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Design & Development of Satellite Portal to Support Adaptive E-Learning

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***Abstract:** Web development is referred to as website designingas 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, micro services, 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 to make themselves skilful for jobs as well as for innovative start-ups.*

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

I. INTRODUCTION

Geo-informatics deals with remote sensing and geographic information for natural resource management, infrastructure development, disastermanagement, facilities management, utility services, and more. Capacity building of specialized departments, research institutes and academicinstitutions is a major task in the field of geo- informatics. It is also difficult for all of them to quit their jobs and go on to higher education because of their work history. Due to the current situation and the availability of information and communicationtechnology (ICT), many people prefer to attend online and live sessions of lectures and exercises in e-learning mode. It also helps individuals study anytime, anywhere.

Since people are struggling with finding out satellite information as well as space-related information, G H Raisoni College Of Engineering Came up with a "Web portal of GHRCE GroundStation Satellite" .The goal of this project is to create a web portal that helps students to learn on an online platform and perform certification courses. GHRCE- SAT Web Portal also shows us the live location of the satellite. GHRCE-SAT gives information regarding the GHRCE nano-satellite which was launched on 28 February 2021 by ISRO using PSLV-C51 Amazonia-

This web Portal is helpful for those who are interested in learning about Space technology. This portal can also provide workshops and seminars to institutions and universities for betterment of students.

II. OBJECTIVE

1) Brief as well as latest information aboutspace technology.
2) Training and internship in satellite and spacetechnology.
3) Workshop related to satellite and spacetechnology.

III. LITERATURE REVIEW

After reviewing the number of websites, we find outthat there is no single platform or portal where student can do learning and certification courses on single platform.

1) ICEYE (www.iceye.com/satellite-data): They provides information about satellite technology.

Rapidly evolving satellite data presentsopportunities for people and businesses around the world. This page is for people interested in using satellite data for innovative applications that enable faster and better decision making. It discusses the technologies, applications and benefits of satellite imagery and provides a detailed introduction to Synthetic Aperture Radar(SAR) technology and how it can be used to generate highly actionable information for governments, organizations and businesses increase.

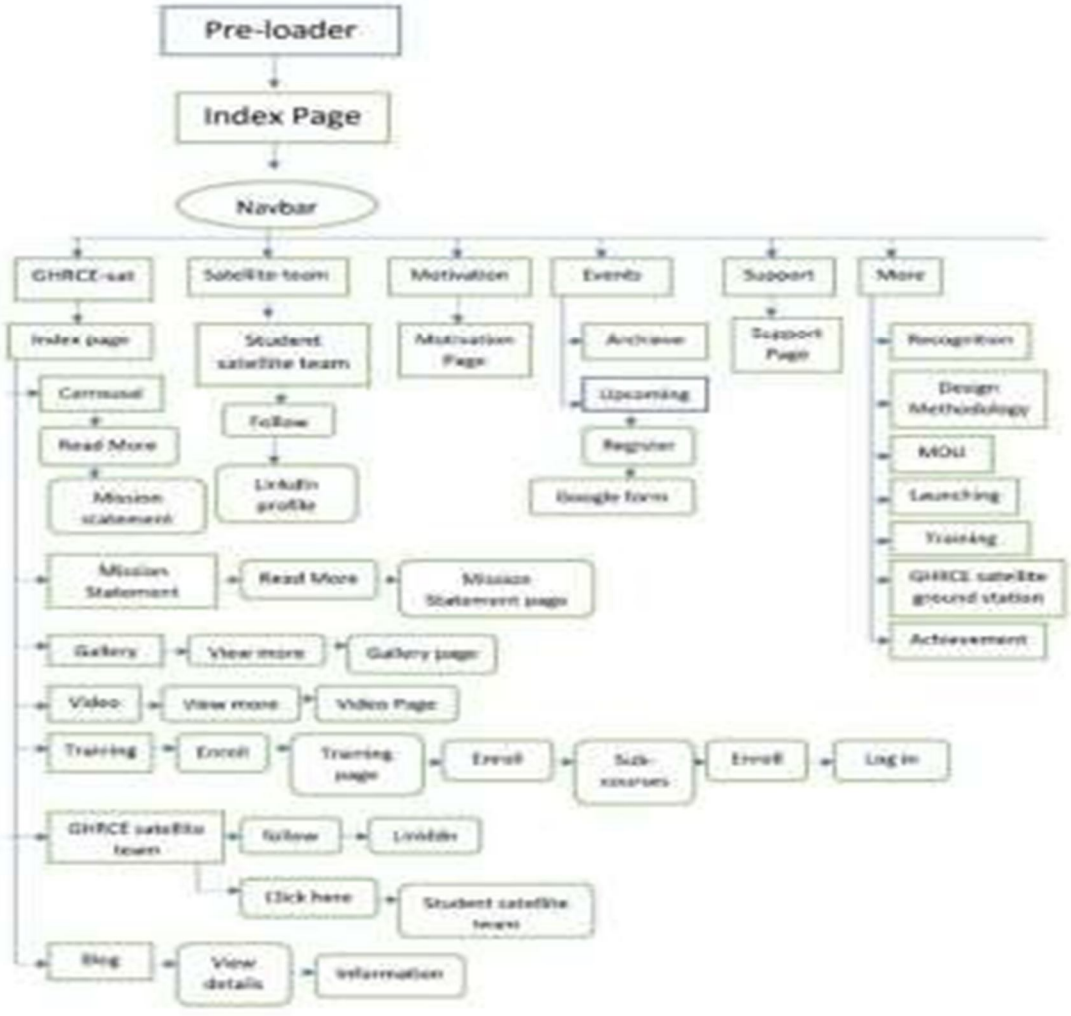
The growth of the New Space industry dictatesthat businesses and governments around the world have an advanced understanding of what possibilities are opened for them. The shortage of popular scientific sources explaining related complex concepts in an easy and commonly understood way It is not an obstacle for those who want to understand satellite data in more detail.

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2) IIRS (www.iirs.gov.in/EDUSAT-News) : They provides certification courses of satellitetechnology.
Indian Institute of Remote Sensing, Dehradun was the leading institute responsible for capacity building in remotesensing and GIS applications. It has grown in many ways and has established itself as a renowned research institute both nationally and internationally. Recognizing future ISRO initiatives in the fields of atmospheric scienceand oceanography, we have reorganized the IIRS as a separate organization from ISRO w. e. f. April 30, 2011. IIRS will continue its training, education, and research programs with increased emphasis on microwave remote sensing, hyper spectral remote sensing, and climate research. The Institute is governed by a Board of Directors, which sets the general direction of the Institute's development. Dr. PS A brilliant scientist, Roy became the first director of IIRS w. e

IV. METHODOLOGY

Via looking through GHRCE-SAT you can visit our site named GHRCE satellite ground station where you are welcome with a preloader and a landing page where you can figure out statementof purpose, display, video, satellite group, and blog segment. The navbar contains satellite- group, inspiration, occasions, backing, and morebutton. By tapping in the satellite group button you can visit the understudy satellite group profile. The inspiration page shows the inspiration for sending off the nano-satellite. The occasions Page will show the forthcoming and chronicle occasions so that intrigued ones can take part in occasions. The help page contains R and D associations and businesses that help the starting of nano-satellites. More fastens contain Acknowledgment, Plan Approach, MOU, Sending off, Preparing, GHRCE Satellite Ground station, and Accomplishment tabs. Acknowledgment, Plan Strategy, MOU, and Sending off tabs contain data connected with the GHRCE nano-satellite. The preparation tab contains instructional classes that are paid as well as free. The following Tab is GHRCE Satellite Ground station where you can find data connected with the ground station. The accomplishment Tabcontains accomplishments done by the GHRCEnano-satellite.



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V. TECHNOLOGY USED

A. 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. This is further complicated by the fact that today's users are using a variety of devices with different screen sizes and resolutions, and the designer must consider these aspects while designing her website.

HTMLCSS

Bootstrap FrameworkJava Script

Back end

A backend is the portion of a computer application's or program's code that enables operations and is not user-accessible. Most of the data and manipulation syntax is stored and accessed in the back end of computer systems.

Php MySql

VI. ABOUT THE PORTAL

A. Speciality

1) Single platform for multiple uses

- Informative portal relates tospace technology.
- Provide Training and Workshopon same platform.

B. Accessibility

1) User (Who enroll for certificationCourses)

- Students
- Professional who are enthusiasticto learn about space technology.

2) Admin (Control/Management of Portal)

C. Benefits

1) Portal is user friendly as it having goodUI/UX as well as better navigation

2) Fully dynamic

3) Adaptive for any devices with itsresponsiveness.

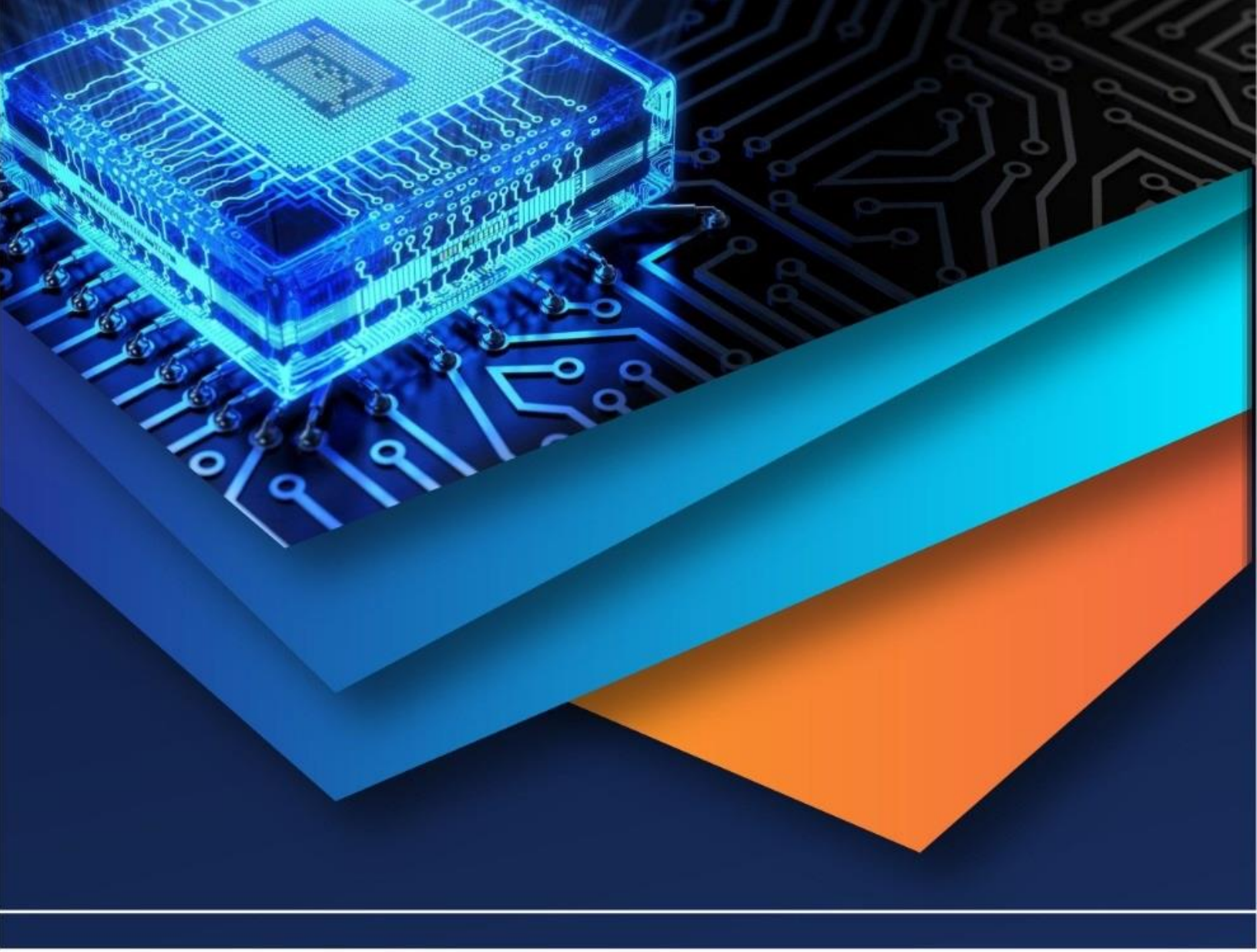
VII. CONCLUSION

The goal of this project is to create a web portal which will help students to learn on an online platform and perform certification courses. This project gives information regarding GHRCE-SAT which was launched on 28 February 2021 by ISRO using PSLV-C51 Amazonia-1. This portal is helpful for those who are interested in learning about space technology. This portal is also capable of providing workshops and seminars to institutions anduniversities

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[2] Indian institute of remote sensing(IIRS)
[3] Raisoni group (GHRCE)

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