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# A Proposal for Final Year Project Monitoring and Assessment System

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## ABSTRACT

Mumbai university has included final year project in their syllabus for final year engineering students in every stream of Bachelor in Engineering degree. Until recently, the undergraduate B.E. projects have been managed via manual process in most of the engineering colleges. Due to this, it is very difficult for the project coordinators to keep track of all the paperwork resulting in tiring task. The manual process is very time consuming hence project guides are unable to identify current level of execution of the projects considering the fact that there is more than one group under a guide. A lot of duplicity of project ideas are experienced due to the unavailability of the previous year project abstracts. Absence of proper notification system and all standard document formats is becoming tedious task for students. In this work, we are developing a web portal platform which would be helping both students and management staff to monitor the Final year projects. Every stage in completing project is recorded by this system and detailed record for each and every project is maintained by the institute digitally for the coming years.

**Keywords:** Web Portal, **GFDS**

## I. INTRODUCTION

The final year project monitoring and assessment system is combination of a web portal, document repository system, notification system.

A web portal[1] is a unified approach of representation of information from diverse sources with the help of linked pages. They are way different than static pages as they have unique login for every user. Web portals are designed in such

a manner that they fulfill every individual's requirements. Thus, web portals help users to enter their own data space and then let them do their work.

Document repository system[2] simplifies the storage, management and provides the ease of access of the documents in this case all project reports. This system makes all the documents available at single place hence saves time and reduces the tedious task for the project coordinators to manage them.

## II. EXISTING SYSTEMS

### 1. Project Performance Management System for Effective Final Year and Dissertation Projects Supervision[3]

Description: This system is proposed for four actors which are students, supervisors, examiner and administrator. Students will be uploading their ideas using forms. When students will narrow down their area of interest then system will automatically suggest the potential supervisors according to the domain. Project activity timelines and expected outcomes are decided so that project can be monitored properly by supervisors and students too. The work done by the students will be assessed by

examiner and supervisor using assessment forms and detailed feedback is provided to students.

Feature: separate login for each user, suggestion from system about supervisors, assessment forms, feedback forms.

Limitation: There is no measure taken to avoid the duplicity of the projects. The notifications about events, reviews and deadlines is not convey via this system which is necessary. Availability of standard documents will make it easy for the supervisors and examiners to assess reports properly.

**2. Design and Development of a University Portal for the Management of Final Year Undergraduate projects[4]**

Description: The aim of this project is to develop intranet portal for managing the project activities such as stopping duplication of project ideas, allocation of supervisor to students, communication between supervisor and students, uploading the reports by students and the same reviewed and send back to students by supervisor, clearance reports for students.

Features: avoidance of duplication of ideas, group guide mapping, communication between all users.

Limitation: The planning and scheduling activities needs to be discussed with guide for a successful on time completion of projects. Those activities along with actual level of execution of projects is not known to the guide. The evaluation of project reports is also missing in this system.

**3. Final Year Supervision Management System as a Tool for Monitoring Computer Science Projects[5]**

Description: This proposed system is a web application where it is divided further into modules so that it will be easy to use for the users i.e. students, supervisors and head of department or administrators. Appointment module is used by students to take appointment with supervisor on weekly basis. Students and lecturer's profile module handles all the data about individuals. Scheduling module focuses on timely completion of all project activities. It also sends notifications to students and guides. Log book module helps students to remember tasks to do which are discussed in meetings. Administrator module manages the submission of documents.

Features: allows student to take appointment with guide, scheduling of project activities, notification system.

Limitation: The project group and guide mapping is a very time consuming and a bit complex task which has to be performed by the administrator or department project head. It should be done by the system on the basis of students and guides area of interest or specialization. Mapping could be also based on include preference by both. Evaluation of project reports is missing in this system.

**4. The Development of a Final Year Project Management System for Information Technology Programmes[6]**

Description: The proposed system is divided into five modules. Project allocation module helps to assign students project topics based on their previous years GPA. In case of two groups has similar GPA then PO (project organizer) have to manually assign the projects. Communication module is a convenient medium through which students are able to discuss about meetings and their queries with supervisor. Project management tool helps students to create task scheduler with ability to assign priorities on their own. File sharing and repository module helps students to manage their files and documents online. Submission and grading module keeps track of all reports which are downloadable by examiners and ready to read.

Features: automatic assignment of project topics to students, document repository to manage documents online.

Limitation: Students should be able to view all the past projects done so that they will be getting an idea about how to do the projects properly. The notification system is missing in this proposed system.

**5. Completely Automated Project Management System[7]**

Description: In this system students have to first register themselves and then upload synopsis about project ideas. The system automatically finds domain by scanning the synopsis. Then coordinator manually assigns the guides to each group. Then over the period of time, students upload necessary documents which are assessed by the supervisors. Once all documents are submitted by the group project gets closed.

Features: domain finding system, document repository system

Limitation: Manual allocation of guide to project group consumes large amount of time hence process gets slow and complex. The progress of the project is recorded by the documents submission and not by actual implementation. Feedback of assessment is necessary for students as they are unaware of areas they lagged in. Students should be notified timely about events, reviews and project activities.

**6. shodhganga.inflibnet.ac.in: Theses repository website[8]**

Description: This is a web based repository which provides platform for searching theses with open access to all designed mainly for research students in Ph.D. The theses are managed in different categories which makes searching those easy. The platform allows us direct search by title name, university based search, subject based search.

Features: Wide variety of theses, sorted well according to categories.

Limitation: This system will help students in their decision of selecting a project topic but will not help in their project management activities.

**7. Vidyalankar Institute of Technology: Final year project management system[9]**

Currently in Vidyalankar Institute of Technology, the final year projects are managed every year manually. First according to recent trends and scope, the domains are decided by the project coordinators of each department. These domains can be same or different for each department. Then third year students are informed about the standard process via power point presentation by the coordinators of each department. Then they were asked to form the team of three members. After some time, every individual group is asked to fill the Group formation and Domain selection (GFDS) form.

Before all this, the guides were asked to give the details of the domain they are expert in and the probable project ideas. Based on this information and the GFDS form, guides are allocated to each group manually.

In 7$^{th}$ semester after guide allocation, the group is asked to report to the guide and discuss about the ideas. Now these ideas if found feasible by the guide then guide will approve those ideas to present in front of expert panel. The guide will ask groups to fill the form about project ideas and to make presentations on those topics which has to be presented to panel. At minimum 3 ideas has to be submitted in the form before expert panel.

According to the decided schedule, the expert panel will review each and every idea of every group. The review will be based on parameters like complexity of the project, feasibility of the project, social

benefits of project, implementation of the project, etc. Based on the review analysis, expert panel will approve one idea among many. The panel will ask group to carry forward this idea. If no idea is approved by the panel then the group will be asked to do research and come up with new ones or do some advance additions to these ideas. These groups will be rescheduled for review about ideas.

Once the project topic is finalized by the expert panel then groups were asked to prepare their schedule of project activities and timeline for the same. Project group has to meet their guide at least once in every week to discuss about what has been done and what is to be completed in the next week. The documentation about activities is maintained by the project group and guide separately in their diaries. These weekly meetings are very helpful for the guides to assess the students individually and to know the progress made.

At the end of each semester there will be project review where the project work done by the group is assessed by the external moderator. At the end of 8th semester group has to present the black book about all the project documents, diagrams and outputs.

## III. OBSERVATIONS

The section 'Existing systems' discussed the problems and probable solutions using digital way. The important tasks or problems to be solved are group formation between students, allocation of guides to groups, communication between guides and group, keeping track of level of execution, notification system to keep students and guides aware of events and reviews coming in next few days, management of documents submitted, statistics of the projects for every department, assessment of reports. These tasks are managed by the proposed system in more efficient manner.

## IV. PROPOSED SYSTEM

The Final Year Project Monitoring and Assessment system will be having separate student, project guide and coordinators login to the system. Students will have to form groups within the class. The list of students who did not formed team and those who send invitation is displayed. Student can send invitation to maximum two students. Students can search previous year projects. If groups are not formed before deadline then system will automatically form the groups. Students can also give preferred list of guides. Project guides will have to update their profile about area of specialization and give their preferred groups and suggested ideas. After this the student guide mapping will be performed by the system and allocation will be done automatically. Then once the project idea is approved system will be helping students and guides to send and receive notifications via email. The planning and scheduling of the project is done with the help of Gantt charts. The track of weekly meetings will be maintained by guides. The documentation of students projects will be maintained by the project coordinators based on which pie charts and progress bars will be generated and updated throughout life cycle of project.

## V. CONCLUSION

The current way of managing the final year projects involves many tasks such as group guide mapping, managing the record of documents submitted, keeping track of progress of each project for every group which requires more time and are complex in nature. The final year project monitoring and assessment system is proposed so as to reduce these cumbersome tasks of the management staff. This system will be more efficient, less time-consuming way of managing the final year projects.

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