approachable and automatically available to students. Project management primarily focuses on planning, managing and organizing the available resources. Some of the activities that should be a part of project management activity are to efficiently guide the project team through all phases and execute the project successfully.To alleviate these unavoidable problems the Project Management System has been developed. With this , the students can retrieve the given work information updates, complete the work in given time. First of all students have to register in the system using the registration form. Registered students can then enter the system using their ID and password to obtain certification. When students enter the system, they will form their own groups. Likewise, the project guide must log into the system using its ID and password. PMS allows a group of students to provide at least three project domains and then the system will automatically assign guides to the group of students.

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The Project Coordinator is the core aspect of the system that will provide various tasks to the students. Project coordinators and project guides can coordinate with each other. Based on various criteria, tasks are assigned by the coordinator and a progress chart of the group is created. We are using a task fragmentation structure to create a progress chart. The system functions to be capable of further generating reports which will allow the Chief examiner to view the student's achievement report. While the faculties (Guide and Coordinator) can broadcast the project updates and assign task with due dates and keep a track on the student's progress.

## II. Related Work

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### *A. Data Analysis*

The Existing system of project management is manual and is documented in file system. All the activities and tasks performed by the students as a team are examined and stored in file system in this automated era. The teachers have to allocate the marks by keeping in mind the performances of each student. This can be very tedious. And the date of submission is also to be noted. The students have to plan for appointments in order to arrange for meetings. Such frequent contacts are required but are merely not possible in many cases. The existing system does not help users to get right information at right time and user cannot manage project development easily to achieve the main goal.

### *B. Need of Project Management System*

The Factors that promote the development of such an implementation are the below described.

a) All the activities are done and recorded manually.
b) Active contact between team and guide cannot be maintained.
c) Precise working is not possible due to inadequate information sharing
d) It is time consuming as work is done manually.

### *C. Propound System*

The proposed system depicts the implementation of a Project Management System which is developed for the utilization of the college students and to overcome the drawbacks of existing Project Management System (PMS).

With the development of PMS the manual work can be reduced as the system is build for monitoring and managing the project work and henceforth the work becomes more accurate and efficient. In the system the guide and the coordinator can upload various tasks in the form of assignments along with its due date. The student can view/download the assignment task with its guidelines provided by the concerned faculty. The students are required to complete their work in given time and update the status on the system. The faculty can keep a track on student's activities and grade the student's task work. The system would include the video call and chat option to facilitate the group discussions, meetings and reviews with group member and faculties which eventually leads to successful completion of project.

## III. Methodology

This section senses to clarify the methodological guidelines that directly underlie this study. It intends to smoothen the procedure of communication between faculties, students and head of department enhancing the efficiency in supervision and govern up the grading by using varied procedures. The students can aim accuracy and complete their project conveniently while the faculties can observe their work in optimized manner.

### *A. Development Criteria*

**Table**
**Requirements**

| | **SOFTWARE REQUIREMENT** | **HARDWARE REQUIREMENT** |
|---|---|---|
| DEVELOPER | • Microsoft Windows 7 OS<br>• Android Studio V.4.0 and above.<br>• Java 8 and above<br>• XML<br>• MySql<br>Android version 6.0 and above | • Processor –i3 and above<br>• Hard Disk – 100 GB and above<br>• Memory – 8 GB RAM and above |
| USER | • Android version 6.0 and above<br>2 GB RAM and above | • Android mobile phone |

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*B. User Modules*

*1. Project Coordinator :*

Project Coordinator is the head and in charge of all the activities during the project.

*2. Guide:*

Guides are the faculties appointed to the particular project groups in order to provide directions to their workings.

*3. Student Teams:*

Certain number of student coordinate together to form a team for successful completion of the chosen project.

*C. Significance*

However, before defining and applying any research method is of fundamental importance that the researcher has an overview of the main characteristics that define his study.1.Project management effectively controls change, allowing organizations to introduce new products, processes and programs. 2. Projects are becoming more complex, making them more difficult to control without a formal management structure.3. Projects with substantially different characteristics, especially in IT, are emerging. 4. Project management helps cross-functional teams to become more effective. 5. Companies are using project management to develop and test their future leaders. The objective of the Application is to manage the projects under Development. Every project is divided into modules and every module is divided into tasks.

*D. Technical Flow*

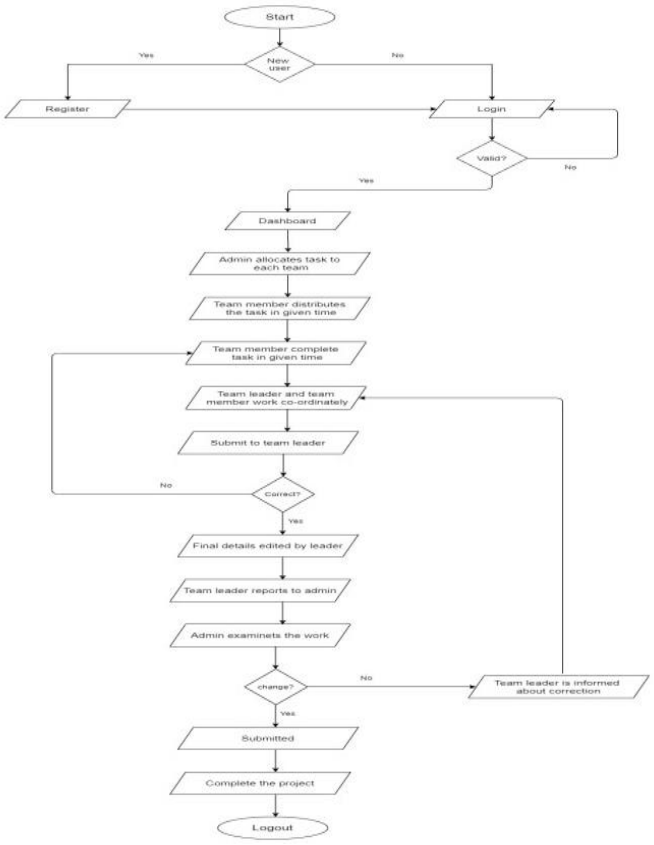


**Figure : System Flow**

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Firstly all the students need to register into the system using registration form to login the system. Then registered students can login into the system using their id and password to get authenticated. When the students login to the system, then they will be directed towards there respective dashboard. Similarly, project guide needs to login into the system using their id and password. Project coordinator is main aspect of the system which will assign different tasks to the students. Depending upon the different parameters, the work is assigned by the coordinator and the team member complete the task in given time. After the work is done with respect to time , it is held forward for examination by project coordinator. Alterations are suggested if need and accordingly team work upon the project by considering all the guidance. With the final examine of the assigned task the work of the project completed. After the work completion the respect login entity can logout the system

## IV. Result Analysis

The propound system which is worked upon to be implemented is desired to provide certain predefined functionalities automatically and that would raise the need to adapt these application in order to get ease of work. The result analysis features the required characteristics in sequence and displays the functions.

### *A. Features*

1. *Work Upload:* Admin upload tasks for student information.
2. *Chat Media:* Interface for communication.
3. *Marks Allocation:* Verifying work task and marking accordingly.
4. *Reporting:* Generating Progress Report on verification.
5. *Document Sharing:* File Sharing System to reduce complexity.
6. *Task Management:* Uniform work distribution among group members.
7. *Project Monitoring:* Tracking the status of the students.

### *B. Service Modules*

1. *Team Formation:* Initially teams are formed with the approximation in the number of members in each team.
2. *Project Allocation Module:* Each of the Group is associated with a particular domain of their deliberation on which they would work.
3. *Communication Module:* An interface would prevail that bridges the instructor and the teams for successful completion of project.
4. *Project Management Module:* The management is enforced by the system by handling all the communication and workings among the members and the concerning faculties.
5. *File Sharing Module:* The FSM depicts the distribution of files in various formats which would be a immense step to reduce the complexity of unmanageable documents.
6. *Submission and Grading Module:* The Work after completion is upload over the system and graded accordingly which would bring ease in grading.

### *C. Application Fragments*

1. Registration
2. Login
3. Chatting
4. Video Calling
5. Assign and Upload tasks
6. Verify tasks
7. Generate Grade Report

## V. Conclusion

The degree of complexity of the projects is a factor that can influence the method of control as well as that of rapport. Here, the method of project management is addressed to project coordinator, guide and particular group team members. These application is designed for the convenience of the project work will act as a major interface between the team members, guide and the coordinator. It will bridge the activities amongst them to complete all the tasks and be a great support in the project completion and simplify the grading work.

## VI. Future Work

The capability of the system can be increased by addition of an interface which can measure the percentage work done and similarly the subtask that is remaining. And also display users work where admin can display suggestions and corrections.

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