Design & Development Of A Satellite Portal To Support Adaptive E-Learning

[1]Kiran Pudke, [2]Mitali Giradkar, [3]Prajwal Sherkar, [4]Punesh Bokde, [5]Dr. Mahendra Gaikwad

[1]Student, [2]Student, [3]Student, [4]Student, [5]HOD
Information Technology,
G.H Raisoni College of Engineering, Nagpur, India

Abstract: Web development is referred to as website designing as well as publishing with respect to fulfilling the requirements of project objectives. It includes project modules of functionalities in the website with proper passion. Web development projects having front-end, back-end, APIs, database, microservices, UI- UX designs, etc. Satellite portal to support adaptive e-learning for those who are interested to learn about satellite technology. Currently, satellite technology and space technology are trending technologies in the market. Learning Satellite technology makes students make themselves skillful for jobs as well as for innovative start-ups.

Keywords: **Web Development, GHRCE- SAT.**

I. INTRODUCTION

Geo-informatics deals with remote seeing and geographic information for natural resource operation, structure development, disaster operation, installations operation, mileage services, and more. Capacity structure of technical departments, exploration institutes, and academic institutions is a major task in the field of Geoinformatics. It's also delicate for all of them to quit their jobs and go on to advanced education because of their work history. Due to the current situation and the vacuity of information and communication technology (ICT), numerous people prefer to attend online and live sessions of lectures and exercises in e- learning mode. It also helps individualities study anytime, anywhere.

Since people are floundering with chancing out satellite information as well as space- related information, G H Raisoni College of Engineering Came up with a "Design and Development of satellite portal to support adaptive e-learning". The thing of this design is to produce a web portal that helps scholars to learn on an online platform and perform instrument courses. This Portal is helpful for those who are interested in learning about Space technology. This portal can also give shops and forums to institutions and universities for the betterment of scholars. The portal would probably be erected using a content operation system (CMS) that allows preceptors to fluently produce and manage course accoutrements , similar as textbook, images, and vids. It also includes a literacy operation system (LMS) that allows preceptors to produce and manage courses, track pupil progress, and give substantiated feedback. The database is used to store and manage pupil data, similar as grades, progress, and particular information. It includes a system to authenticate druggies, similar as a login system, and authorize access to different coffers and features grounded on stoner part and warrants. It would include analytics and reporting capabilities, similar as tracking pupil exertion, course completion rates, and assessment results, and presenting the data in an easy- to- understand format for preceptors and directors. It would have automated emails and announcements that can be transferred to scholars and preceptors, similar as monuments for assignments, adverts and updates. It may also be integrated with other systems, similar as a pupil information system or a payment gateway, to give fresh functionality and streamline executive tasks.

II. OBJECTIVE

* Brief as well as the latest information about space technology.
* Training courses and internship in satellite and space technology with grading and certifications.
* Workshop related to satellite and space technology.

III. LITERATURE REVIEW

The G H Raisoni College of Engineering has developed a web portal for the GHRCE Ground Station Satellite to help students learn about space technology and perform certification courses online. The portal provides live location information about the satellite and includes workshops and seminars for universities and institutions to improve student learning.
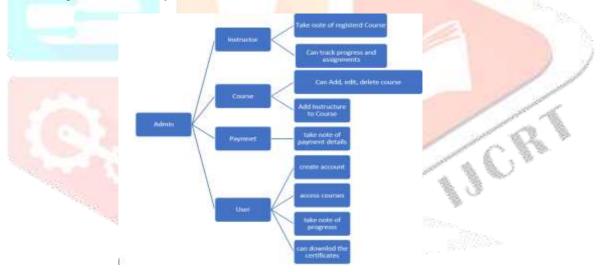
The portal is likely built using a content management system (CMS) that allows instructors to create and manage course materials, a learning management system (LMS) to track student progress, and a database to store and manage student data. The system also includes authentication and authorization features to provide access to different resources based on user roles and permissions.

Moreover, the portal includes analytics and reporting capabilities to track student activity and course completion rates and provide personalized feedback to instructors and administrators. Automated emails and notifications are also sent to students and instructors for assignments, announcements, and updates. The system can be integrated with other systems, such as a student information system or payment gateway, to streamline administrative tasks and provide additional functionality.

In summary, the GHRCE-SAT web portal is a valuable resource for individuals interested in space technology and provides an excellent platform for students to learn and perform certification courses online. The use of CMS, LMS, database and analytics features ensures a comprehensive and personalized learning experience for students while streamlining administrative tasks for instructors and administrators.

IV. METHODOLOGY

Via looking through GHRCE- SAT you can visit our site named GHRCE satellite ground station where you're welcome with a pre-loader and a landing page where you can figure out the statement of purpose, display, video, satellite group, and blog member. The navbar contains satellite- groups, inspiration, occasions, backing, and more buttons. By tapping on the satellite group button you can visit the understudy satellite group profile. The inspiration shows the inspiration for transferring off the nano- satellite. The occasions will show the forthcoming and chronicle occasions so that intrigued ones can take part in occasions. The help runner contains R and D associations and businesses that help the starting of nano- satellites. further fastens contain Acknowledgment, Plan Approach, MOU, transferring off, Preparing, GHRCE Satellite Ground station, and Accomplishment tabs. Acknowledgment, Plan Strategy, MOU, and transferring off tabs contain data connected with the GHRCE nano- satellite. The medication tab contains educational classes that are paid as well as free. The other Tab is GHRCE Satellite Ground station where you can find data connected with the ground station. The accomplishment Tab contains accomplishments done by the GHRCE nano- satellite.

V. TECHNOLOGY USED

Frontend:
The goal when designing a website is to ensure that when a user opens the website, the information is presented in an easy-to-read and well-formatted manner.

HTML CSS
Bootstrap Framework Java Script

Back end
Most of the data and manipulation syntax is stored and accessed in the back end of computer systems.

PHP MYSQL

VI. ABOUT THE PORTAL

- Single platform for multiple uses
o Informative portal relates to space technology.
o Provide Training and Workshop on the same platform.

Accessibility
1. User (Who enroll for certification Courses)
- Students
- Professionals who are enthusiastic to learn about space technology.
2. Admin (Control/Management of Portal)

Benefits
- Portal user-friendlily as having good UI/UX as well as better navigation
- Fully dynamic
- Adaptive for devices with their responsiveness.

VII. CONCLUSION

The thing of this design is to produce a web portal that will help scholars to learn on an online platform and perform instrumentcourses. This design gives information regarding GHRCE- SAT which was launched on 28 February 2021 by ISRO using PSLV- C51 Amazonia- 1. This gate is helpful for those who are interested in learning about space technology. This gate is also able of furnishing shops and forums to institutions and universities. A completely dynamic website with a tutoring module would probablyhave the following features

● Dynamic Pages: The website would be suitable to modernize its content and layout on the cover, without taking the stoner to manually refresh the runner.
● User accounts: druggies would be suitable to produce accounts and log in to access substantiated content and track their progress.

● Teaching module: The website would include interactive assignments and exercises, as well as assessments and quizzes to testthe stoner's understanding of the material.

● Content Management system: The website would have a back- end system that allows directors to fluently add, edit, and cancel content.

● Responsive design: The website would be optimized for viewing on a variety of bias, similar as computers, tablets, and smartphones.

● Accessibility: The website would be designed to be accessible to druggies with disabilities, similar as screen compendiumsfor the visually bloodied.

● Security: The website would have robust security measures in place to cover stoner data and help unauthorized access.

VIII. REFERENCE

[1] communications and security (ICEYE)
[2] Indian institute of remote sensing (IIRS)
[3] Raisoni group (GHRCE)