EDUCLOUD

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ABSTRACT

Educloud is an innovative cloud-based totally academic platform that pursuits to revolutionize the studying experience by using providing bendy, scalable, and accessible solutions for educators and newcomers alike. This gadget leverages the power of cloud computing to host a wide range of instructional gear, resources, and offerings, making them without difficulty available from any region with net connectivity. The platform supports diverse coaching methodologies, such as synchronous and asynchronous studying, and integrates multimedia content material, interactive simulations, and collaborative capabilities. Educloud not only enhances the traditional classroom environment but also facilitates distance education, lifelong learning, and personalized learning paths.

Keywords: Cloud-based education, E-learning, Scalable learning solutions, Education technology, Personal education

1.INTRODUCTION

Cloud presents a transforming paradigm for data processing and convergence of data processing and education, Educloud learning and teaching. The existing literature highlights Educloud's ability to increase access, scalability and cost-effectiveness in educational institutions. Studies emphasize the benefits of the cloud-based learning management system (LMS) to facilitate individual learning experiences, promote collaboration and improve students. Research also examines an important role as an education to enable food, food for different learning styles and enables geographical barriers at all times, anywhere and anywhere[1-24]

Keywords:

- Cloud-based Education: Cloud-based education refers to the use of cloud computing technology to deliver educational resources, services, and experiences over the internet.

- E-learning: E-learning, also known as electronic learning, is the use of digital technologies to provide students with educational materials and programs.

- Scalable learning solutions: Scalable learning solutions refer to educational technologies and platforms that can support the increasing number of students efficiently and efficiently, maintain or improve the quality of the learning experience.

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2.LITERATURESURVEY

-A literature study on Educloud involves examining existing research and publications related to cloud -based educational management systems, especially Educloud.

-Educloud is a cloud -based educational management system designed to provide a personal learning experience for students, teachers and institutions**.**

-Educloud provides an individual learning experience that gives better learning outcomes**.**

TheoreticalFramework:

- The theoretical framework at Educloud is based on the following principles and models:

1. Technology acceptance model (TAM): This model explains how users make approaches and intentions of using a technology, such as Educloud.

2. Integrated theory of acceptance and use of technology: This theory explains factors affecting a person's intentions of using a technology, such as Educloud

3.Self -determination theory (SDT): This theory suggests how autonomy, capacity and relation affect a person's motivation and engagement, such as in an educated environment.

PreviousStudies:

- A cloud-based teaching system for higher education.
- Decision of Education: A study of factors affecting the intention of using teachers.

Gap inLiterature:

- Limited study on the effectiveness of Educloud in different educational environments.
- Insufficient research on the access and purpose of Education.

ResearchQuestions:

- How to affect Educloud students learning results in different subjects?
- What is the effect of education on student engagement and inspiration?
- How does Educloud teacher affect professional development and instructional practice?

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3.EXISTINGSYSTEM

1.Teaching Management System (TMS): Course management: Educloud allows coaches to create and manage courses, including uploading course content, tasks and grades.

2.Learningpath: Educloud provides personal learning routes for students, and recommends courses and resources based on their interests and learning objectives.

3.Discussion forum: Educloud enables students and coaches to participate in online discussions, share resources and collaborate on group projects.

4.Live session: Educloud allows coaches to organize live sessions including video conferences, screen sharing and real -time chat.

5.Virtual whiteboard: Educloud provides a virtual board to coaches to portray concepts, share notes and engage students in interactive texts.

6.Student Engagement Equipment: Educloud provides different students commitment equipment, such as choices, quiz and sports to increase the student's participation and inspiration.

7.Online quiz: Educloud enables coaches to create and manage online quiz, including questions, true/wrong questions and essayquestions.

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8.Task management: Educloud lets trainers upload files, colleague reviews and rubric, make, assign and create character tasks.

9.Character book: Educloud provides a grade book for coaches to track progress, calculate character and provide feedback.

10.Student performance analysis: Educloud provides analyzes and insights into the student's performance, including learning outcomes, engagement measurements and progressive tracking.

4.PROBLEM STATEMENT

- Poor user experience

- Technical disorders

- Limited personalization

-Insufficient reaction system

Goal:

-Increase the student's learning outcomes by providing an individual, interactive and attractive learning experience.

-Increase access to quality training for all students, whether it is their geographical location, socio -economic background or ability.

-Support teachers in your professional development and provide them with the necessary tools and resources to create attractive and effective learning experiences.

Key Challenges:

-Scalability and performance

-Security and privacy of data

-Availability and purpose

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Desired Outcomes:

-Better academic performance

-Student's involvement increased

-Personal education

-Professional development

5.PROPOSED SYSTEM

1.Cloud Infrastructure: Educloud will be created on cloud infrastructure, using a combination of public and private clouds to ensure scalability, reliability and safety.

2.Microservices Architecture: The system will be designed with a microservice architecture, providing easy flexibility, modularity and maintenance.

3.Material Depot: A material depot will be developed to store, manage and distribute educational materials including video, images, documents and simulation.

4.Assessment and assessment equipment: An assessment and assessment tool will be integrated into Educloud, so that coaches can make, administration and character evaluation and students to track progress.

5.Communication equipment: A communication and collaboration equipment will be developed to facilitate interaction between students, coaches and colleagues including discussion forums, live chat and video conferencing.

6.Analysisand reporting: Advanced analyzes and reporting skills will be developed to provide insight into the student's learning behavior, progress and results.

7.Monitoring and maintenance: The system will be continuously monitored, and regular maintenance will be done to ensure optimal performance, safety and uptime.

8.Student Information System (SIS): A SIS will be integrated into Educloud to manage student data including demographics, registration and academic items.

9.Assessment Management System (AMS): An AMS will be integrated into Educloud to manage rating including quiz, exam and projects.

10.Video conferences and virtual meetings: Video conferences and virtual meeting tools will be developed, so that coaches can deliver virtual office hours, meetings and lectures.

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6.ADVANTAGES

1. Important education: Educloud provides personal learning experiences to individual students' needs, abilities and learning styles.

2. Concentrated access: Education increases access to quality training for all students, whether geographical location, socio -economic background or ability.

3. Bitter engagement: Interactive and attractive learning experiences of Educloud increase students' involvement and inspiration.

4. Feedback in real time: Educloud provides immediate response and assessment results, so that students can track progress and complete the learning strategies.

5. Advanced teacher efficiency: Educloud provides equipment and resources to teachers who are important for creating attractive and effective learning experiences.

7.CONCLUSION

Educloud is a cloud -based educational management system that provides an individual, collaborative and interactive learning experience for students, teachers and institutions. With its scalability, accessibility, adaptation, collaboration and analytical functions, Educloud is an ideal solution for institutions that want to improve learning outcomes, increase efficiency and reduce costs.

Educloud helps to bring revolution in the education sector by providing personal, interactive and attractive learning experiences. By focusing on improving new technologies, prioritizing and improving learning outcomes,Educloud can become an important e-learning platform that changes our way of learning.

REFERENCES

1. Ramdas Vankdothu,Dr.Mohd Abdul Hameed, Husnah Fatima" A Brain Tumor Identification and Classification Using Deep Learning based on CNN-LSTM Method" Computers and Electrical Engineering , 101 (2022) 107960
2. Ramdas Vankdothu,.Mohd Abdul Hameed "Adaptive features selection and EDNN based brain image recognition on the internet of medical things", Computers and Electrical Engineering , 103 (2022) 108338.
3. Ramdas Vankdothu,.Mohd Abdul Hameed,Ayesha Ameen,Raheem,Unnisa " Brain image identification and classification on Internet of Medical Things in healthcare system using support value based deep neural network" Computers and Electrical Engineering,102(2022) 108196.

Doi:10.48047/ijiee.2025.15.5.3

4. Ramdas Vankdothu,.Mohd Abdul Hameed" Brain tumor segmentation of MR images using SVM and fuzzy classifier in machine learning" Measurement: Sensors Journal,Volume 24, 2022, 100440 .
5. Ramdas Vankdothu,.Mohd Abdul Hameed" Brain tumor MRI images identification and classification based on the recurrent convolutional neural network" Measurement: Sensors Journal,Volume 24, 2022, 100412 .
6. Bhukya Madhu, M.Venu Gopala Chari, Ramdas Vankdothu,.Arun Kumar Silivery,Veerender Aerranagula " Intrusion detection models for IOT networks via deep learning approaches " Measurement: Sensors Journal,Volume 25, 2022, 100641
7. Mohd Thousif Ahemad ,Mohd Abdul Hameed, Ramdas Vankdothu" COVID-19 detection and classification for machine learning methods using human genomic data" Measurement: Sensors Journal,Volume 24, 2022, 100537
8. S. Rakesh [a], NagaratnaP. Hegde [b], M. VenuGopalachari [c], D. Jayaram [c], Bhukya Madhu [d], Mo hdAbdul Hameed [a], Ramdas Vankdothu [e], L.K. Suresh Kumar "Moving object detection using modified GMM based background subtraction" Measurement: Sensors ,Journal,Volume 30, 2023, 100898
9. Ramdas Vankdothu,Dr.Mohd Abdul Hameed, Husnah Fatima "Efficient Detection of Brain Tumor Using Unsupervised Modified Deep Belief Network in Big Data" Journal of Adv Research in Dynamical & Control Systems, Vol. 12, 2020.
10. Ramdas Vankdothu,Dr.Mohd Abdul Hameed, Husnah Fatima "Internet of Medical Things of Brain Image Recognition Algorithm and High Performance Computing by Convolutional Neural Network" International Journal of Advanced Science and Technology, Vol. 29, No. 6, (2020), pp. 2875 – 2881
11. Ramdas Vankdothu,Dr.Mohd Abdul Hameed, Husnah Fatima "Convolutional Neural Network-Based Brain Image Recognition Algorithm And High-Performance Computing", Journal Of Critical Reviews,Vol 7, Issue 08, 2020(Scopus Indexed)
12. Ramdas Vankdothu, Dr.Mohd Abdul Hameed "A Security Applicable with Deep Learning Algorithm for Big Data Analysis",Test Engineering & Management Journal,January-February 2020
13. Ramdas Vankdothu, G. Shyama Chandra Prasad " A Study on Privacy Applicable Deep Learning Schemes for Big Data" Complexity International Journal, Volume 23, Issue 2, July-August 2019
14. Ramdas Vankdothu, Dr.Mohd Abdul Hameed, Husnah Fatima " Brain Image Recognition using Internet of Medical Things based Support Value based Adaptive Deep Neural Network" The International journal of analytical and experimental modal analysis, Volume

Doi:10.48047/ijiee.2025.15.5.3

XII, Issue IV, April/2020

15. Ramdas Vankdothu,Dr.Mohd Abdul Hameed, Husnah Fatima" Adaptive Features Selection and EDNN based Brain Image Recognition In Internet Of Medical Things " Journal of Engineering Sciences, Vol 11,Issue 4 , April/ 2020(UGC Care Journal)
16. Ramdas Vankdothu, Dr.Mohd Abdul Hameed " Implementation of a Privacy based Deep Learning Algorithm for Big Data Analytics", Complexity International Journal , Volume 24, Issue 01, Jan 2020
17. Ramdas Vankdothu, G. Shyama Chandra Prasad" A Survey On Big Data Analytics: Challenges, Open Research Issues and Tools" International Journal For Innovative Engineering and Management Research,Vol 08 Issue08, Aug 2019.
18. Vankdothu, R., Hameed, M.A. "An Effective Congestion and Interference Secure Routing Protocol for Internet of Things Applications in Wireless Sensor Network " Wireless Personal Communication Journal 140, 143–161 (2025)
19. Vankdothu, R., Bhukya, H. & Bhukya, R.R. "Hybrid TDR-MI Based Wireless Sensor Network for Underground Water Pipeline Leakage Detection and Localization Using Pressure Residuals and Classifiers Wireless Personal Communications 139, 803–823 (2024).
20. Vankdothu, R., Cheng, X. "Energy Efficient TDMA and Secure Based MAC Protocol for WSN Using AQL Coding and ASGWI Clustering". Wireless Personal Communications 136, 2125–2143 (2024)
21. Vankdothu, R., Hameed, M.A., Fatima, H. *et al.* Multicast Scaling in Heterogeneous Wireless Sensor Networks for Security and Time Efficiency. Wireless Personal Communications (2025).
22. Vankdothu, R., Hameed, M.A., Fatima, H. *et al.* Multicast Scaling in Heterogeneous Wireless Sensor Networks for Security and Time Efficiency. Wireless Personal Communications (2025)
23. Ramdas Vankdothu, Mohd Abdul Hameed" Brain MRI Images for Tumor Detection using Storage Optimization Technique",Mobile Radio Communications and 5G Networks,Lecture Notes in Networks and Systems,425-437, Springer .
24. Bandi Krishna , Ramdas Vankdothu , Varun Revuri and B. Prashanth" A brain tumor identification using convolution neural network in the deep learning" MATEC Web of Conferences 392, 01131 (2024) ,https://doi.org/10.1051/matecconf/202439201131 ICMED 2024

Doi:10.48047/ijiee.2025.15.5.3