



Portal To Learn Engineering In Kannada

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Abstract: As engineering is constantly changing and has a huge impact on the various aspects of our lives, it has become very much important for each and every individuals to get access to quality engineering education in the in native or regional language. Where many huge universities and top class institutions offer engineering courses in English, not everyone who completed their schooling in regional language may be fluent in reading and writing in English or feel comfortable learning in it. This is where a portal to learn engineering in Kannada language can be most valuable. Such a portal would provide engineering education in Kannada languages, making it more accessible and more easier to understand for those who are not proficient in English. This portal could offer a variety of engineering courses, including mechanical engineering, electrical engineering, civil engineering, and more, and also provide necessary resources for the courses to the students in Kannada language. In addition to language accessibility, the portal could also address the issue of engineering education being limited to certain geographic regions. By providing education in Kannada languages, the portal could reach the students who leave in rural or remote areas who may not have access to traditional engineering programs. Overall, a portal to learn engineering in Kannada language has the potential to democratize access to engineering education, empower individual to have a great engineering careers, and contribute to the overall growth and development in engineering field.

Keywords: Quality Engineering Education, Regional Language, Kannada Language, Traditional Engineering Programs, engineering careers.

I. INTRODUCTION

The Ministry of Education in November 2021 constituted a high-powered committee, the Bharatiya Bhasha Samiti, was started to promote the education in regional language. The committee is preparing an action plan whose main motive is to grow education in regional language prescribed under National Education Policy (NEP) 2020, which states that mother tongue should be the the medium of education in schools and higher education institutions. All India Council for Technical Education (AICTE) decided to start BE education programs in native languages in tune with the New Education Policy (NEP). The NEP provide the road map that demonstrating the means to protect our languages while providing quality education in our language. NEP's emphasis on the mother tongue as the medium of education will boost the confidence among the students from poor, rural and tribal backgrounds. One of the biggest issues in higher education is that students who complete their foundational coursework or schooling in regional language face a lot of difficulty in completing their foundational degree in English. There is requirement to provide more and more learning material and resources in India's regional languages in order to provide students more flexibility and to make the learning more effective and easy. As many students come from Kannada medium background, they are not fluent with reading and writing in English. So it would be very much difficult for them to read and understand the concepts in English language. So we are building a portal where all the user can access all the resources in Kannada and can understand the concepts easily. In conclusion, regional languages could one day become a medium of instruction in Technical Education but only in inclusion with English. Also, quality of the course provided should be at least as good and ideally better than courses instructed in English.

II. OBJECTIVES

One of the biggest issues in higher education is that students who complete their foundational coursework in a regional language have a very difficult time earning their foundational degree in English. It is usually seen that these students lose motivation as a result of the language barrier because they are unable to handle the main language of higher education and cannot understand the lectures clearly. This project will discuss potential solutions to some of the biggest obstacles and hurdles that students encounter when it comes to learning, comprehending ideas involving new languages, and student demoralization caused by a lack of proficiency in the primary language of instruction.



III. ANALYSIS & REQUIRED SPECIFICATION

A. *Purpose:* This is the web-based project and we can provide study materials through online. This web application uses a centralized relational database, which allows us to access the data from the database from a remote location through the web application. The main purpose is to access the study materials and understand the concepts easily.

B. *Scope:* The system can be used by the students of any engineering institute and also can be accessed by the teachers. The intention of the system is to provide the study materials in the native languages so that they can easily understand the concepts.

IV. FUNCTIONAL REQUIREMENTS

Two modules are used in this project namely admin and student.

- Admin: He has the authority to insert, delete or modify the study materials.
- Student: He has right to view the resources which has been uploaded and can provide feedback.

V. NON-FUNCTIONAL REQUIREMENTS

A. *Hardware Requirements:*

Processor : 11th Gen Intel(R) Core(TM) i5-1135G7 @ 2.40GHz 1.38 GHz

Monitor : 1024 * 768 Resolution

Disk Space : 10 GB of available Hard Disk

RAM :4 GB Input Output Console for interaction.

B. *Software Requirements:*

Operating System: Windows 11

Front End: HTML,CSS,JavaScript

Back End: PHP

Framework: Bootstrap,jQuery

Database: MySQL

Web Server: Apache

Web Browser: Google Chrome

VI. METHODOLOGY

The Portal to learn engineering in Kannada is a web-based platform developed using PHP and MySQL, designed to easily add the study materials and access those materials and understand the concepts clearly. This application comprises two primary modules: the Admin Module and the Student Module. The Admin Module provides a variety of features such as adding, deleting, and modifying study materials. The Student Module, on the other hand, offers features like viewing the resources and understanding the concepts.

VII. ARCHITECTURAL DESIGN

An architectural explanation is a formal description and illustration of a system, organized in a manner that supports reason in relation to the structure of the system which comprises system components, the externally detectable properties of individual components, the interaction among them, and provides a plan from which products can be procured, and systems developed, that will work mutually to implement the on the whole as a system.

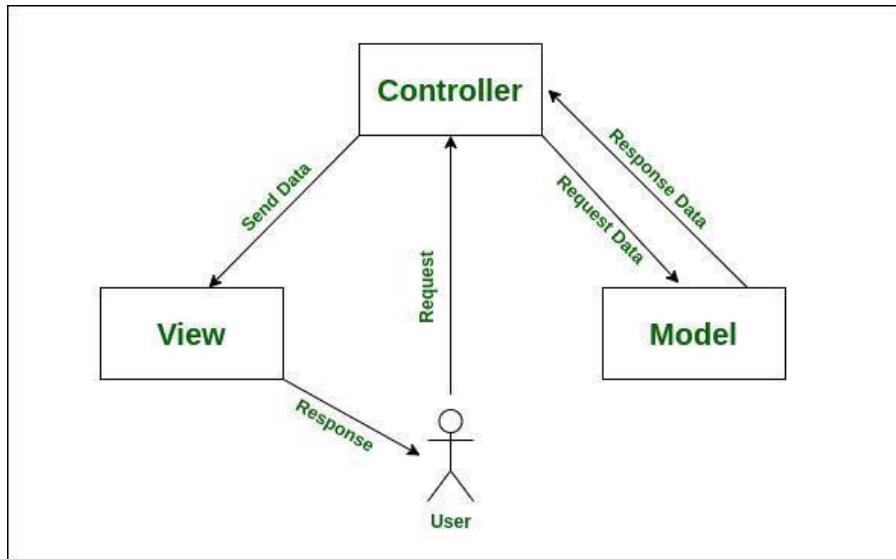


Fig. 1 ARCHITECTURAL DESIGN FOR THE SYSTEM

Model: The Model component corresponds to all the data-related logic that the user works with. This can represent either the data that is being transferred between the View and Controller components or any other business logic-related data. This could be MSSQL, MySQL, or PostgreSQL, etc.

View: The View component is used for all the logic of the application. This can be written in HTML, CSS, JS. It also supports react, angular etc.

Controller: Controllers act as an interface between Model and View components to process all the business logic and incoming requests, manipulate data using the Model component and interact with the Views to render the final output. The controller can be written in Python, Node JS etc.

VIII. RESULT AND DESCRIPTION

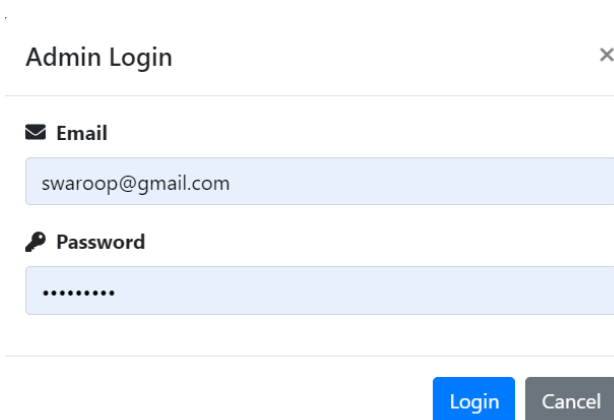


Fig. 2 Admin Login Page

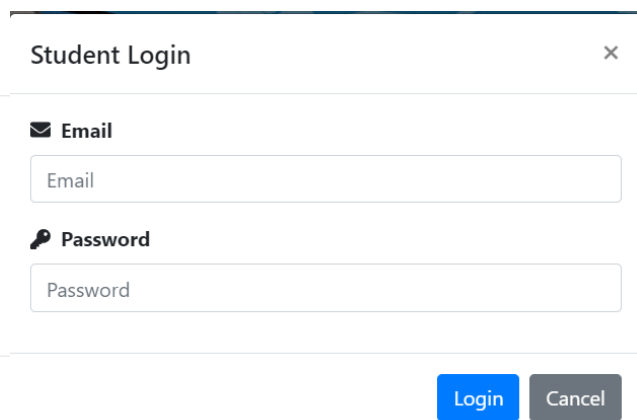


Fig. 3 Student Login Page

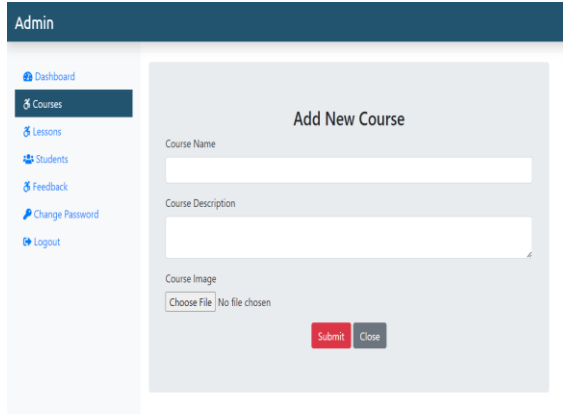


Fig. 4 Add New Course

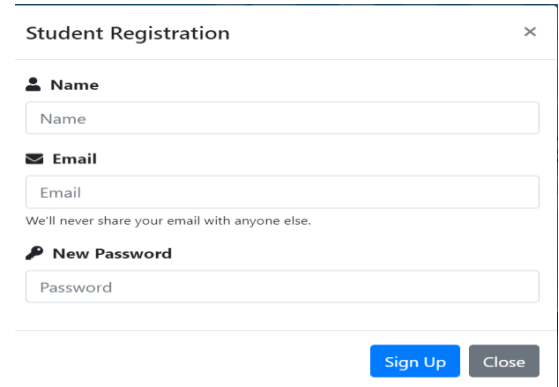


Fig. 5 Student Registration Page

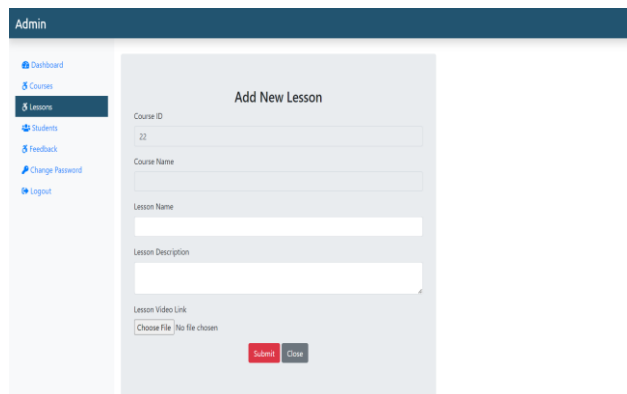


Fig. 6 Add New Lesson

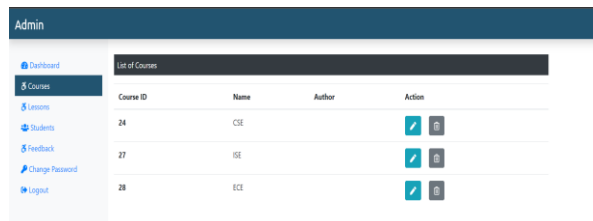


Fig. 7 List All Course



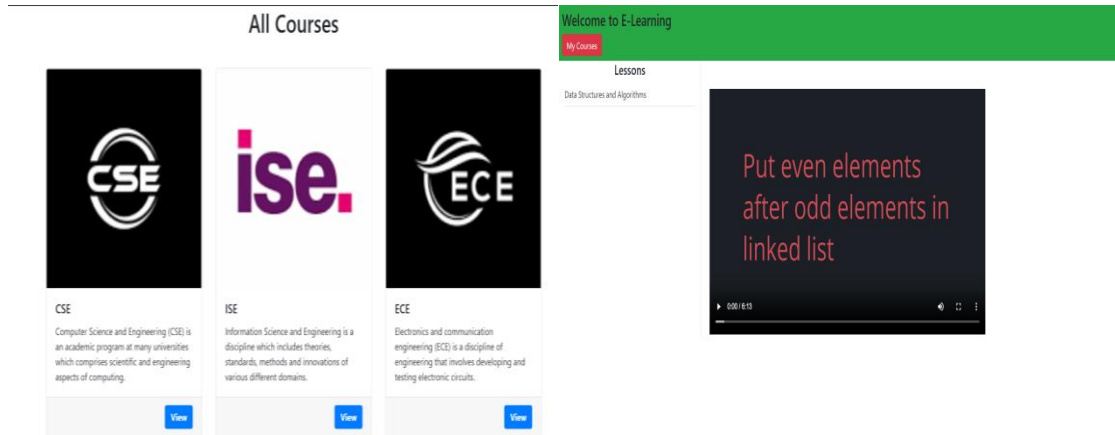


Fig. 8 View All Course

Fig. 9 View Lesson

IX. CONCLUSION & FUTURE ENHANCEMENT

It is an easy-to-use web tool that is used to upload and access study materials. This project is web-based, which eliminates paperwork and allows for remote monitoring. Students will receive the study resources easily. The database's data can be accessed at any time. The main objectives of this project are to provide the study materials in a native language. This project avoids unauthorized access from others since it is secured. Both the student and the administrator can access this website by logging in using their unique credentials. Overall, the work process has been streamlined and productivity has increased.

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