Departmental Activities in Education Using the Web-Based SSTM System

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Annotation: Many educational institutions, especially universities, are still employing antiquated, paper-based techniques to keep track of their faculty, students, and administrative operations. Report generation, record searching, file loss, and file damage are all common examples of the wasted time this causes. Our work showcases the capabilities of a modern online monitoring system that is both collaborative and cross-departmental. The system is currently being developed with the goals of simplifying the monitoring process, federating the work of all involved actors, and improving the educational opportunities available to students. Student and faculty responses indicate that this type of system can aid in sustaining a productive and mutually beneficial supervisory relationship.

Keywords: Application Programming Interfaces, Content Management System, Cascading Style Sheets, Graphical User Interface, Standard Generalized Markup Language, Staff Student Task Management.

Introduction:

Web development refers to the process of creating a website for the World Wide Web (WWW) or an internal network (intranet) (a private network) [1]. Web development encompasses the creation of everything from the simplest static single-page website to the most intricate online games, electronic shops, and social network services [3]. Common activities that fall under the umbrella term "Web development" include web engineering, web design, web content development, client/server scripting, managing a web server, setting up a secure network, and creating a platform for online commerce [4-8]. Web developers typically refer to the main non-design aspects of creating websites on the Web as "Web development," including things like authoring markup and coding [9]. Content management systems (CMS) are used in web development to allow for simpler and more accessible content updates that don't require advanced technical knowledge. Instead of being the purview of one particular group, building a website could be a team effort including several groups [10-13]. Web developers might choose to focus on either the front end, the back end, or the entire stack. While back-end developers focus on the servers, front-end developers take care of the user interface and its corresponding behaviour in the browser [14]. The system's overarching goal is to make sure all of the department's Activities can be accessed for as long as they're needed. Creating and safeguarding SSTM records as credible proof, maintaining a database on Staff and Student information, event records, leave credits on sick and vacation, and generating reports are also essential goals of SSTM [15-19].

Literature Survey

One essential step in a successful project-based learning methodology was provided by researchers Luis Fernando D'Haro1, Fernando Fernández-Martnez, Ricardo de Cordoba Herralde, and Juan M. Montero1 [2]: providing students with easy access to feedback so they can refine their work. With a large group of students and the impending project due date, this task becomes more challenging [20-23]. The ability to continuously evaluate students' progress is dependent on developing methods of objectively measuring their performance that do not add unnecessary work for educators [24]. To address these issues, we developed an online service through which students can schedule one-on-one assistance from a lab instructor by specifying the nature of their dilemma and the expertise they need. As a result of using this software, lab managers are better able to keep tabs on student progress, assess the contributions of all students involved, and schedule tutoring accordingly [25-29]. The software offers quantifiable metrics that can be utilised to back up a student's final grade [30]. The app's effectiveness has been corroborated by both objective and subjective feedback from 330 students, who were asked to rate their own experience with it. Warnings combine data and operations [31-35]. The alarm will be redirected if it is not acknowledged or dealt with in a timely fashion. In this article, we outline the framework via which we want to roll out Web Services for facilitating connections between schools and their mobile devices [36-41].

System Description

The current system for managing staff and student tasks is entirely manual [42]. The Head of Department (or an administrator) manually assigns homework to the class. Since everything is done manually in this system, completing assignments or preparing for events may take longer than necessary [43-47]. Identifying which student finished a job and when can be challenging for the HOD or staff because of the need to recall the time at which the student completed the activity. In its current state, the system is unable to facilitate students' access to relevant information at crucial moments or their efficient management of related duties in order to reach the ultimate objective [48-51].

Proposed System

The application is available to the Department Heads, Students, and Employees. Only Three will use the system [52]. There are three groups involved: The Head of Department, the students, and the teachers [53]. The Head of Department (HOD) is an administrative position with complete authority over their assigned division. Users can rely on this site to help them with routine activities [54]. We can get more done in less time with the online task management system for school. All departmental data, including employee and student databases, attendance records, and leave requests, can be stored here [55-59]. The website showcases the development and launch of the Task Management Platform. The programme offers a data programme layout and method for delegating work [60].

Advantages of The Proposed System

➢ It improves how an organisation is governed.
➢ Because of this, students are more likely to participate actively in school and extracurricular activities [61].
➢ Overall, it helps the department function better.
➢ As a result, less time is wasted on menial chores.
➢ Minimize the amount of time needed to retrieve and send student records (fig.1).
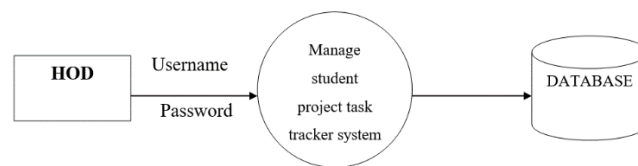
Fig. 1: Work Flow

Managing Director Access

Hod stores data such their name, department, username, and password. The HOD table is where these particulars are kept [62-69]. Hod enters a custom login and password to access the system. Everything, from adding new pupils to adding new employees, was under the sole control of the administration [70]. For reasons of safety, only Admin may access the Admin module. This module is private and cannot be accessed by anyone else [71-73].

Put Employees in Their Places

After logging in, the HOD can give tasks to the staff, which are recorded in tables with information such the title, description, due date, and time of submission [74].

Examine Work Schedules

Name, Title, Description, Assignment Date, Submission Date, Report, and Report Upload Date are just some of the details Hod may see about the Staff Assignments. The details are recovered [75-79].
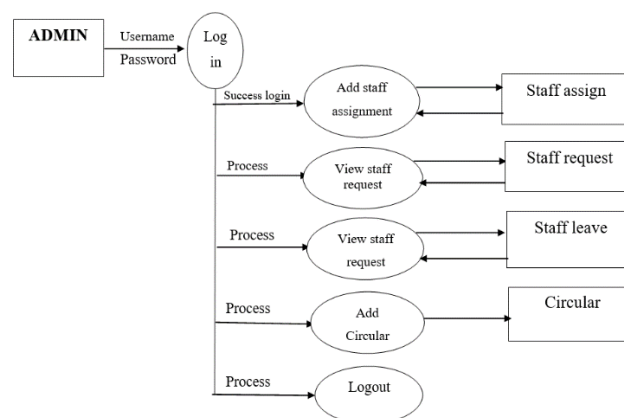
Fig. 2: HOD Module

User Registration

Data collected from employees includes Register number, Name, Branch, Age, Batch, and Semester [80]. Then, for safety reasons, the information is written down and kept in a file on the staff table. After that, employees can enter their credentials to sign in [81].

Take a Look at the Enrollment Information

A student's name, Register number, Branch, Age, Batch, and Semester can all be viewed here by authorised personnel [82].

Examine Work Schedules

Members of staff have access to information on Staff Assignments, including the Name, Title,

Description, Assignment Date, and Submission Date of each task. Workers are able to submit reports, and the dates they were submitted are recorded. The table is queried for these specifics [83-87].

Task Assigning

Using this section, teachers can give students homework. Information such as the name of the assignment, its description, the due date, and the date it was submitted [88].
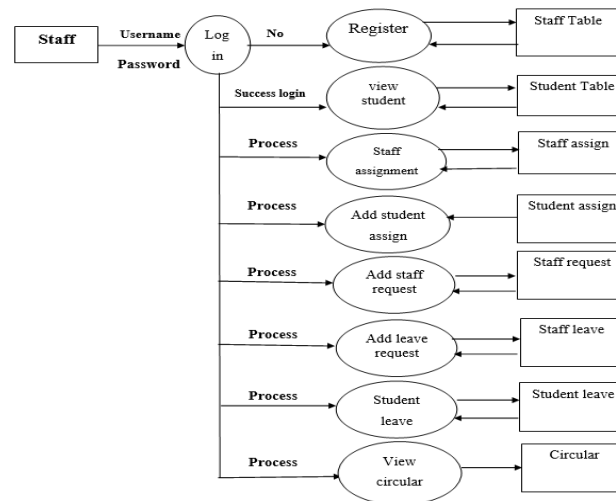
Fig. 3: Staff Module

A Student's Sign-In

Students fill out a form with information about themselves, such as their names, addresses, phone numbers, majors, and qualifications [89]. The information is then recorded in a database row labelled "student." A student's username and password are their entry points into the system; if authentication fails, they will not be able to access the system at all [90-93].

Find Out More About a Student's Task

The Title, Description, Assignment Date, Submission Date, Report, and Report Upload Date for each student's assignments are all viewable in this section [94].

Request to Add a Student

Students can fill out the request's specifics in this section, including their names, the assignment's titles and descriptions, the due dates for both the assignment and the report, and the upload dates for both. A table stores all of this information [95-97].

Include Request to Leave

Using this section, students can fill out their leave requests by entering their Name, Start Date, End Date, Reason, and Length of Leave [98].
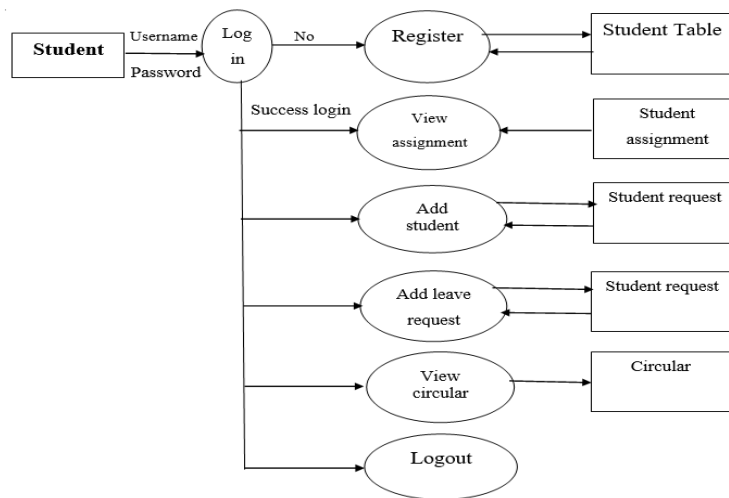
Fig. 4: Student Module

Software Description

HTML is an application of the 1986 international standard SGML. SGML lets hyper documents be exchanged. SGML is used to describe document markup systems formally [99]. HTML employs SGML to describe a hyper-structure document's and interconnection. TBL introduced HTML in 1990 after SGML. Since then, it's been straightforward to use yet sometimes restricting. MIT's W3c is addressing these limitations. HTML had to start somewhere, and its success shows it wasn't too awful. HTML code

CSS

Cascading Style Sheets (CSS) describes the presentation of an HTML document. CSS, along with HTML and JavaScript, is a Web staple. CSS separates style, colours, and fonts from content. This separation can increase content accessibility, provide more freedom and control in defining presentation features, allow numerous web pages to share formatting by declaring CSS in a separate.css file, and reduce structural complexity and repetition. Separating formatting from content allows you to deliver the same HTML page in different styles for different rendering techniques, such as on-screen, in print, or by voice (through speech-based browser or screen reader).

Javascript

Dynamic programming language JavaScript. It's lightweight and utilised in web pages to allow client-side scripts to interact with users and create dynamic sites. Object-oriented interpreted programming language. Netscape renamed LiveScript to JavaScript due to Java's popularity. JavaScript debuted in Netscape 2.0 as LiveScript in 1995. Netscape, Internet Explorer, and other browsers embed the language's core. Most JavaScript is client-side. The code must be included in or referenced by an HTML document.

PHP

HTTP Preprocessor (PHP) PHP runs on Apache or IIS. Free PHP and Apache. Easy PHP code. PHP is a server-side scripting language. HTML files contain PHP scripts. "PHP," "php3," "php4," or "phtml" are PHP file extensions.

Using PHP

➢ Dynamize websites. Different users or times of day can see different PHP content.

➢ HTML form processing PHP can retrieve and process HTML form data.

➢ Creates database-driven websites. PHP may insert or retrieve MySQL data.

Working of PHP

Create dynamic pages. PHP can display different material for different users or times. Fill HTML forms. We can use PHP to retrieve and process HTML form data. Can generate DB-driven web pages. A PHP can insert or retrieve MySQL data.

➢ PHP contains server-side scripts.

➢ PHP provides several built-in objects.

MYSQL

MySQL Server is a robust database management solution that doesn't require programming. It supports GUI features and a programming language, Phpmyadmin, to construct sophisticated apps. MySQL is feature-rich and can handle any database-related task. You can save your data, construct tools to read and alter it, and ask questions about it. MySQL contains data about connected items. MySQL databases contain data tables. It stores linked objects such

Database

➢ A database is user data like a phone book.

➢ MySQL databases contain tables, queries, and forms.

Tables

Name	Type	Collation	Attributes	Null	Default	Extra
asid	int(5)			No	None	AUTO_INCREMENT
staff	text	latin1_swedish_ci		No	None	
atitle	text	latin1_swedish_ci		No	None	
adescp	text	latin1_swedish_ci		No	None	
adate	date			No	None	
asdate	date			No	None	
student	text	latin1_swedish_ci		No	None	
report	text	latin1_swedish_ci		No	None	
rudate	text	latin1_swedish_ci		No	None	
request	text	latin1_swedish_ci		No	None	
reply	text	latin1_swedish_ci		No	None	

Table 1: Database Table for Student Assignment

MySQL tables are data collections. All tables can be arranged differently and contain different data, but they should be in the same database file. We might have a video store database file. Members, recordings, reservations, etc. These tables are maintained in the same database file since they're utilised to construct reports to fill out on-screen forms.

Relational Database

Relational database MySQL. Access helps us organise information in three ways.

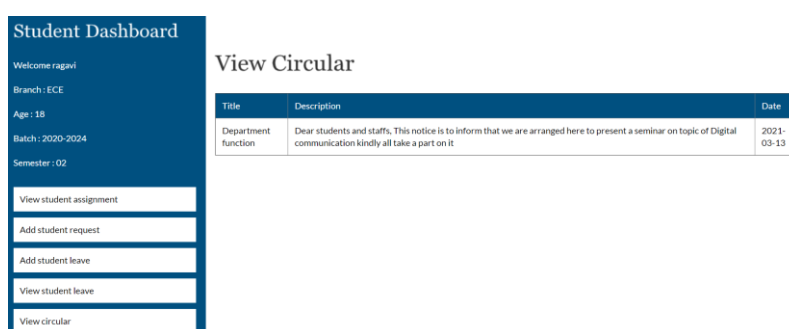Reduce redundancy, share information, and maintain accurate data.

Fields

We store information in table fields. MySQL speeds up database operations with key fields and indexing. MySQL may automatically or manually allocate key fields.

Result

In this figure, number 5, we see the process of giving out assignments explained. This task will be given to the student by the staff. Information such as students' names, teachers' names, assignment titles, descriptions, due dates, and start/end times will be displayed. Students can then use the see student assignment button to get specifics about their assignments. By submitting a "add student request," the student might request more time to complete the task. This chapter also features a database with information gathered during this procedure. As an added bonus, the circular will be distributed to the students for their perusal.

Fig. 5: View Circular by Students

Conclusion

The Staff, Student, Task Management System is a very helpful tool. The advantages of this system over the old one are numerous. The benefits include data centralization, real-time status reporting, user-friendliness, convenience, and protection, among others. This programme lessens the burden of managing and keeping track of the workings of individual departments in a university. The online software also has a user-friendly layout that makes it easier for students, teachers, and department heads to adopt it. All of the college's departments can take advantage of the present system because it was built for them. The project will be revised to construct or expand the system for use at multiple tiers of an institution or organisation. Added safety is possible with this. Using a combination of strong authentication measures and

References

1. Pooja K Dhule, Sayali Pramod Dalke, Shruti Anil Deshmukh, Janabai Govind Dalave. Vaishnavi Nitin Sasane "Web Based Staff Management System" IJSTE Vol-3 March-2017.

2. Luis Fernando D'Haro, Fernando Fernandez-Martinez, Ricardo de Cordoba Herralde, Juan M. Montero "A Web-based Application for the Management and Evaluation of Tutoring Requests in PBL-based Massive Laboratories" 2014.

3. MD Amanullah, Akram M. Zeki, Adamu Abubakar "Information-based Interactive Services and Support System" IEEE Conference on Systems, Process and Control (ICSPC 2017) December 2017.

4. Dickson K.W. Chiu1, Samuel P.M. Choi "Alert Driven Communications Management for Distance Learning"

5. S.R. Bharamagoudar "Web-Based Student Information Management System" International Journal of Advanced Research in Computer and Communication Engineering Vol-2, June 2013.

6. Rupapara, V., Narra, M., Gonda, N. K., Thipparthy, K., & Gandhi, S. (2020). Auto-Encoders for Content-based Image Retrieval with its Implementation Using Handwritten Dataset. 2020 5th International Conference on Communication and Electronics Systems (ICCES), 289–294. https://doi.org/10.1109/icces48766.2020.9138007

7. Rupapara, V., Thipparthy, K. R., Gunda, N. K., Narra, M., & Gandhi, S. (2020). Improving video ranking on social video platforms. 2020 7th International Conference on Smart Structures and Systems (ICSSS), 1–5. https://doi.org/10.1109/icsss49621.2020.9202153

8. Rupapara, V., Narra, M., Gonda, N. K., & Thipparthy, K. (2020). Relevant Data Node Extraction: A Web Data Extraction Method for Non Contagious Data. 2020 5th International Conference on Communication and Electronics Systems (ICCES), 500–505. https://doi.org/10.1109/icces48766.2020.9137897

9. Ishaq, A., Sadiq, S., Umer, M., Ullah, S., Mirjalili, S., Rupapara, V., & Nappi, M. (2021). Improving the Prediction of Heart Failure Patients' Survival Using SMOTE and Effective Data Mining Techniques. IEEE Access, 9, 39707–39716. https://doi.org/10.1109/access.2021.3064084

10. Rustam, F., Khalid, M., Aslam, W., Rupapara, V., Mehmood, A., & Choi, G. S. (2021). A performance comparison of supervised machine learning models for Covid-19 tweets sentiment analysis. PLOS ONE, 16(2), e0245909. https://doi.org/10.1371/journal.pone.0245909

11. Yousaf, A., Umer, M., Sadiq, S., Ullah, S., Mirjalili, S., Rupapara, V., & Nappi, M. (2021b). Emotion Recognition by Textual Tweets Classification Using Voting Classifier (LR-SGD). IEEE Access, 9, 6286–6295. https://doi.org/10.1109/access.2020.3047831

12. Sadiq, S., Umer, M., Ullah, S., Mirjalili, S., Rupapara, V., & NAPPI, M. (2021). Discrepancy detection between actual user reviews and numeric ratings of Google App store using deep learning. Expert Systems with Applications, 115111. https://doi.org/10.1016/j.eswa.2021.115111

13. Rupapara, V., Thipparthy, K. R., Gunda, N. K., Narra, M., & Gandhi, S. (2020). Improving video ranking on social video platforms. 2020 7th International Conference on Smart Structures and Systems (ICSSS), 1–5. https://doi.org/10.1109/icsss49621.2020.9202153

14. Abdolmaleky, M., Naseri, M., Batle, J., Farouk, A., & Gong, L. H. (2017). Red-Green-Blue multi-channel quantum representation of digital images. Optik, 128, 121-132.

15. Abulkasim, H., Alsuqaih, H. N., Hamdan, W. F., Hamad, S., Farouk, A., Mashatan, A., & Ghose, S. (2019). Improved dynamic multi-party quantum private comparison for next-generation mobile network. IEEE Access, 7, 17917-17926.

16. Abulkasim, H., Farouk, A., Alsuqaih, H., Hamdan, W., Hamad, S., & Ghose, S. (2018). Improving the security of quantum key agreement protocols with single photon in both polarization and spatial-mode degrees of freedom. Quantum Information Processing, 17(11), 1-11.

17. Abulkasim, H., Farouk, A., Hamad, S., Mashatan, A., & Ghose, S. (2019). Secure dynamic multiparty quantum private comparison. Scientific reports, 9(1), 1-16.

18. Adil, M., Ali, J., Attique, M., Jadoon, M. M., Abbas, S., Alotaibi, S. R., ... & Farouk, A. (2021).

Three Byte-Based Mutual Authentication Scheme for Autonomous Internet of Vehicles. IEEE Transactions on Intelligent Transportation Systems.

19. Adil, M., Attique, M., Khan, M. M., Ali, J., Farouk, A., & Song, H. (2022). HOPCTP: A Robust Channel Categorization Data Preservation Scheme for Industrial Healthcare Internet of Things. IEEE Transactions on Industrial Informatics.

20. Adil, M., Jan, M. A., Mastorakis, S., Song, H., Jadoon, M. M., Abbas, S., & Farouk, A. (2021). Hash-MAC-DSDV: Mutual Authentication for Intelligent IoT-Based Cyber-Physical Systems. IEEE Internet of Things Journal.

21. Adil, M., Khan, M. K., Jadoon, M. M., Attique, M., Song, H., & Farouk, A. (2022). An AI-enabled Hybrid lightweight Authentication Scheme for Intelligent IoMT based Cyber-Physical Systems. IEEE Transactions on Network Science and Engineering.

22. Adil, M., Khan, M. K., Jamjoom, M., & Farouk, A. (2021). MHADBOR: AI-enabled Administrative Distance based Opportunistic Load Balancing Scheme for an Agriculture Internet of Things Network. IEEE Micro.

23. Adil, M., Song, H., Ali, J., Jan, M. A., Attique, M., Abbas, S., & Farouk, A. (2021). EnhancedAODV: A Robust Three Phase Priority-based Traffic Load Balancing Scheme for Internet of Things. IEEE Internet of Things Journal.

24. Aoudni, Y., Donald, C., Farouk, A., Sahay, K. B., Babu, D. V., Tripathi, V., & Dhabliya, D. (2022). Cloud security based attack detection using transductive learning integrated with Hidden Markov Model. Pattern Recognition Letters, 157, 16-26

25. Farouk, A., Alahmadi, A., Ghose, S., & Mashatan, A. (2020). Blockchain platform for industrial healthcare: Vision and future opportunities. Computer Communications, 154, 223-235.

26. Farouk, A., Batle, J., Elhoseny, M., Naseri, M., Lone, M., Fedorov, A., ... & Abdel-Aty, M. (2018). Robust general N user authentication scheme in a centralized quantum communication network via generalized GHZ states. Frontiers of Physics, 13(2), 1-18.

27. Farouk, A., Zakaria, M., Megahed, A., & Omara, F. A. (2015). A generalized architecture of quantum secure direct communication for N disjointed users with authentication. Scientific reports, 5(1), 1-17.

28. Heidari, S., Abutalib, M. M., Alkhambashi, M., Farouk, A., & Naseri, M. (2019). A new general model for quantum image histogram (QIH). Quantum Information Processing, 18(6), 1-20.

29. Mendonça, R. V., Silva, J. C., Rosa, R. L., Saadi, M., Rodriguez, D. Z., & Farouk, A. (2021). A lightweight intelligent intrusion detection system for industrial internet of things using deep learning algorithm. Expert Systems, e12917.

30. Metwaly, A. F., Rashad, M. Z., Omara, F. A., & Megahed, A. A. (2014). Architecture of multicast centralized key management scheme using quantum key distribution and classical symmetric encryption. The European Physical Journal Special Topics, 223(8), 1711-1728.

31. Naseri, M., Abdolmaleky, M., Laref, A., Parandin, F., Celik, T., Farouk, A., ... & Jalalian, H. (2018). A new cryptography algorithm for quantum images. Optik, 171, 947-959.

32. Naseri, M., Abdolmaleky, M., Parandin, F., Fatahi, N., Farouk, A., & Nazari, R. (2018). A new

quantum gray-scale image encoding scheme. Communications in Theoretical Physics, 69(2), 215.

33. Naseri, M., Heidari, S., Baghfalaki, M., Gheibi, R., Batle, J., Farouk, A., & Habibi, A. (2017). A new secure quantum watermarking scheme. Optik, 139, 77-86.

34. Naseri, M., Raji, M. A., Hantehzadeh, M. R., Farouk, A., Boochani, A., & Solaymani, S. (2015). A scheme for secure quantum communication network with authentication using GHZ-like states and cluster states controlled teleportation. Quantum Information Processing, 14(11), 4279-4295.

35. Zhou, N. R., Liang, X. R., Zhou, Z. H., & Farouk, A. (2016). Relay selection scheme for amplify-and-forward cooperative communication system with artificial noise. Security and Communication Networks, 9(11), 1398-1404.

36. Zhu, F., Zhang, C., Zheng, Z., & Farouk, A. (2021). Practical Network Coding Technologies and Softwarization in Wireless Networks. IEEE Internet of Things Journal, 8(7), 5211-5218.

37. SS Priscila, M Hemalatha, "Improving the performance of entropy ensembles of neural networks (EENNS) on classification of heart disease prediction", Int J Pure Appl Math 117 (7), 371-386, 2017.

38. S Silvia Priscila, M Hemalatha, " Diagnosisof heart disease with particle bee-neural network" Biomedical Research, Special Issue, pp. S40-S46, 2018.

39. S Silvia Priscila, M Hemalatha, " Heart Disease Prediction Using Integer-Coded Genetic Algorithm (ICGA) Based Particle Clonal Neural Network (ICGA-PCNN)", Bonfring International Journal of Industrial Engineering and Management Science 8 (2), 15-19, 2018.

40. Eliwa, M. M. The effect of some different types of learning within training programs in terms of self-determination theory of motivation on developing self-Academic identity and academic buoyancy and decreasing of mind wandering among university students in Egypt. Journal of Education -Sohag University, 92(92), 1–29, 2021.

41. Eliwa, M. M; Al Badri, A.H. Long and Short-Term Impact of Problem-Based and Example-Based STEM Learning on the Improvement of Cognitive Load among Egyptian and Omani Learners. Journal of Scientific Research in Education (JSRE)- Ain Shams University, 22(3), 713-742, 2021.

42. Eliwa, M. M. The Effectiveness of Digital Transformation of Learning on Students' Learning Experience, Students' Engagement and Perceived Intellectual Competence: A Mixed-Method Approach. Journal of Educational and Psychological Sciences- Fayoum University,15(3), 848-890, 2021.

43. Eliwa, M. M; Alshoukary, H. A. (2022). Modeling Causal Relationships between Academic Adjustment, Academic Striving and Future Expectations on Psychological Resilience and Cognitive Modifiability among Elementary School Students. Journal of the Faculty of Education Beni-Suef University(JFE), 19(116), 655-694. https://dx.doi.org/10.21608/jfe.2022.242784

44. Ravi Kumar Gupta, "A Study on Occupational Health Hazards among Construction Workers in India", International Journal of Enterprise Network Management. Vol. 12, No. 4, pp. 325-339, 2021.

45. Ravi Kumar Gupta, "Adoption of Mobile Wallet Services: An Empirical Analysis", Int. J. of

Intellectual Property Management, 2022, DOI: 10.1504/IJIPM.2021.10035526

46. Ravi Kumar Gupta, "Utilization of Digital Network Learning and Healthcare for Verbal Assessment and Counselling During Post COVID-19 Period", Technologies, Artificial Intelligence and the Future of Learning Post-COVID-19. Springer Nature, Switzerland, pp. 117-134, 2022.

47. J. Żywiołek, J. Rosak-Szyrocka, M. A. Khan, and A. Sharif, "Trust in Renewable Energy as Part of Energy-Saving Knowledge," Energies, vol. 15, no. 4, p. 1566, 2022, doi: 10.3390/en15041566.

48. J. Żywiołek, J. Rosak-Szyrocka, and B. Jereb, "Barriers to Knowledge Sharing in the Field of Information Security," Management Systems in Production Engineering, vol. 29, no. 2, pp. 114–119, 2021, doi: 10.2478/mspe-2021-0015.

49. S. Tiwari, J. Rosak-Szyrocka, and J. Żywiołek, "Internet of Things as a Sustainable Energy Management Solution at Tourism Destinations in India," Energies, vol. 15, no. 7, p. 2433, 2022, doi: 10.3390/en15072433.

50. J. Rosak-Szyrocka, J. Żywiołek, and M. Mrowiec, "Analysis of Customer Satisfaction with the Quality of Energy Market Services in Poland," Energies, vol. 15, no. 10, p. 3622, 2022, doi: 10.3390/en15103622.

51. J. Rosak-Szyrocka, J. Zywiolek, A. Zaborski, S. Chowdhury, and Y.-C. Hu, "Digitalization of higher education around the Globe during covid-19," IEEE Access, p. 1, 2022, doi: 10.1109/access.2022.3178711.

52. Guiamalon, T. S., & Hariraya, P. G. (2021). The K-12 Senior High School Programl: The Case Of Laboratory High School, Cotabato City State Polytechnic College, South Central Mindanao, Philippines. IJASOS-International E-journal of Advances in Social Sciences, 7(19), 391-399.

53. Kudto, N. M., Lumapenet, H. T., & Guiamalon, T. S. (2022). Students' Learning Experiences in The New Normal Education. Central Asian Journal of Theoretical & Applied Sciences, 3(5), 221-233.

54. Guiamalon, T. (2021). Teachers Issues and Concerns on The Use of Modular Learning Modality. IJASOS-International E-journal of Advances in Social Sciences, 7(20), 457-469.

55. Guiamalon, T. S. (2021). Graduate Education Programs: Its Relation to Graduates Work Competencies In The Workplace. IJAEDU-International E-Journal of Advances in Education, 7(19), 58-66.

56. Guiamalon, T. S. Social and Economic Development: State Universities and Colleges'(Suc's) Contribution Creativity Skills Of The Students In Recycling. Globus Journal of Progressive Education. Vol 12 / No 1 / Jan-Jun 2022 ISSN: 2231-1335

57. Guiamalon, T. S., Sandigan, D. A., & Dilna, S. G. The Impact of Alternative Learning System in Cotabato Division: A Case Study.

58. Guiamalon, Tarhata, et al. "Coping with COVID-19: How Public Secondary School Principals Adapt to the New Normal?." Guiamalon, TS, Lumapenet, HT (2022). Coping with COVID-19: How Public Secondary School Principals Adapt to the New Normal (2022): 2363-2367.

59. Guiamalon, T. (2021). Parental Interventions Towards Learners'mental Health In Times Of The Covid 19 Pandemic. IJAEDU-International E-Journal of Advances in Education, 7(20), 90-99.

60. Lumapenet, H. (2017). Influence of the Family on the Pupils' Reading Performance. Lumapenet, H. & Andoy, (2017), 21-22.

61. Kalipa, C. L., & Lumapenet, H. T. Customary Practices and Authorities in Conflict Resolution towards Peace Building of the Sultans, Rajahs and Datus of Buayan Sultanates in Southern Philippines.

62. Lumapenet, H. (2022). Multimedia: A Tool in Addressing the Reading Difficulties of Learners. Lumapenet, H., & Fronda, M, 2357-2362.

63. Lumapenet, H. (2017, September). Determinants of Bangsamoro Teacher's Identity. In Lumapenet, HT, & Sagadan, SA Determinants of Bangsamoro Teacher's Identity. 7th CEBU International Conference on Civil, Agricultural, Biological and Environmental Sciences (CABES-17) Sept (pp. 21-22).

64. Lumapenet, H. , & Usop, M. (2022). School Readiness towards the Delivery of Learning in the New Normal. International Journal of Early Childhood Special Education (INT-JECSE),Vol 14, Issue 03 2022, 2629-2637.

65. Parvathi K, Santhi T, Makeswari M, Nirmaladevi V, Rathinam R. Ricinus Communis Activated Charcoal Preparation, Characterization and Application for Methyl Red Adsorptive Removal. Orient J Chem 2022;38(1), Pg. 110-117.

66. A.Al Shraah, A. Abu-Rumman, F. Al Madi, F.A. Alhammad, A.A. AlJboor, "The impact of quality management practices on knowledge management processes: a study of a social security corporation in Jordan" The TQM Journal. Vol. ahead-of-print No. Issue ahead-of- print. Apr 2021. DOI: https://doi.org/10.1108/TQM-08-2020-0183

67. Abu-Rumman, A. Al Shraah, F. Al-Madi, T. Alfalah, "The impact of quality framework application on patients' satisfaction", International Journal of Human Rights in Healthcare, Vol. ahead-of-print No. Issue ahead-of- print. Jun2021. DOI: https://doi.org/10.1108/IJHRH-01-2021-0006.

68. Abu-Rumman, A. Al Shraah, F. Al-Madi, T. Alfalah, "Entrepreneurial networks, entrepreneurial orientation, and performance of small and medium enterprises: are dynamic capabilities the missing link?" Journal of Innovation and Entrepreneurship. Vol 10 Issue 29, pp 1-16. Jul 2021. DOI: https://doi.org/10.1186/s13731-021-00170-8

69. Abu-Rumman, Ayman. "Gaining competitive advantage through intellectual capital and knowledge management: an exploration of inhibitors and enablers in Jordanian Universities." Problems and Perspectives in Management 16, no. 3 (2018): 259-268.

70. Abu-Rumman, Ayman. "Transformational leadership and human capital within the disruptive business environment of academia." World Journal on Educational Technology: Current Issues 13, no. 2 (2021): 178-187.

71. Almomani, Reham Zuhier Qasim, Lina Hamdan Mahmoud Al-Abbadi, Amani Rajab Abed Alhaleem Abu Rumman, Ayman Abu-Rumman, and Khaled Banyhamdan. "Organizational Memory, Knowledge Management, Marketing Innovation and Cost of Quality: Empirical Effects from Construction Industry in Jordan." Academy of Entrepreneurship Journal 25, no. 3 (2019): 1528-2686.

72. Alshawabkeh, Rawan, Amani Abu Rumman, Lina Al-Abbadi, and Ayman Abu-Rumman. "The intervening role of ambidexterity in the knowledge management project success connection."

Problems and Perspectives in Management 18, no. 3 (2020): 56.

73. Al-Shqairat, Z. I., Al Shraah, A. E. M., Abu-Rumman, A., "The role of critical success factors of knowledge stations in the development of local communities in Jordan: A managerial perspective," Journal of management Information and Decision Sciences, vol. 23, no.5, pp. 510-526, Dec. 2020. DOI: 1532-5806-23-5-218

74. Brindha T, Rathinam R, Dheenadhayalan S, Sivakumar R. Nanocomposite Coatings in Corrosion Protection Applications: An Overview . Orient J Chem 2021;37(5), Pg.1062-1067.

75. D. K. Sharma, B. Singh, E. Herman, R. Regine, S. S. Rajest and V. P. Mishra, "Maximum Information Measure Policies in Reinforcement Learning with Deep Energy-Based Model," 2021 International Conference on Computational Intelligence and Knowledge Economy (ICCIKE), 2021, pp. 19-24, doi: 10.1109/ICCIKE51210.2021.9410756.

76. D. K. Sharma, B. Singh, M. Raja, R. Regin and S. S. Rajest, "An Efficient Python Approach for Simulation of Poisson Distribution," 2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS), 2021, pp. 2011-2014, doi: 10.1109/ICACCS51430.2021.9441895.

77. D. K. Sharma, B. Singh, R. Regin, R. Steffi and M. K. Chakravarthi, "Efficient Classification for Neural Machines Interpretations based on Mathematical models," 2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS), 2021, pp. 2015-2020, doi: 10.1109/ICACCS51430.2021.9441718.

78. F. Arslan, B. Singh, D. K. Sharma, R. Regin, R. Steffi and S. Suman Rajest, "Optimization Technique Approach to Resolve Food Sustainability Problems," 2021 International Conference on Computational Intelligence and Knowledge Economy (ICCIKE), 2021, pp. 25-30, doi: 10.1109/ICCIKE51210.2021.9410735.

79. G. A. Ogunmola, B. Singh, D. K. Sharma, R. Regin, S. S. Rajest and N. Singh, "Involvement of Distance Measure in Assessing and Resolving Efficiency Environmental Obstacles," 2021 International Conference on Computational Intelligence and Knowledge Economy (ICCIKE), 2021, pp. 13-18, doi: 10.1109/ICCIKE51210.2021.9410765.

80. Govinda rajulu Lanke and T.Bhuvaneswari, "Giving Intelligence to SMEs Business," International Journal of Business Intelligent, vol. 04, no. 02, p. 5, 2015.

81. J. A. Zarnan, W. M. Hameed , "On The Numerical Eigenvalues of a Spring-Mass System," International Journal of Computer Science and Mobile Computing, vol. 5(8), pp.51-54, Aug.2016.

82. J. A. Zarnan, W. M. Hameed , A. B .Kanbar, "A novel Approach for Solution of a Love's Integral Equation Using Chebyshev Polynomials," Int. Adv. Appl. Math. And Mech., 7(3), 96-101, March 2020.

83. J. A. Zarnan, W. M. Hameed , A. B .Kanbar, "New Numerical Approach for Solution of Nonlinear Differential Equations ," Journal of Hunan University., 49(7), 163-170, July 2022.

84. J. A. Zarnan, W. M. Hameed, "A comparison study between two approaches for solution of Urysohn integral equation by using statistical method," Int. J. Adv. Appl. Math. and Mech., vol.5 (4) , pp.65-68, 2018.

85. Kumar, Dhurjati .Rajeswara , Lanke, Govinda Rajulu, "Survey Of Cloud Computing and Its Development And Problem Solving," International Journal of Innovative Research

Explorer(ijire), vol. 6, no. 11, p. 8, 2018.

86. Lanke, Govinda Rajulu, "Strategic objectives modeling architecture for Real-Time Business Intelligence (BI)," International Journal of Scientific and Technology Research, vol. 2, no. 6, p. 4, 2013.

87. Lanke, Govinda Rajulu, "The Certainty of Bi System For SME," IJCSERD, vol. 1, no. 1, p. 4, 2014.

88. Lanke, Govinda Rajulu, "The Inevitability of BI systems for SME," International Conference On Emerging Trends In Science, Engineering And Technology, vol. 1, no. 3, p. 14, 2012.

89. Lanke, Govinda Rajulu. (2013), "Adaptation of Saas In B Usiness I Ntelligence For SME," IJOAR .org, vol. 1, no.3, p.14, 2013.

90. Rathinam R, Brindha T, Petchiammal M, Mohamed Ibrahim A, Photo-Electrocatalytic Degradation Of Aqueous Rhodamine B Dye Using Titanium Electrodes Coated With $RuO_2/IrO_2/TaO_2$, Indian Journal of Environmental protection, 41(12), pp.1365-1371, 2021.

91. U. Zulfiqar, S. Mohy-Ul-Din, A. Abu-Rumman, A. E. M. Al-Shraah, And I. Ahmed, "Insurance-Growth Nexus: Aggregation and Disaggregation," The Journal of Asian Finance, Economics and Business, vol. 7, no. 12, pp. 665–675, Dec. 2020. https://doi.org/10.13106/jafeb.2020.vol7.no12.665

92. Umadevi M, Rathinam R, Brindha T, Dheenadhayalan S, Pattabhi S, Application of Electro-Chemical Oxidation for the Treatment of Reactive Red 195 using Graphite Electrode, Asian Journal of Biological and Life Sciences, 2022,10 (3), 620-625.

93. W. M. Hameed, "The Role of Crossover on Optimization of a Function Problem Using Genetic Algorithms," International Journal of Computer Science and Mobile Computing, vol.5 (7), pp. 425-429, jul.2016.

94. W. M. Hameed, A. B. Kanbar, "Using GA for evolving weights in neural networks," Applied Computer Science, vol. 15 (3), pp.21-33. Sep.2019.

95. W. M. Hameed, A. B. Kanbar, J. A. Zarnan," Fast Algorithms To Find The Shortest Path Using Matrices," International Journal Of Scientific & Technology Research, vol. 7 (8),pp.159-161, Aug. 2018.

96. W. M. Hameed, A. B. Kanbar," A comparative study of crossover operators for genetic algorithms to solve travelling salesman problem," International Journal of Research–Granthaalayah, vol.5 (2), pp.284-291, Feb. 2017.

97. W.M. Hameed and N.A. Ali," Comparison of Seventeen Missing Value Imputation Techniques," Journal of Hunan University, vol. 49(7), pp.26-36, July 2022.

98. W.M. Hameed and N.A. Ali," Enhancing imputation techniques performance utilizing uncertainty aware predictors and adversarial learning," Periodicals of Engineering and Natural Sciences (PEN) , vol. 10(3), pp.350-367, Jun 2022.

99. Zafar, S.Z., Zhilin, Q., Malik, H., Abu-Rumman, A., Al Shraah, A., Al-Madi, F. and Alfalah, T.F. (2021), "Spatial spillover effects of technological innovation on total factor energy efficiency: taking government environment regulations into account for three continents", Business Process Management Journal, Vol. 27 No. 6, pp. 1874-1891. https://doi.org/10.1108/BPMJ-12-2020-0550