EDUVERSE: ACADEMIC RESOURCE MANAGEMENT SYSTEM

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Abstract: Conventional educational institutions often rely on face-to-face encounters for communication between staff and students, which restricts chances for participation outside scheduled class hours. In addition, obtaining additional instructional materials, such as videos and tutorials, might be inconvenient, since it necessitates students to go through different resources on many platforms. Moreover, the absence of a centralized system for managing and interacting with material obstructs cooperation and limits the possibility of tailored learning experiences.

The project named "Academic Resource Management System" aims to tackle these difficulties by providing a complete online application that aims to transform the educational experience at universities. This platform is created utilizing HTML, CSS, JavaScript, PHP, and MySQL technologies. It can be accessed using the XAMPP control panel. The platform offers a comprehensive solution for instructors and students to easily engage, collaborate, and access educational materials.

INTRODUCTION

The "Institutional Online Learning Platform" is an innovative internet-based system created to transform the educational experience inside universities. In the current age of rapid technological advancements, conventional learning techniques are changing quickly. This requires the development of creative solutions to cater to the requirements of both teachers and students. The objective of this project is to overcome these difficulties by developing a flexible and interactive platform that enables smooth communication, delivery of material, and cooperation between teachers and students.

This platform is constructed using HTML, CSS, JavaScript, PHP, and MySQL technologies. It provides a user-friendly interface that can be accessed using the XAMPP control panel. It functions as a centralized platform where faculty members may submit instructional resources, such as videos and tutorials, specifically designed for their courses. Students have the ability to use these resources, connect with interactive elements, and work together with their classmates to improve their learning experience.

The "Institutional Online Learning Platform" enables institutions to embrace digital innovation and adapt to the changing requirements of contemporary education, with a specific emphasis on security, accessibility, and usability. This project aims to revolutionize the educational landscape by offering tools for individualized learning, content management, and data security. Its goal is to create a dynamic and engaging learning environment for both staff and students.

System version 1.3 under consideration:

The proposed system seeks to transform the institution's educational delivery by offering an online learning platform that can be accessed by both professors and students. Faculty members will possess the capacity to publish instructive films, create playlists, oversee material, and engage with students via comments and

conversations.

Students will be able to use a diverse selection of instructional films, as well as interact with them by like, commenting, and bookmarking. Additionally, they will have the opportunity to communicate with teachers and other students via the platform.

The system will include user authentication to guarantee safe access, a comprehensive database to store instructional material and user information, and an intuitive interface for easy navigation and use. The suggested technology would facilitate effortless cooperation and communication between instructors and students, fostering a more engaged and captivating learning environment. In summary, the suggested system would revolutionize the educational environment of the institution by offering a versatile and adaptable platform for teaching and learning in the modern era of technology.

LITERATURE SURVEY

Title: Toward Selection of Trustworthy and Efficient E-Learning Platform

Abstract: The e-learning industry is always changing and expanding, offering a wide range of eLearning resources to corporations, government organizations, and individuals. Given the rapid expansion of emerging economies striving to narrow the educational disparity, the significance of eLearning has become more robust than ever before. Due to its affordability, convenience, and widespread accessibility, e-learning is rapidly emerging as the primary educational influence of the twenty-first century. E-learning platforms have revolutionized the way students, specialists, and professors engage with the educational environment. Many academics have difficulties in determining the best appropriate platform from the multitude of options accessible for their specific situation. Assessing the advantages and disadvantages of each platform may assist global learners in creating customized learning alternatives that align with their financial resources and circumstances. This innovation is adaptable and constantly evolving to meet the needs of learners and educators worldwide. This article provides a concise summary of many well-known online learning systems. The primary aim of this article is to provide a comprehensive analysis of the progress made in e-learning platforms and assess them using a hybrid multiple criteria decision making (MCDM) model-oriented analysis in the context of pandemics and natural disasters. Additionally, the article aims to offer recommendations to users on how to navigate the challenges associated with selecting an e-learning platform.

Opening: Technological breakthroughs have greatly transformed education. Technology has transformed the entire training and teaching process into a virtual domain. Undoubtedly, eLearning has firmly established its presence in the educational domain. The advent of high-speed broadband internet has opened up new opportunities for multimedia learning. Social networking has had a substantial impact on education and is still undergoing development. E-learning is becoming more popular in the corporate sector. Companies utilize it to educate their staff, optimize processes, and expand their reach. Web-based training programs, blended learning, online learning, undergraduate distant learning, and immersive learning are all instances of e-learning that are used in research and other operational settings. Several respected educational institutions in Australia and the United States currently provide e-learning opportunities to overseas students. E-learning has been a distinct approach used in the last decade and continues to be utilized in the present. The term "e-learning" encompasses various concepts that refer to the utilization of digital tools for delivering educational content to individuals

seeking knowledge. The internet is the predominant medium for implementing these tools [2]. E-learning utilizes innovation and technology to enhance, advance, and expand educational resources, accessibility, and progress tracking. E-learning, originally developed as an online platform for universities to provide educational materials, is today used by other entities such as major enterprises, small businesses, government agencies, non-profit organizations, and trade associations. E-learning is being utilized by prominent industries such as healthcare, telecommunications, e-commerce, education, and infrastructure. Universities and other businesses are adopting e-learning, a kind of online instruction, for several reasons. Despite several developments in online training delivery, the importance of privacy and security needs has been largely overlooked in the present day. Presently, e-learning involves a multitude of activities beyond the mere dissemination of knowledge. E-learning is a collaborative and on-demand educational method that may be accessed on many digital platforms, including personal computers, laptops, and mobile devices. This dramatically promotes learner engagement and perseverance.

DESIGN

Design Engineering focuses on using different UML (Unified Modeling Language) diagrams to accomplish projects. Design is a purposeful and precise engineering depiction of an object that is intended to be constructed. Software design is the systematic process of transforming software requirements into a visual representation or model. Design is the domain in software engineering where quality is achieved. Design is the process of precisely converting client specifications into a final product.

SEQUENCE DIAGRAM

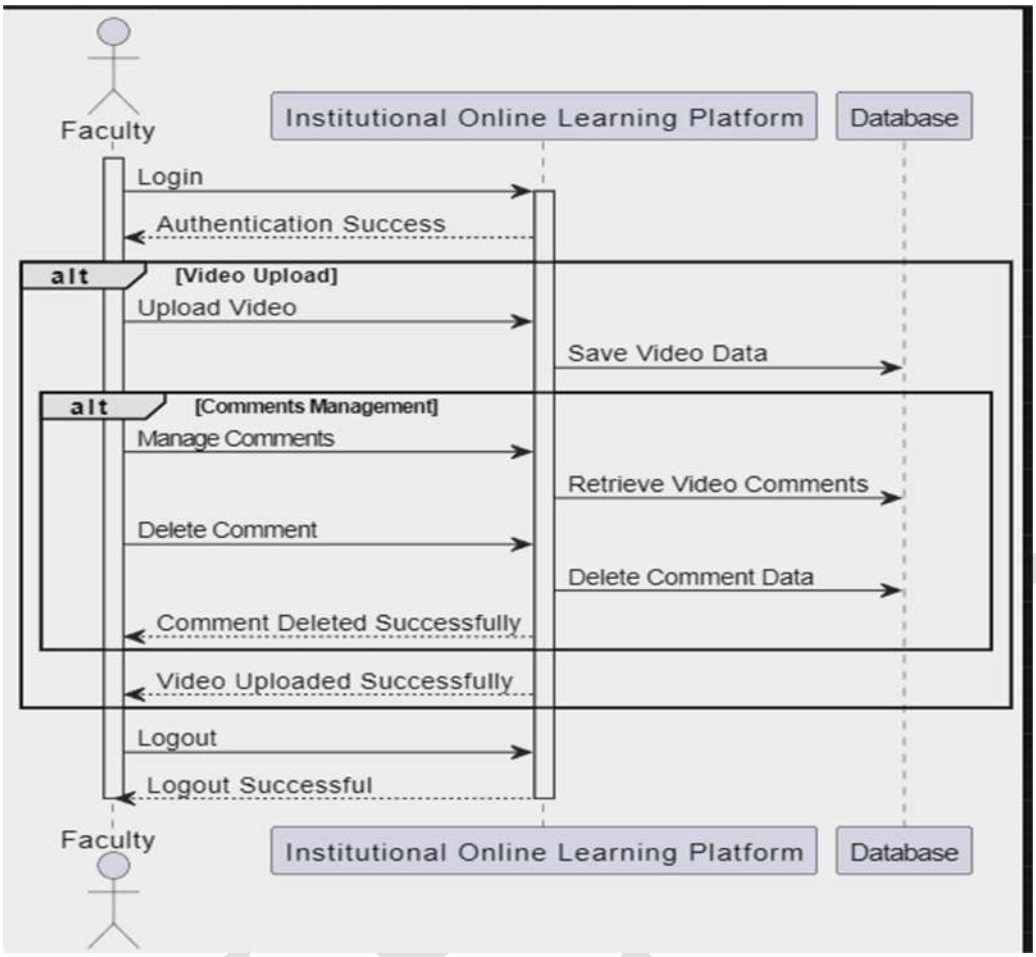

Fig.1-Sequence Diagram for Faculties

Fig.2-Sequence diagram for student

EXPLANATION:

- Both sequence diagrams start with the activation of the respective actor (Faculty or Student).
- The actor logs in to the platform.
- The platform authenticates the actor's credentials and responds with a success message.

- Each actor performs specific actions on the platform, such as uploading a video (Faculty) or viewing, liking, commenting, and bookmarking videos (Student).
- The platform interacts with the database to retrieve or update relevant data.
- The interactions are depicted in a sequential manner, illustrating the flow of actions between the actor, platform, and database.
- Finally, the actor logs out of the platform, and the platform confirms the successful logout.

ACTIVITY DIAGRAM:

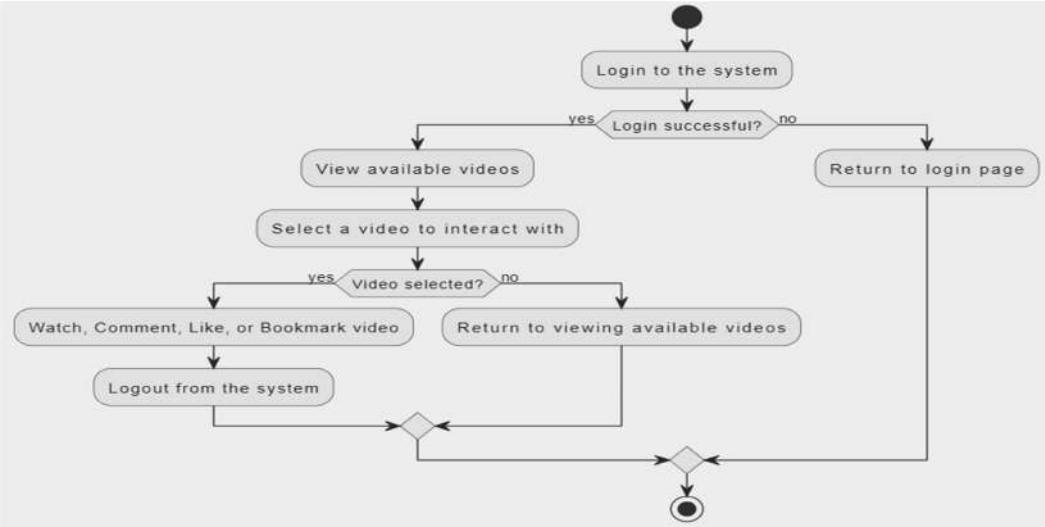

Fig.3-Activity Diagram for Students.

Explanation:

- The student starts by logging into the system.
- - If the login is successful, they can view available videos.
- - They have the option to select and watch a video.
- - They can choose to interact with the video by liking, commenting, or bookmarking it.
- - After completing their tasks, they log out from the system.
- - If the login is not successful, they return to the login page.

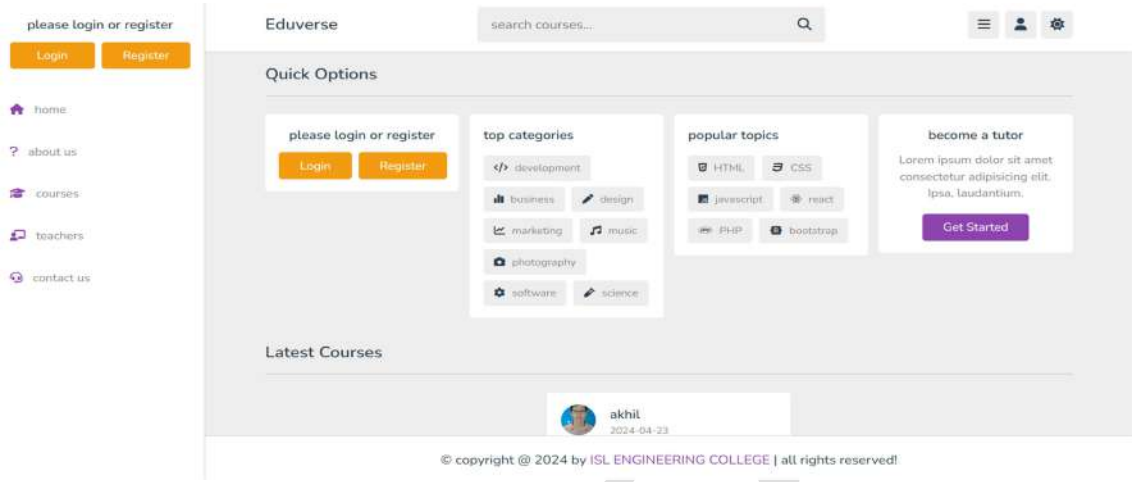

Fig 4: Describes the landing page for any user.

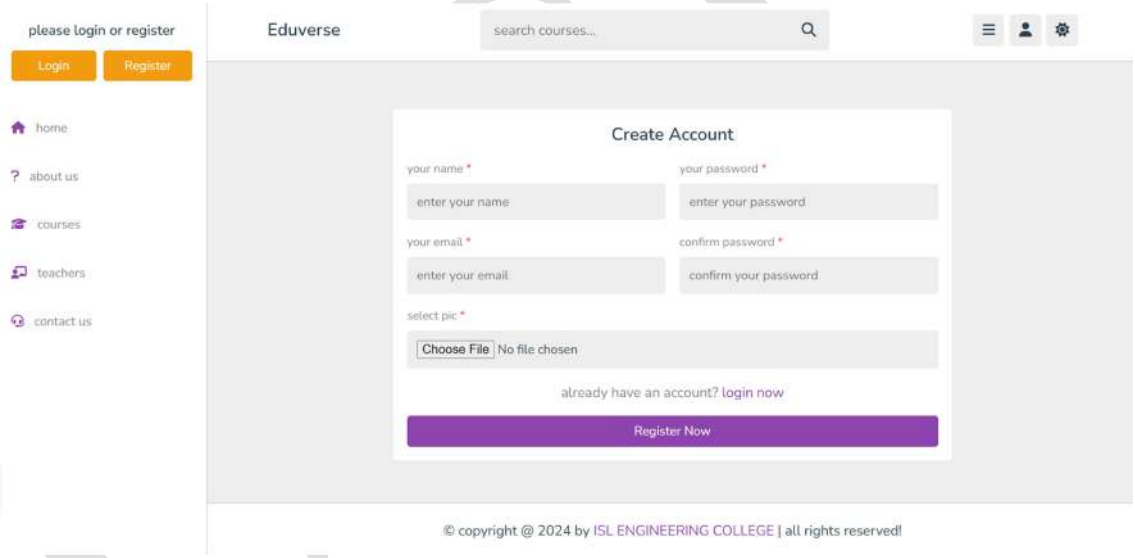

Fig 5: Describes the registration page.

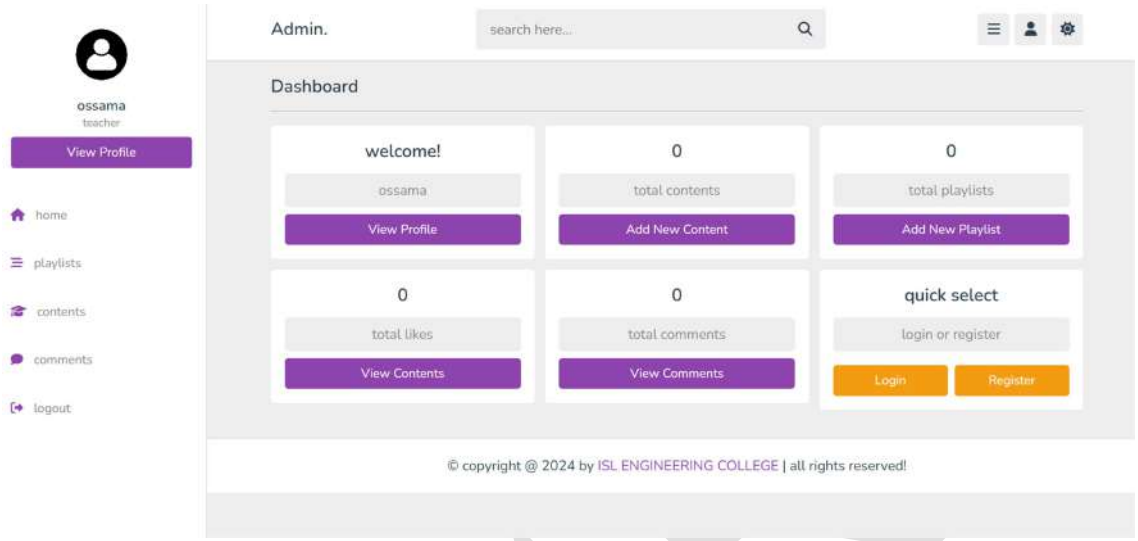

Fig-6: Describes the tutors page to upload.

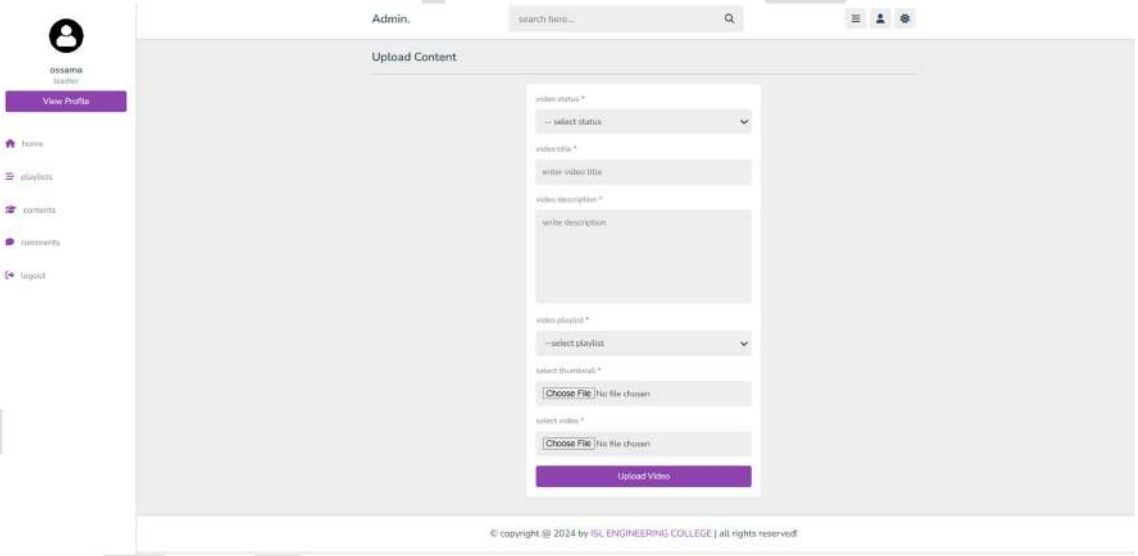

Fig-7: Describes the page to upload videos and playlists.

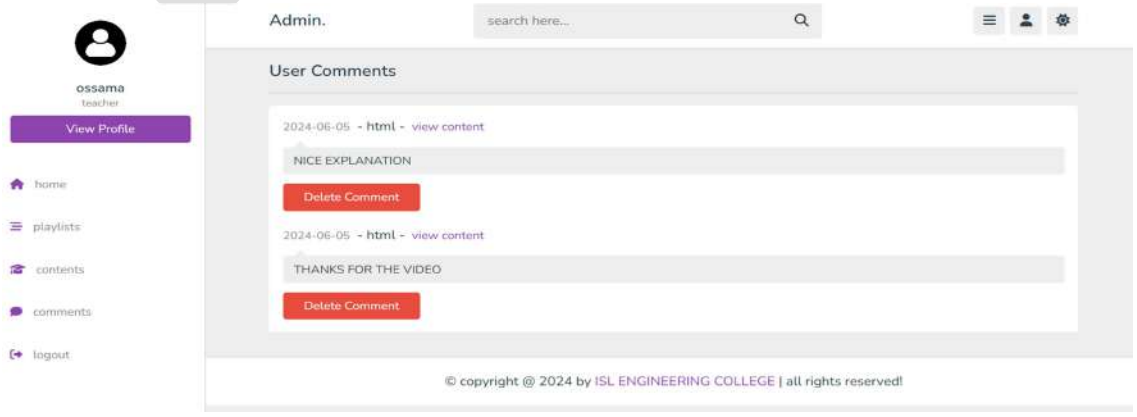

Fig-8: Handling comments.

CONCLUSION:

This paper outlines the creation of our educational platform using HTML, CSS, JavaScript, PHP, and MySQL, which represents a substantial effort in contemporary online technology. The objective of this project was to provide a user-friendly and effective platform for institutions to efficiently manage their instructional material. Conventional educational approaches often encounter difficulties in adjusting to the ever-changing requirements of teachers and students, resulting in inefficiencies in the delivery of material and student involvement. Furthermore, the absence of a centralized platform for the exchange of educational materials impedes the ability of stakeholders to access and collaborate with one another. Given the circumstances, there is an urgent need for a creative solution that simplifies the process of delivering information, improves student involvement, and promotes cooperation among members of the educational community. This project aims to tackle these difficulties by creating an Institutional Online Learning Platform, which is a full digital environment that enables faculty to easily exchange instructional information and offers students tailored learning experiences. Thus, by applying this project in a real-world setting, any institution may enhance their teaching services and establish a distinctiveness in their education system.

FUTURE ENHANCEMENTS:

Looking ahead, there are several avenues for future enhancements to elevate the website's capabilities:

1. Mobile Application Development: Develop mobile applications for iOS and Android to provide seamless access to Eduverse on the go, increasing accessibility and convenience for students and faculty.

2. Gamification: Introduce gamification elements such as badges, leaderboards, and rewards to enhance student motivation and engagement.

3. Social Learning Features: Add social learning features like discussion forums, study groups, and peer-to-peer mentoring to foster a collaborative learning environment.

4. AI-Powered Tutoring: Develop AI-powered tutoring systems that provide personalized support and guidance to students, helping them with difficult topics and assignments.

5. Integration with Third-Party Tools: Enhance interoperability by integrating with popular third-party educational tools and platforms, such as Google Classroom, Microsoft Teams, and various LMS platforms.

6.Enhanced Security Features: Implement advanced security measures, such as biometric authentication and blockchain technology for secure credentialing and data integrity.

7. Virtual Classrooms: Develop virtual classroom capabilities that include live streaming, interactive whiteboards, and real-time collaboration tools for synchronous learning.

8. Portfolio System: Introduce Portfolio system where students can showcase their work, track their progress, and reflect on their learning journey.

REFERENCES:

[1] Bader Alojiaman,(2020). Towards Selection of Trustworthy and Efficient E-Learning platform, IEEE Access ,9,133889-133901,

[2] Rahmi, Azitha, Isti Surjandari; Enrico Laoh. "Mining Information Search Pattern on Website. A Case Study of Educational Institution, "5th International Conference on Information Science and Control Engineering(ICISCE), Volume, published in Year 2018..Gretchan H Geng, Leigh P Disney, "A Need of Technology-Assisted Physical Activity in Young Indigenous Children's Health and Physical Education, "2nd, International Conference of Education Technology and Computer published in Year 2010, Volume 1.

[3] Nazish Nouman, Ahmer Umer, 2019, "Web Navigation and Usability Analysis of Educational Websites in Pakistan, "Seventh International Conference on web accessibility on Information processing and Communications.

[4] Jerald Nirmal, Anandhan, K, Kumar, N Suresh, Damodharan, D, "Smart Education Using Mobile Green Cloud Enabled Platform and Services", Springer, Cham, pages- 125-149, Jun 2020.

[5] Ijteba Sultana, Dr. Mohd Abdul Bari ,Dr. Sanjay," *Routing Performance Analysis of Infrastructure-less Wireless Networks with Intermediate Bottleneck Nodes*", International Journal of Intelligent Systems and Applications in Engineering, ISSN no: 2147-6799 IJISAE,Vol 12 issue 3, 2024, Nov 2023

[6] Md. Zainlabuddin, "*Wearable sensor-based edge computing framework for cardiac arrhythmia detection and acute stroke prediction*", Journal of Sensor, Volume2023.

[7] Md. Zainlabuddin, "*Security Enhancement in Data Propagation for Wireless Network*", Journal of Sensor, ISSN: 2237-0722 Vol. 11 No. 4 (2021).

[8] Dr MD Zainlabuddin, "*CLUSTER BASED MOBILITY MANAGEMENT ALGORITHMS FOR WIRELESS MESH NETWORKS*", Journal of Research Administration, ISSN:1539-1590 | E-ISSN:2573-7104 , Vol. 5 No. 2, (2023)

[9] Vaishnavi Lakadaram, " Content Management of Website Using Full Stack Technologies", Industrial Engineering Journal, ISSN: 0970-2555 Volume 15 Issue 11 October 2022

[10] Dr. Mohammed Abdul Bari,Arul Raj Natraj Rajgopal, Dr.P. Swetha ," *Analysing AWSDevOps CI/CD Serverless Pipeline Lambda Function's Throughput in Relation to Other Solution*", International Journal of Intelligent Systems and Applications in Engineering , JISAE, ISSN:2147-6799, Nov 2023, 12(4s), 519–526

[11] Ijteba Sultana, Mohd Abdul Bari and Sanjay," Impact of Intermediate per Nodes on the QoS Provision in Wireless Infrastructure less Networks", Journal of Physics: Conference Series, Conf. Ser. 1998 012029 , CONSILIO Aug 2021

[12] M.A.Bari, Sunjay Kalkal, Shahanawaj Ahamad," A Comparative Study and Performance Analysis of Routing Algorithms", in 3rd International Conference ICCIDM, Springer - 978- 981-10-3874-7_3 Dec (2016)

[13] Mohammed Rahmat Ali,: BIOMETRIC: AN e-AUTHENTICATION SYSTEM TRENDS AND FUTURE APLLICATION", International Journal of Scientific Research in Engineering (IJSRE), Volume1, Issue 7, July 2017

[14] Mohammed Rahmat Ali,: BYOD.... A systematic approach for analyzing and visualizing the type of data and information breaches with cyber security", NEUROQUANTOLOGY, Volume20, Issue 15, November 2022

[15] Mohammed Rahmat Ali, Computer Forensics -An Introduction of New Face to the Digital World, International Journal on Recent and Innovation Trends in Computing and Communication, ISSN: 2321-8169-453 – 456, Volume: 5 Issue: 7

[16] Mohammed Rahmat Ali, Digital Forensics and Artificial Intelligence ...A Study, International Journal of Innovative Science and Research Technology, ISSN:2456-2165, Volume: 5 Issue:12.

[17] Mohammed Rahmat Ali, Usage of Technology in Small and Medium Scale Business, International Journal of Advanced Research in Science & Technology (IJARST), ISSN:2581-9429, Volume: 7 Issue:1, July 2020.

[18]

[19] Mohammed Rahmat Ali, Internet of Things (IOT) Basics - An Introduction to the New Digital World, International Journal on Recent and Innovation Trends in Computing and Communication, ISSN: 2321-8169-32-36, Volume: 5 Issue: 10

[20] Mohammed Rahmat Ali, Internet of things (IOT) and information retrieval: an introduction, International Journal of Engineering and Innovative Technology (IJEIT), ISSN: 2277-3754, Volume: 7 Issue: 4, October 2017.

[21] Mohammed Rahmat Ali, How Internet of Things (IOT) Will Affect the Future - A Study, International Journal on Future Revolution in Computer Science & Communication Engineering, ISSN: 2454-424874 – 77, Volume: 3 Issue: 10, October 2017.

[22] Mohammed Rahmat Ali, ECO Friendly Advancements in computer Science Engineering and Technology, International Journal on Scientific Research in Engineering(IJSRE), Volume: 1 Issue: 1, January 2017

[23] Ijteba Sultana, Dr. Mohd Abdul Bari ,Dr. Sanjay, "Routing Quality of Service for Multipath Manets, International Journal of Intelligent Systems and Applications in Engineering", JISAE, ISSN:2147-6799, 2024, 12(5s), 08–16;

[24] Mr. Pathan Ahmed Khan, Dr. M.A Bari,: Impact Of Emergence With Robotics At Educational Institution And Emerging Challenges", International Journal of Multidisciplinary Engineering in Current Research(IJMEC), ISSN: 2456-4265, Volume 6, Issue 12, December 2021,Page 43-46

[25] Shahanawaj Ahamad, Mohammed Abdul Bari, Big Data Processing Model for Smart City Design: A Systematic Review ", VOL 2021: ISSUE 08 IS SN : 0011-9342 ;Design Engineering (Toronto) Elsevier SCI Oct : 021

[26] Syed Shehriyar Ali, Mohammed Sarfaraz Shaikh, Syed Safi Uddin, Dr. Mohammed Abdul Bari, "Saas Product Comparison and Reviews Using Nlp", Journal of Engineering Science (JES), ISSN NO:0377-9254, Vol 13, Issue 05, MAY/2022

[27] Mohammed Abdul Bari, Shahanawaj Ahamad, Mohammed Rahmat Ali," Smartphone Security and Protection Practices", International Journal of Engineering and Applied Computer Science (IJEACS) ; ISBN: 9798799755577 Volume: 03, Issue: 01, December 2021 (International Journal,U K) Pages 1-6

[28] .A.Bari& Shahanawaj Ahamad, "Managing Knowledge in Development of Agile Software", in International Journal of Advanced Computer Science & Applications (IJACSA), ISSN: 2156-5570, Vol: 2, No: 4, pp: 72-76, New York, U.S.A., April 2011

[29] Imreena Ali (Ph.D), Naila Fathima, Prof. P.V.Sudha ,"Deep Learning for Large-Scale Traffic-Sign Detection and Recognition", Journal of Chemical Health Risks, ISSN:2251-6727/ JCHR (2023) 13(3), 1238-1253

[30] Imreena, Mohammed Ahmed Hussain, Mohammed Waseem Akram" An Automatic Advisor for Refactoring Software Clones Based on Machine Learning", Mathematical Statistician and Engineering ApplicationsVol. 72 No. 1 (2023)

[31] Mrs Imreena Ali Rubeena,Qudsiya Fatima Fatimunisa "Pay as You Decrypt Using FEPOD Scheme and Blockchain", Mathematical Statistician and Engineering Applications: https://doi.org/10.17762/msea.v72i1.2369 Vol. 72 No. 1 (2023)

[32]

[33]

[34] Imreena Ali , Vishnuvardhan, B.Sudhakar," Proficient Caching Intended For Virtual Machines In Cloud Computing", International Journal Of Reviews On Recent Electronics And Computer Science , ISSN 2321-5461,IJRRECS/October 2013/Volume-1/Issue-6/1481-1486

[35] Heena Yasmin, A Systematic Approach for Authentic and Integrity of Dissemination Data in Networks by Using Secure DiDrip, INTERNATIONAL JOURNAL OF PROFESSIONAL ENGINEERING STUDIES, Volume VI /Issue 5 / SEP 2016

[36] Heena Yasmin, Cyber-Attack Detection in a Network, Mathematical Statistician and Engineering Applications, ISSN:2094-0343, Vol.72 No.1(2023)

[37] Heena Yasmin, Emerging Continuous Integration Continuous Delivery (CI/CD) For Small Teams, Mathematical Statistician and Engineering Applications, ISSN:2094-0343, Vol.72 No.1(2023)