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A System for Rating and Reviewing Based on Features

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Abstract: Online review sites are a key customer and user feedback source. However, there is rampant misuse of such online platforms either by corporate entities promoting their products through fake reviews to boost their scores or by competitors and disgruntled/troll users trying to tarnish the credibility of the product in question by review bombing the sites. This novel system is a reliable review/rating system that uses machine learning, NLP and sentimental analysis to deliver acute informative feature-based reviews by users that filter out the unnecessary reviews that undermine the process and produce a straightforward representation that is not ambiguous as well as being easy for the user to infer from the review. Thus, the system ensures a fair review process for both user-side and organizational purposes with minimal human resources requirements. The review moderation task is also significantly simplified so that only a few experienced moderator staff are needed to maintain the system more lenient to the time that requires their active attention.

Keywords: *Maintain the System, Machine Learning, Informed Decisions, Consuming the Product, Sentimental Analysis*

Introduction

A review is a fundamental evaluation technique in which a person assesses a particular product, service, or even policy to judge its merits, criticisms, and overall significance, which can help in decision-making. This varies across fields, but the result is the same: people and organizations make informed decisions about consuming or not consuming the product, accept the item in question and judge [7]. The most common types of reviews in the public space are commercial reviews, such as product reviews, movie and entertainment reviews, and service reviews, which are attributed to the service-providing organization [8]. Gone are the days when people mostly relied on review magazines and physical review outlets with esteemed critics and reviewers who acted as the primary source of information besides advertisements on which people made informed decisions [9-12].

In the modern age, with the rise of online review sites as early as the 1990s, people use the internet as their main source of free information to view what they want to see, what they want to decide and what they want to do. Naturally, people and companies wanted to make use of this and created their e-commerce websites to facilitate online shopping and distribution [13-17]. In that regard, they created a facility on the sites so that normal people, not just the critics and other professional reviewers, can post their reviews, and others can see them. This provided a lucrative opportunity for organizations and customers to gain useful insights without making people participate in restrictive practices to gain feedback [18-25]. But like with anything, these online review systems have plenty of loopholes that we identified in our study and the existing systems; it is observed that this still hasn't been rectified properly, resulting in a loss of review credibility, less motivation to put up a review online and damages caused by said shortcomings [26-31].

In this paper, we have proposed an implementation of an online review system that factors in the various aspects that are required to consider a review as a valid review as we formulated a meticulous approach to filter out the unwanted reviews and calculate the fair review score that has very little discrepancy in respect to the actual opinions [32-39]. To make the review process more credible, we allow the user who wants to post a product review link to their purchase details, like an invoice, that an API can authenticate to mark as "verified reviews". Meanwhile, our system will not allow unregistered users to post reviews or rate products as anonymous because most cyber attacks/sabotage attempts on online reviews are due to said user accounts being anonymous, bots, and throwaway spam accounts. We propose a standardized rating scale so that the affinity of the score is not ambiguous. For that matter, any visual or numerical representation should be represented in the 100% percentage format (for star representation, the recommended amount would be five stars rather than four or less) [40-45]. Our system does not overcompensate information because too much trivial information is just as insightful as too little information.

Thus, this system is implemented modularly, and almost all modules are straightforward in their tasks and have a concise singular purpose. By implementing this system, the impact on review scores can be mitigated properly, leading to a fairer review process in which the customers and the organizations can gather useful insight without worrying too much about the credibility or

susceptibility of the reviews for a certain product [46-52]. Also, this system promotes fair review work among users so that users are encouraged to put up their reviews of the products that they have used. A competent online review site is valuable to all parties, especially in decision-making.

Literature Survey

How one gets feature-level ratings of mobile items from review votes and customer reviews affects decision-making for both new customers and manufacturers, according to Jerripothula et al. [1]. Compared to a grading system that only considers the product itself, this one provides a fuller view of the product. Product ratings don't tell you anything about the product's quality, but feature ratings do. It has always been important to know how customers rate features and which ones are lacking or succeeding. When making judgments about the product's improvement or purchase, it keeps both parties informed. Other aspects are of relevance to different types of clients. Personalization of purchasing decisions is thus possible with feature-level ratings.

According to Allahbakhsh et al. [2], it is crucial to compute reliable quality scores for both users and goods in online review systems. These scores represent the community's overall opinion on the things' quality. Simple aggregation, weighted aggregation, and iterative procedures are among the many suggested ways to calculate rating scores, and they all produce results that are within a reasonable margin of error. There are still significant obstacles that need to be overcome, particularly in the areas of temporal complexity, accuracy, and manipulation resilience. An innovative strategy is employed to give received reviews weights in the suggested method, which is a semi-iterative weighted aggregation technique.

In their work, Allahbakhsh and Ignjatovic, In order to make better selections when shopping online, many people use rating systems. Some users may attempt to gain popularity or financial gain by submitting false reviews on these platforms. Consequently, a crucial but challenging issue arises: how to objectively rate products or services. Most of the current solutions use clustering and temporal analysis, and they are based on the majority. Nevertheless, they can still be taken advantage of in coordinated, complex attacks. An iterative rating system is presented in this research that is highly resistant to collusion attempts as well as biassed and random raters. This method completely separates the credibility assessment of the cast evaluations from the ranking itself, unlike earlier iterative systems that relied on comparing submitted evaluations to an estimate of the final rating scores.

The study conducted by Hu et al. [4] Customers' online reviews have grown in importance as a resource for both buyers and sellers looking for information about a product's quality. Reviewer exposure, reviewer quality, reviewer impact over time, reviewer coverage of products, and other quantitative and qualitative factors are particularly important to users when evaluating online reviews. This research evaluates the efficacy of the online review market through a portfolio method, drawing on theories of uncertainty reduction and transaction cost economics. We demonstrate that customers are able to distinguish between positive and negative news and act appropriately. Customers pay close attention to review scores and other contextual information, such the reviewer's visibility and reputation, when they read reviews online.

Based on the work of Glenski et al., [5] With the rise of crowdsourced news and information curation, it's crucial to comprehend how people use social news websites to get their news and how they factor into their ranking systems. Our new data collection includes the activity records of 309 Reddit users over a year, and we're making it available to the public in this article. With the use of these freshly acquired statistics, we have discovered several interesting things about the participants' voting and browsing habits. Overall, 73% of postings were evaluated (i.e., upvoted or

downvoted) without first examining the content, indicating that the majority of users do not read the articles they vote on. Additionally, we demonstrate that the most probable voters experience cognitive weariness during their browsing periods.

Weninger and Glenski I [6], Knowing how social media influences people's actions is crucial at a time when more and more people are looking to the internet for news and opinions. When people use the internet to create and alter their own content, this becomes much more apparent. The results of two large-scale in vivo experiments in social media were reported to shed light on the influence of editorial ratings on online human behaviour. Outcomes were drastically altered when small, random ratings were applied to social media posts and comments, leading to substantial changes in downstream ratings. We observed that favourable treatments on posts had a herding effect that raised the final rating by an average of 11.02%, while no such effect was observed for comments. In contrast to previous research, we discovered that negative treatments on posts and comments had a negative herding impact, resulting in an average 5.15 percent drop in post ratings and a 37.4 percent drop in comment ratings.

System Analysis

Existing systems only represent the text-based Responses (reviews) in the form of visual representations (Like the 4-star or 5-star representations) or on a numerical scale (Eg. 1 to 10). Even though users can infer their opinions by just seeing that type of rating or the text in that review, most review platforms or review systems in an online website do not factor in the loopholes that can be exploited if the review policy is not rigid. Especially in an E-commerce environment or similar settings where concerned parties put out fake reviews to boost their scores to appeal to a wider customer base or competitors, disgruntled individuals review bombing certain products and services to undermine their target's credibility and cause unjust damages, both commercially and tangibly. As a result, these systems usually do not consider the actual consumer's view and experience. Fake, malicious, and inconsistent reviews are not filtered in the existing system [53-59]. This is exacerbated by discouraging users from posting reviews, and a major source of feedback for both customers and organizational-wise is lost. The key defective and negligent factors in the currently existing systems can be enumerated as follows:
With the help of Natural Language Processing (NLP) and sentimental analysis models, the proposed system filters out unnecessary reviews, which might ruin the review process. This system considers two types of reviews to be processed if they pass the client-side screening (Eg, Screening for profanity and large copypasta text): verified and unverified reviews. Reviews can be verified using an API to authenticate the purchase on the vendor site [60-67]. Meanwhile, unverified reviews are still valid, but they are more thoroughly processed and screened for abnormalities than verified reviews. The proposed system can prevent review bombing by tracking the number of reviews posted in a specific time and pausing the system if many reviews have been posted in very little time. Unlike existing systems that employ cumbersome and complex modules for their review system, this system is straightforward in its purpose, and only the reviews that may violate the policy are heavily scrutinized. By allowing feature-based ratings to be optional, only the information that users want to share more is used rather than splicing data from their text reviews because most reviews are subjective. After all, almost all users are not professional reviewers. A like counter on each user review allows reviews to be sorted in order of how many other users found that review helpful [68-75].

One type of supervised learning model is the support vector machine, which uses a linear boundary to partition the data into regions. The black circles and white ones are separated here by the linear boundary. To achieve their goals, supervised learning algorithms first need to construct a mathematical model of the input data and the output data. The information includes training examples and is referred to as training data. Every training example contains a supervisory signal, the intended output, and one or more inputs. A mathematical model uses a matrix to represent the training data and an array or vector, also known as a feature vector, to represent each training example. Supervised learning algorithms acquire the ability to anticipate the outcome linked with novel inputs by repeatedly optimising an objective function [76-81]. With the help of an ideal function, the algorithm can reliably predict the outcome for inputs that were not included in the training set. When an algorithm's outputs or predictions get progressively more accurate over time, we say that it has learned to do that task.

A branch of computer science, linguistics, and AI, natural language processing (NLP) focuses on how computers interact with human language, specifically on programming computers to handle and analyse massive volumes of natural language data. The end result is a machine that can "understand" text, down to the smallest details of context and language [82-91]. Once the papers have been properly categorised and organised, the system can accurately extract insights and information from them. Companies today utilise a variety of natural language processing (NLP) methods to sift through customer reviews and social media posts in order to gauge product sentiment.

Sentimental Analysis

Opinion mining, also known as emotion AI, or sentiment analysis, is a method for studying and methodically identifying subjective information and emotional states through the use of biometrics, computational linguistics, text analysis, and natural language processing. Marketing, customer service, and clinical medicine are just a few of the many fields that make use of sentiment analysis on internet and social media platforms, as well as on healthcare documents, reviews, and survey replies. Using clear phrases like "glad," "sad," "fearful," and "bored," knowledge-based approaches sort material into affect categories. Statistical methods utilise machine learning techniques like deep learning, ontologies, and support vector machines to uncover hidden semantics, whereas hybrid approaches combine machine learning with knowledge representation tools like ontologies and semantic networks to uncover hidden meaning [92-101].

One such document-oriented database tool is MongoDB, which is open-source and works on multiple platforms. The MongoDB database programme is a NoSQL database that uses documents similar to JSON with optional schemas. Under the terms of the Server Side Public License, MongoDB was created and is owned by MongoDB Inc. (SSPL). By distributing the database across numerous servers, MongoDB may either evenly distribute queries or create backup copies of data in the event of a hardware breakdown. Field, range, and regular expression searches are all available in MongoDB. In addition to returning whole documents or just certain fields, queries can also contain user-defined JavaScript functions [102-109].

System Study

An IOP (Input, Process, Output, Field, Program, and Procedure) design serves as the basis for the evaluation. To gauge the new system's performance, this can be measured in terms of data volumes, trends, updating frequency, etc. Feasibility studies are thus based on outlines. Python is a high-level programming language that has dynamic semantics and is interpreted. It is object-oriented. Its dynamic typing, binding, and high-level built-in data structures make it a great choice for scripting and glueing together different components, as well as for Rapid Application Development. Readability and reduced programme maintenance costs are prioritised by Python's concise and easy-to-learn syntax. Because of its modules and packages, Python promotes code reuse and software modularity [110-115]. Python and its vast standard library are freely distributable and available in source or binary form for all major platforms.

Python is a popular choice among programmers due to its ability to enhance productivity. This cycle of editing, testing, and debugging is lightning quick because compilation is not involved. Python programme debugging is a breeze because segmentation faults are never caused by bugs or improper input. The interpreter instead throws an exception if it finds a mistake [116-121]. As soon as the programme fails to handle an exception, the stack trace is printed out by the interpreter. A source-level debugger provides a number of useful features, such as the ability to examine both local and global variables, evaluate expressions, set breakpoints, step through code lines by lines, and more. As evidence of Python's reflective capabilities, the debugger is written in Python. However, adding a few print statements to the source code is usually the fastest way to debug a programme. This straightforward approach is highly effective due to the fast edit-test-debug cycle (Figure 1).

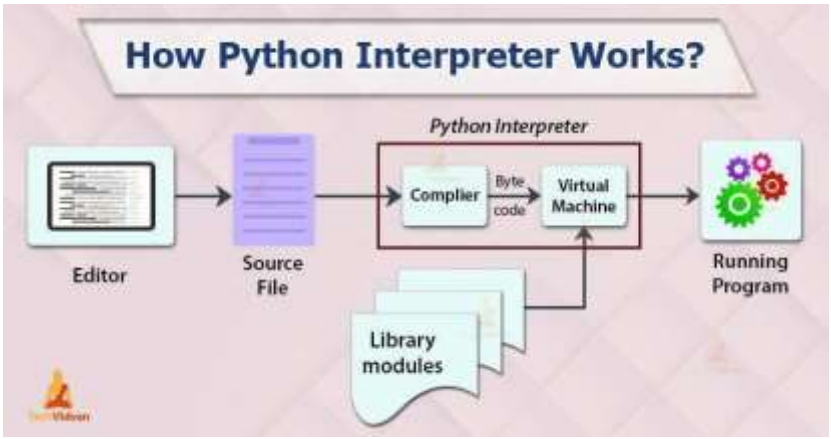

Figure 1: Python interpreter working

To begin, in order to write the code, you will need a Jupyter notebook. Also, the programmer can utilise their preferred text editor—Notepad++, Atom, Sublime Text, Visual Studio Code—as part of an integrated development environment.

You may compare Python to Java in that both are object-oriented programming languages. An interpreted language is what Python is. Instead of the conventional long list of instructions used by functional programming languages, Python makes use of interchangeable code modules.

Cpython is the name of the standard Python implementation. It is the most popular and default Python version [122-129].

Machine code is a form of computer code that hardware can interpret, however Python does not accomplish this. The process turns it into byte code. There is more than simply machine language involved in Python compilation. This is in byte code, which the CPU is unable to decipher. Consequently, you'll need an interpreter, specifically the Python virtual computer. To run the byte codes, the Python virtual machine is used (Figure 2).

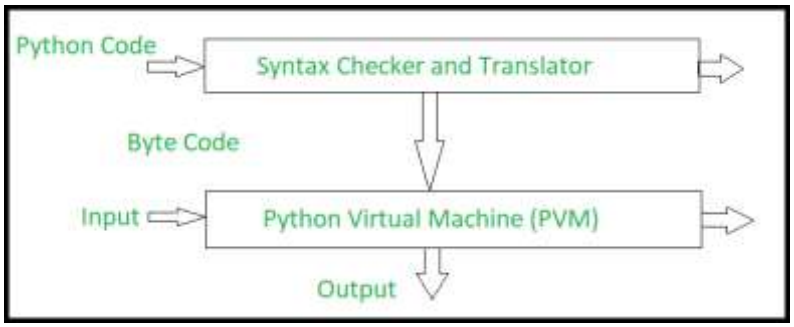

Figure 2: Internal Working of Python

One open-source web programme is the Jupyter Notebook, which lets users create and share documents with narrative text, mathematics, visualisations, and live code. Data processing and cleansing, numerical simulation, statistical modelling, data visualisation, machine learning, and many more applications are possible with this [130-135]. The notebook offers a web-based application that captures the complete computation process, including code development, documentation, execution, and results communication; it expands the console-based approach to interactive computing in a qualitatively new direction. The dashboard, which is the main page of the Jupyter Notebook web interface, displays all of the notebooks that are currently accessible in the directory (by default, the directory from which the notebook server was started). From the dashboard, you may create new notebooks. Bypassing the dashboard and opening a specific notebook straight from the command line is possible with jupyter notebook my notebook.ipynb when starting a notebook server. In the absence of an explicit extension, the.ipynb suffix is considered 136-137].

Whether you're on the dashboard or in the middle of an existing notebook, you can always create a new one by selecting File > New. A new tab will open in your browser when you create the new laptop, which is located in the same directory. A new entry will likewise appear in the dashboard's notebook list reflecting this. A single interactive session is linked to a kernel in an open notebook; this session runs the user-sent code and returns the results. Even after closing the browser window, this kernel is still active, and returning the same notebook from the dashboard will reestablish the connection between the web application and the same kernel. If the kernel is currently running on the dashboard, you'll see a Shutdown button; if it's not, you'll see a Delete button. Multiple clients can share a single kernel. You may obtain all the information you need to connect to the kernel by using this lengthy string, which is its ID. Running the percent connect _info magic on a notebook that is using the IPython kernel will display the connection data, including the same ID and other details (Figure 3).

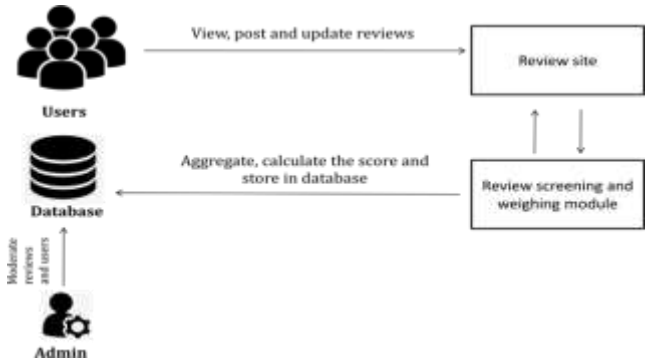

Figure 3: Architecture Diagram

As part of the signup process, we give consumers the option to create an account where they can rate and review things. During registration, you will be asked to submit personal details such as your name, email, password, date of birth, location, and contact number. After submission, the user's information will be saved in the database. They can then use their credentials to access the system and publish reviews. Even if they don't have an account, anonymous users and lurkers can still read the reviews and see the star ratings. Users must have this module. Users may do things like search for product reviews, sort reviews and products using search filters (like new), and then give a review a thumbs up if it's helpful. Additionally, other users can see the legitimate reviews that other users have posted on their profile page.

Products in the system can be rated and reviewed by registered user accounts. There is a strict screening procedure that all reviews must pass before they are published on the site. Verified and unconfirmed information are both taken into account in this module. The former involves the user confirming their purchase and subsequent delivery of the product using an API service to the vendor's site before writing the review. In the second case, real customers have written evaluations, but they omitted the product purchase information while responding to the review request. Accordingly, more time will be spent scanning and analysing unverified reviews compared to confirmed ones. Flagging or eliminating spam, sarcastic, false, inconsistent, or otherwise disruptive reviews is the responsibility of this module.

For a product review to be more informative, it can also include ratings about its features. This module allows the user to rate the features of the product they are reviewing, and only the relevant features are rated according to the product type. Unlike existing systems, the feature-level ratings will not be aggregated and weighted. Our module represents the feature rating as a means for obtaining insight into the product rather than allowing subjectivity and bias to ruin the perception of the product. As such, this module makes rating individual features optional. This module also makes up the screening module again for unverified reviews.

To compute the gross review score for a product, this module aggregates all the verified and unverified reviews and the flagged reviews and then obtains the review score using a formula that appropriately weighs all the reviews. Once a score is received, it is updated in the database, and the representation in the front end will be shown according to the score obtained. For newer reviews, the older reviews are not weighed and scanned again; instead, the old score and the newly

weighted aggregated scores for reviews are fed to the computational component, and the new score is updated.

The review representation module is a functional component of the system that is purely conceived to make the review scores and review posts insightful to the user on the front-end side. The system primarily uses the 100 scale (or) 0-100% rating scale. As a result, the system uses 5 stars for the star-type rating scale and 0-100% percentage-type rating scale. Also, this system represents certain review scores in a particular manner that is astute to the user so that they can make informed inferences. For example, when a review score is >80% or >90%, the system displays the product as "Recommended". Finally, each review has a like counter that measures the number of people finding that particular review to be relevant and insightful. Hence, this module is a great aid for users who don't want to dig deep into various reviews and think too much about the overall credibility of the user reviews posted on this platform.

The purpose of testing is to identify and fix bugs in a programme. The likelihood of discovering a bug that has not been found yet is high for a well-designed test case. An error that has not been found yet is revealed by a successful test. As a part of the implementation process, system testing verifies that the system performs as intended before going live. It ensures that the entire suite of programmes functions as expected. Adopting a new system successfully necessitates system testing, which entails a number of critical actions and stages.

When the programme, its documentation, and any associated data structures are finalised, testing can begin. Error correction in software relies heavily on testing. A programme or project is not considered finished until all requirements have been met. At its core, software testing is an inspection of the code and design specifications that constitutes the pinnacle of software quality assurance. Executing the software in order to locate the error is known as testing. Its purpose is to ensure that all of the software's modular components are working as intended. The module, the smallest building block of software, is the primary emphasis. Unit testing makes extensive use of the white-box testing approach. It controls the reaction time and device utilisation of the unit, the amount of time spent executing different components of the unit, and the programme throughput. Intentionally breaking the unit is the goal of stress testing. Looking at how a programmer handles a programme unit failing can teach you a lot about the program's strengths and weaknesses.

After integration testing is complete, the software is put together as a whole. The last round of software test validation has started, and all interface issues have been fixed. Many definitions exist for validation testing; one common one is that it is successful when the programme performs as the client reasonably anticipates. A battery of black box tests showing compliance with specifications is how software is validated. There are two possible outcomes following the validation test. In order to fix any mistakes or deviations found at this stage of the project, the user and project manager work together to negotiate a solution before the project is finished. The results of the validation tests show that the suggested system is functional as expected. While the system did have some flaws, they were far from disastrous.

The success or failure of a system hinges on how well its users accept it. Keeping in close contact with potential systems and users during development and making necessary adjustments allows us to evaluate the system for user approval. The following points are considered when doing this:

When testing software, it is common practise to use valid data sets as input. It verifies that the programme responds as anticipated to valid inputs. To ensure that the programme performs as intended, positive testing is carried out. One way to test a software application is via a negative test, which involves feeding it incorrect or faulty data. It verifies that the programme responds normally to unintended or bad user inputs. The goal of negative testing is to make sure the programme won't crash or become unstable when given incorrect data.

Conclusion

We present a new method for online reviews that is both efficient and successful in maintaining review process fairness. Viewing the weighted evaluations or comments through this system can provide valuable insights for both the organisation and its users. The solution is designed to be practical and cost-effective because ML and NLP require minimum human moderation. It is simple to incorporate this review system into preexisting infrastructure. It is reported to be significantly less computationally demanding, resulting in a more simplified procedure. This, in turn, is said to enhance the value of online reviewing by actively involving users in the review process without the hassles associated with current traditional systems. Using Machine Learning models in sentimental analysis, which use neural net-like internal systems to identify and carefully examine reviews that are obviously misleading—for example, some reviews might appear legitimate and thought to have contributed fairly at first glance, but upon closer inspection, it becomes clear that these reviews are either intentionally misleading or were written by a copywriter that a company hired. This allows for more accurate and objective evaluations. Modular, smart modules powered by AI rational agents also allow for more effective moderation of user monitoring and reviews.

References

1. K. R. Jerripothula, A. Rai, K. Garg, and Y. S. Rautela, “Feature-level rating system using customer reviews and review votes,” IEEE Trans. Comput. Soc. Syst., vol. 7, no. 5, pp. 1210–1219, 2020.
2. M. Allahbakhsh, H. Amintoosi, B. Behkamal, S. S. Kanhere, and E. Bertino, “AQA: An adaptive quality assessment framework for online review systems,” IEEE Trans. Serv. Comput., vol. 15, no. 3, pp. 1486–1497, 2022.
3. M. Allahbakhsh and A. Ignjatovic, “An iterative method for calculating robust rating scores,” IEEE Trans. Parallel Distrib. Syst., vol. 26, no. 2, pp. 340–350, 2015.
4. N. Hu, L. Liu, and J. J. Zhang, “Do online reviews affect product sales? The role of reviewer characteristics and temporal effects,” Inf. Technol. Manag., vol. 9, no. 3, pp. 201–214, 2008.
5. M. Glenski, C. Pennycuff, and T. Weninger, “Consumers and curators: Browsing and voting patterns on reddit,” IEEE Trans. Comput. Soc. Syst., vol. 4, no. 4, pp. 196–206, 2017.
6. M. Glenski and T. Weninger, “Rating effects on social news posts and comments,” ACM Trans. Intell. Syst. Technol., vol. 8, no. 6, pp. 1–19, 2017.
7. S. Rasool, A. Tariq, and Y. Hayat, “Maximizing Efficiency in Telemedicine: An IoT-Based Artificial Intelligence Optimization Framework for Health Analysis,” European Journal of Science, Innovation and Technology, vol. 3, no. 6, pp. 48–61, 2023.
8. Y. Hayat, M. Tariq, A. Hussain, A. Tariq, S. Rasool. "A Review of Biosensors and Artificial Intelligence in Healthcare and Their Clinical Significance." International Research Journal of Economics and Management Studies IRJEMS, vol. 3 no.1, 2024.

9. A. Husnain, H. K., Hussain, H. M., Shahroz, M. Ali, Y. Hayat. "Advancements in Health through Artificial Intelligence and Machine Learning: A Focus on Brain Health". Revista Espanola de Documentacion Cientifica, vol.18 no. 01, pp. 100-123, 2024.
10. Y. Hayat, A. Hussain, A. Tariq, S. Rasool. "Principles and Perspectives in Medical Diagnostic Systems Employing Artificial Intelligence (AI) Algorithms." International Research Journal of Economics and Management Studies IRJEMS, vol. 3, no.1, 2024.
11. A. Husnain, H. K. Hussain, H. M. Shahroz, M. Ali, Y. Hayat. "A Precision Health Initiative for Chronic Conditions: Design and Cohort Study Utilizing Wearable Technology, Machine Learning, and Deep Learning." International Journal of Advanced Engineering Technologies and Innovations, vol.1, no.2, pp. 118-139, 2024.
12. I. Bhatti, S. F. Mohi-U-din, Y. Hayat, M. Tariq, "Artificial Intelligence Applications for Students with Learning Disabilities: A Systematic Review." European Journal of Science, Innovation and Technology, vol. 4, no. 2, pp. 40-56, 2024.
13. I. Bhatti, M. Tariq, Y. Hayat, A. Tariq, S. Rasool. "A Multimodal Affect Recognition Adaptive Learning System for Individuals with Intellectual Disabilities." European Journal of Science, Innovation and Technology, no. 3, vol. 6, pp. 346-355, 2023.
14. Polo, O. C. C., Ochoa, J. A. V., Zapata, J. A. S., & Arango, D. A. G. (2023). Estado de la cuestión sobre tributación internacional. Revisión sistemática desde las directrices de prisma. Administración & Desarrollo, 53(1), 1-16.
15. Polo, Orlando Carmelo Castellanos, et al. "Estado de la cuestión sobre tributación internacional. Revisión sistemática desde las directrices de prisma." Administración & Desarrollo 53.1 (2023): 1-16.
16. Polo, Orlando Carmelo Castellanos, et al. "La auditoría forense¿ Un instrumento esencial de control interno en las entidades públicas?." Administración & Desarrollo 52.1 (2022): 95-112.
17. Polo, Orlando Carmelo Castellanos, et al. "Medellín District of Science, Technology and Innovation: An Opportunity to Reinforce the Curriculum of the Public Accounting Program with Artificial Intelligence?." Kurdish Studies 12.2 (2024): 2791-2801.
18. Polo, Orlando Carmelo Castellanos, et al. "Tax Evasion, Corruption And Tax Administrative Management." Russian Law Journal 11.2 (2023): 44-53.
19. Polo, Orlando Carmelo Castellanos, José Alexander Velásquez Ochoa, and Gladys Irene Arboleda Posada. "La doble tributación internacional sobre la inversión directa extranjera en América Latina y el Caribe." Administración & Desarrollo 51.1 (2021): 165-183.
20. Polo, Orlando Carmelo Castellanos; OCHOA, Jose Alexander Velasquez; ACOSTA, Juan Carlos Cardona. Financial Statements in Accordance with IFRS 16 for Leases in the Context of COVID 19. International Journal, 2023, vol. 10, no 1, p. 910-917.
21. Ramírez, N. J. G., Polo, O. C. C., Gaviria, D. A. G., Ochoa, J. A. V., Arango, D. A. G., & Vásquez, J. A. U. (2024). El perfil del Contador Público, ¿una respuesta a las necesidades organizacionales de las entidades sin fines de lucro en la Cuarta Revolución Industrial?. Revista de Gestão Social e Ambiental, 18(6), e05752-e05752.
22. Ramírez, Nini Johanna Guisao, et al. "El perfil del contador público, ¿una respuesta a las necesidades organizacionales de las entidades sin fines de lucro en la Cuarta Revolución Industrial?". Revista de Gestão Social e Ambiental 18.6 (2024): e05752-e05752.
23. Salazar, M. J. N., Henao, J. O. A., Uribe, H. A. N., Ochoa, J. A. V., Polo, O. C. C., & Ruiz, J. A. M. (2023). El impacto del impuesto sobre la renta en las finanzas personales en Colombia y Perú, 2019. Revista De Gestão E Secretariado, 14(11), 19533–19553.

24. M. Senbagavalli and G. T. Arasu, “Opinion Mining for Cardiovascular Disease using Decision Tree based Feature Selection,” Asian J. Res. Soc. Sci. Humanit., vol. 6, no. 8, p. 891, 2016.
25. M. Senbagavalli and S. K. Singh, “Improving patient health in smart healthcare monitoring systems using IoT,” in 2022 International Conference on Futuristic Technologies (INCOFT), pp. 1-7, Belgaum, India, 2022.
26. M. S. Valli and G. T. Arasu, “An Efficient Feature Selection Technique of Unsupervised Learning Approach for Analyzing Web Opinions,” Journal of Scientific & Industrial Research, vol. 75, no.4, pp. 221–224, 2016.
27. Suman, N., Rao, A., & Ranjitha, R. (2024, February). Forecasting air quality using random forest regression with hyperparameter optimization and LSTM network (RNN). In AIP Conference Proceedings (Vol. 2742, No. 1). AIP Publishing.
28. UN, R., & MA, G. (2023). BCDU-Net and chronological-AVO based ensemble learning for lung nodule segmentation and classification. Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization, 11(4), 1491-1511.
29. Ranjitha, U. N., & Gowtham, M. A. (2022). Hybrid Model Using K-Means Clustering for Volumetric Quantification of Lung Tumor: A Case Study. In Machine Learning and Autonomous Systems: Proceedings of ICMLAS 2021 (pp. 527-536). Singapore: Springer Nature Singapore.
30. Ashish, A. S., Honnappanavar, D. S., UN, R., & Kumar Reddy, B. G. (2021). Web-Based Expense Approval System. International Journal of Advanced Research in Computer Science, Vol. 12, no. S1, pp. 21-25, p.21.
31. Ranjitha, U. N., Meghana, N., & Sagar, S. (2017). Wireless clustering using Raspberry pi. Asian Journal of Engineering and Technology Innovation (AJETI), vol.2, 105-107.
32. Narayan Hampiholi, “Real-World Deployments of AR In Medical Training and Surgery”, Journal of Emerging Technologies and Innovative Research, vol. 10, no. 10, p. 8, 2023.
33. Narayan Hampiholi, “Medical Imaging Enhancement with Ai Models for Automatic Disease Detection and Classification Based on Medical Images”, International Journal of Engineering Applied Sciences and Technology, vol. 8, no. 5, p. 31-37, 2023.
34. Narayan Hampiholi, “21st Century Geriatric Care - Matching Advancing Devices to the Needs of the Aging Population”, Journal of Emerging Technologies and Innovative Research, vol. 10, no. 10, p. 7, 2023.
35. Narayan Hampiholi, “Through The Lens of Principled Data Practice a Groundbreaking Exploration into Ethical Healthcare Platforms”, International Journal of Engineering Applied Sciences and Technology, vol. 8, no. 5, p. 26-30, 2023.
36. I. Abdulazeez, S. I. Abba, J. Usman, A. G. Usman, and I. H. Aljundi, “Recovery of Brine Resources Through Crown-Passivated Graphene, Silicene, and Boron Nitride Nanosheets Based on Machine-Learning Structural Predictions,” ACS Appl. Nano Mater., 2023.
37. B. S. Alotaibi et al., “Sustainable Green Building Awareness: A Case Study of Kano Integrated with a Representative Comparison of Saudi Arabian Green Construction,” Buildings, vol. 13, no. 9, 2023.
38. S. I. Abba et al., “Integrated Modeling of Hybrid Nanofiltration/Reverse Osmosis Desalination Plant Using Deep Learning-Based Crow Search Optimization Algorithm,” Water (Switzerland), vol. 15, no. 19, 2023.

39. S. I. Abba, J. Usman, and I. Abdulazeez, “Enhancing Li + recovery in brine mining : integrating next-gen emotional AI and explainable ML to predict adsorption energy in crown ether-based hierarchical nanomaterials,” pp. 15129–15142, 2024.
40. J. Usman, S. I. Abba, N. Baig, N. Abu-Zahra, S. W. Hasan, and I. H. Aljundi, “Design and Machine Learning Prediction of In Situ Grown PDA-Stabilized MOF (UiO-66-NH2) Membrane for Low-Pressure Separation of Emulsified Oily Wastewater,” ACS Appl. Mater. Interfaces, Mar. 2024.
41. S. I. Ansarullah, S. Mohsin Saif, S. Abdul Basit Andrabi, S. H. Kumhar, M. M. Kirmani, and D. P. Kumar, “An intelligent and reliable hyperparameter optimization machine learning model for early heart disease assessment using imperative risk attributes,” J. Healthc. Eng., vol. 2022, pp. 1–12, 2022.
42. S. I. Ansarullah, S. M. Saif, P. Kumar, and M. M. Kirmani, “Significance of visible non-invasive risk attributes for the initial prediction of heart disease using different machine learning techniques,” Comput. Intell. Neurosci., vol. 2022, pp. 1–12, 2022.
43. M. M. Kirmani and S. I. Ansarullah, “Classification models on cardiovascular disease detection using Neural Networks, Naïve Bayes and J48 Data Mining Techniques,” International Journal of Advanced Research in Computer Science, vol. 7, no. 5, 2016.
44. M.M. Kirmani, & S.I. Ansarullah, “Prediction of heart disease using decision tree a data mining technique”. Int. J. Comput. Sci. Netw, 5(6), 2016.
45. E. Zanardo and B. Martini, “Secure and Authorized Data Sharing among different IoT Network Domains using Beez blockchain,” in 2024 27th Conference on Innovation in Clouds, Internet and Networks (ICIN), 2024, pages 122–129.
46. E. Zanardo, “Learningchain. A novel blockchain-based meritocratic marketplace for training distributed machine learning models,” in Software Engineering Application in Systems Design, Cham: Springer International Publishing, 2023, pp. 152–169.
47. M. Modekurti-Mahato, P. Kumar, and P. G. Raju, “Impact of emotional labor on organizational role stress – A study in the services sector in India,” Procedia Econ. Finance, vol. 11, pp. 110–121, 2014.
48. S. R. Balabantaray, “The impact of COVID-19 lockdown on adolescents and young adults’ lifestyle,” J. Informatics Education and Research, vol. 3, no. 2, 2023.
49. M. Mahato and K. Gaurav, “Collegiate cheating: Understanding the prevalence, causes, and consequences,” SocioEconomic Challenges, vol. 7, no. 3, pp. 152–163, 2023.
50. P. G. Raju and M. M. Mahato, “Impact of longer usage of lean manufacturing system (Toyotism) on employment outcomes - a study in garment manufacturing industries in India,” Int. J. Serv. Oper. Manag., vol. 18, no. 3, p. 305, 2014.
51. M. Mahato, “Performance Analysis of High, Medium and Low Companies in Indian Pharmaceuticals Industry,” IUP Journal of Management Research, vol. 10, no. 3, pp. 52–70, 2011.
52. M. Mahato, “Life satisfaction-what does it really mean to Indians?,” Purushartha-A journal of Management, vol. 7, no. 1, pp. 79–87, 2014.
53. M. Mahato and P. Kumar, “Emotional Labor - An Empirical Analysis of the Correlations of Its Variables,” European Journal of Business and Management, vol. 4, no. 7, pp. 163–168, 2012.
54. M. Mahato, “HR focus within the Indian information technology industry,” Prabandhan: Indian J. Manag., vol. 5, no. 5, p. 14, 2012.

55. M. Modekurti-Mahato and P. Kumar, “Organizational Role Stress - Empirical Evidences from India during Economic and Political Resentment,” Purushartha - A journal of Management,” Ethics and Spirituality, vol. 7, no. 2, pp. 30–39, 2014.
56. Reddy, A. R. P., & Ayyadapu, A. K. R. (2021). Securing Multi-Cloud Environments with AI And Machine Learning Techniques. Chelonian Research Foundation, 16(2), 01-12.
57. Reddy Ayyadapu, A. K. (2022). Privacy-Preserving Techniques in AI-Driven Big Data Cyber Security for Cloud. Chelonian Research Foundation, 17(2), 188-208.
58. Ayyadapu, A. K. R. (2022). Secure Cloud Infrastructures: A Machine Learning Perspective. International Neurourology Journal, 26(4), 22-29.
59. Ayyadapu, A. K. R. (2023). Enhancing Cloud Security with AI-Driven Big Data Analytics. International Neurourology Journal, 27(4), 1591-1597.
60. Reddy Ayyadapu, A. K. (2023). Optimizing Incident Response in Cloud Security with Ai And Big Data Integration. Chelonian Research Foundation, 18(2), 2212-2225.
61. Reddy, A. R. P., & Ayyadapu, A. K. R. (2020). Automating Incident Response: Ai-Driven Approaches To Cloud Security Incident Management. Chelonian Research Foundation, 15(2), 1-10.
62. Reddy, A. R. P. (2021). Machine Learning Models for Anomaly Detection in Cloud Infrastructure Security. NeuroQuantology, 19(12), 755-763.
63. Reddy, A. R. P. (2021). The Role of Artificial Intelligence in Proactive Cyber Threat Detection In Cloud Environments. NeuroQuantology, 19(12), 764-773.
64. B. Senapati and B. S. Rawal, “Adopting a deep learning split-protocol based predictive maintenance management system for industrial manufacturing operations,” in Lecture Notes in Computer Science, Singapore: Springer Nature Singapore, 2023, pp. 22–39.
65. B. Senapati and B. S. Rawal, “Quantum communication with RLP quantum resistant cryptography in industrial manufacturing,” Cyber Security and Applications, vol. 1, no. 100019, p. 100019, 2023.
66. B. Senapati et al., “Wrist crack classification using deep learning and X-ray imaging,” in Proceedings of the Second International Conference on Advances in Computing Research (ACR’24), Cham: Springer Nature Switzerland, 2024, pp. 60–69.
67. A. B. Naeem et al., “Heart disease detection using feature extraction and artificial neural networks: A sensor-based approach,” IEEE Access, vol. 12, pp. 37349–37362, 2024.
68. R. Tsarev et al., “Automatic generation of an algebraic expression for a Boolean function in the basis ∧, ∨, ¬,” in Data Analytics in System Engineering, Cham: Springer International Publishing, 2024, pp. 128–136.
69. R. Tsarev, B. Senapati, S. H. Alshahrani, A. Mirzagitova, S. Irgasheva, and J. Ascencio, “Evaluating the effectiveness of flipped classrooms using linear regression,” in Data Analytics in System Engineering, Cham: Springer International Publishing, 2024, pp. 418–427.
70. T. Arumugam, S. S. Hameed, and M. A. Sanjeev, “Buyer behaviour modelling of rural online purchase intention using logistic regression,” International Journal of Management and Enterprise Development, vol. 22, no. 2, pp. 139–157, 2023.
71. M. Kathikeyan, A. Roy, S. S. Hameed, P. R. Gedamkar, G. Manikandan, and V. Kale, “Optimization system for financial early warning model based on the computational intelligence and neural network method,” in 2022 5th International Conference on Contemporary Computing and Informatics (IC3I), 2022.

72. M. Mani, S. S. Hameed, and A. Thirumagal, “Impact of ICT Knowledge, Library Infrastructure Facilities On Students’usage Of E-Resources-An Empirical Study,” Library Philosophy and Practice, 2019.
73. T. Banerjee, A. Trivedi, G. M. Sharma, M. Gharib, and S. S. Hameed, “Analyzing organizational barriers towards building postpandemic supply chain resilience in Indian MSMEs: a grey-DEMATEL approach,” Benchmarking, vol. 30, no. 6, pp. 1966–1992, 2023.
74. S. S. Hameed and S. Madhavan, “Impact of Sports celebrities endorsements on consumer behaviour of low and high Involvement consumer products,” XIBA Business Review (XBR), vol. 3, no. 1–2, pp. 13–20, 2017.
75. S. S. Hameed, S. Madhavan, and T. Arumugam, “Is consumer behaviour varying towards low and high involvement products even sports celebrity endorsed,” International Journal of Scientific and Technology Research, vol. 9, no. 3, pp. 4848–4852, 2020.
76. S. R. Yerram et al., “The role of blockchain technology in enhancing financial security amidst digital transformation,” Asian Bus. Rev., vol. 11, no. 3, pp. 125–134, 2021.
77. A. Varghese, J. R. P. K. Ande, R. Mahadasa, S. S. Gutlapalli, and P. Surarapu, “Investigation of fault diagnosis and prognostics techniques for predictive maintenance in industrial machinery,” Eng. Int., vol. 11, no. 1, pp. 9–26, 2023.
78. B. Priyanka, Y. Rao, B. Bhavyasree, and B. Kavyasree, “Analysis Role of ML and Big Data Play in Driving Digital Marketing’s Paradigm Shift,” Journal of Survey in Fisheries Sciences, vol. 10, no. 3S, pp. 996–1006, 2023.
79. Y. Priyanka, B. Rao, B. Likhitha, and T. Malavika, “Leadership Transition In Different Eras Of Marketing From 1950 Onwards,” Korea Review Of International Studies, vol. 16, no. 13, pp. 126–135, 2023.
80. T. N. Srinivasarao and N. G. Reddy, “Small and Medium Sized Enterprises Key Performance Indicators,” IOSR Journal of Economics and Finance, vol. 11, no. 4, pp. 1–06, 2020.
81. B. Rashi, Y. S. Kumar Biswal, N. Rao, and D. Ramchandra, “An AI-Based Customer Relationship Management Framework for Business Applications,” Intelligent Systems and Applications In Engineering, vol. 12, pp. 686–695, 2024.
82. A. Charmchian Langroudi, M. Charmchian Langroudi, F. Arasli, and I. Rahman, “Challenges and strategies for knowledge transfer in multinational corporations: The case of hotel ‘Maria the great,’” Journal of Hospitality & Tourism Cases, 2024.
83. S. A. Haider et al., “Energy-Efficient Self-Supervised Technique to Identify Abnormal User over 5G Network for E-Commerce,” IEEE Transactions on Consumer Electronics, vol. 2024, pp. 1–1.
84. V. Chunduri, A. Kumar, A. Joshi, S. R. Jena, A. Jumaev, and S. More, “Optimizing energy and latency trade-offs in mobile ultra-dense IoT networks within futuristic smart vertical networks,” Int. J. Data Sci. Anal., 2023.
85. Sudheesh et al., “Bidirectional encoder representations from transformers and deep learning model for analyzing smartphone-related tweets,” PeerJ Comput. Sci., vol. 9, no. e1432, p. e1432, 2023.
86. Sudheesh et al., “Analyzing sentiments regarding ChatGPT using novel BERT: A machine learning approach,” Information (Basel), vol. 14, no. 9, p. 474, 2023.
87. Poulami, Sarkar & Sharma, Kuldeep (2021). A Study on the Persistent issues of the Tourism Sector Faced by the Indian Tourists. Journal of Decision Making and Leadership (1), (1), pp.29-36.

88. Kakkad, Poonam, Sharma, Kuldeep & Bhamare, Ajay (2021). An Empirical Study on Employer Branding To Attract And Retain Future Talents. Turkish Online Journal of Qualitative Inquiry, 2021, Vol 12(6), pp.7615
89. Nayak, K. M., & Sharma, K. (2019). Measuring Innovative Banking User's Satisfaction Scale. Test Engineering and Management Journal, 81(2019), pp.4466-4477.
90. Farheen, Makrani & Kuldeep, Sharma (2023). A Study on Customer Satisfaction towards traditional Taxis in South Mumbai. Electronic International Interdisciplinary Research Journal, 12 I(a), pp.15-28. https://zenodo.org/records/7653292#.Y_ENSHZBzIU
91. Vora, K., Sharma Kuldeep & Kakkad, Poonam (2020). Factors Responsible for Poor Attendance of Students in Higher Education with respect to Undergraduate - Commerce Colleges in Mumbai. BVIMSR's Journal of Management Research, 12 (1), 2020, pp.1-9.
92. Sharma, Kuldeep & Poddar, Sandeep (2018). An Empirical Study on Service Quality at Mumbai Metro-One Corridor. Journal of Management Research and Analysis (JMRA), 5(3), 2018, pp.237-241.
93. Sharma, Kuldeep (2015). Travel Demand for Air-conditioner buses in Kalyan-Dombivali Region. Tactful Management Research Journal, 9 (2015), pp.44-50. http://oldtm.lbp.world/MumbaiSeminars.aspx?ID=9
94. Vora, K. & Sharma Kuldeep (2018). Factors Influencing Participation of Female Students in Higher Education w.r.t Commerce Colleges in Mumbai. International Journal of Advance and Innovative Research, 5, 3 (VI), pp.127-130.
95. E. Geo Francis and S. Sheeja, "An optimized intrusion detection model for wireless sensor networks based on MLP-CatBoost algorithm," Multimedia Tools and Applications, 2024.
96. E. Geo Francis and S. Sheeja, "SHAKE-ESDRL-based energy efficient intrusion detection and hashing system," Annals of Telecommunications, 2023,
97. E. Geo Francis and S. Sheeja, "Intrusion detection system and mitigation of threats in IoT networks using AI techniques: A review," Engineering and Applied Science Research, 2023, vol. 50, no. 6, pp. 633–645,
98. E. Geo Francis and S. Sheeja, "A Novel RDAE Based PSR-QKD Framework for Energy Efficient Intrusion Detection," 2022 International Conference on Knowledge Engineering and Communication Systems (ICKES), Chickballapur, India, 2022, pp. 1-6.
99. E. Geo Francis and S. Sheeja, "Towards an Optimal Security Using Multifactor Scalable Lightweight Cryptography for IoT," 2022 3rd International Conference on Communication, Computing and Industry 4.0 (C2I4), Bangalore, India, 2022, pp. 1-6.
100. E. Geo Francis, S. Sheeja and Joseph Jismy, "A Three-layer Convolution Neural Network Approach for Intrusion Detection in IoT," 2023 Eleventh International Conference on Intelligent Computing and Information Systems (ICICIS), Cairo, Egypt, 2023, pp. 261-268.
101. E. Geo Francis, S. Sheeja and E. F. Antony John, "IoT Intrusion Detection Using Two-Tier-Convolutional Deep-Learning Model," 2023 International Conference on IoT, Communication and Automation Technology (ICICAT), Gorakhpur, India, 2023, pp. 1-7.
102. D. K. Sharma and R. Tripathi, "4 Intuitionistic fuzzy trigonometric distance and similarity measure and their properties," in Soft Computing, De Gruyter, 2020, pp. 53–66.
103. D. K. Sharma, B. Singh, M. Anam, R. Regin, D. Athikesavan, and M. Kalyan Chakravarthi, "Applications of two separate methods to deal with a small dataset and a high risk of generalization," in 2021 2nd International Conference on Smart Electronics and Communication (ICOSEC), 2021.

104. D. K. Sharma, B. Singh, M. Anam, K. O. Villalba-Condori, A. K. Gupta, and G. K. Ali, "Slotting learning rate in deep neural networks to build stronger models," in 2021 2nd International Conference on Smart Electronics and Communication (ICOSEC), 2021.
105. K. Kaliyaperumal, A. Rahim, D. K. Sharma, R. Regin, S. Vashisht, and K. Phasinam, "Rainfall prediction using deep mining strategy for detection," in 2021 2nd International Conference on Smart Electronics and Communication (ICOSEC), 2021.
106. I. Nallathambi, R. Ramar, D. A. Pustokhin, I. V. Pustokhina, D. K. Sharma, and S. Sengan, "Prediction of influencing atmospheric conditions for explosion Avoidance in fireworks manufacturing Industry-A network approach," Environ. Pollut., vol. 304, no. 119182, p. 119182, 2022.
107. H. Sharma and D. K. Sharma, "A Study of Trend Growth Rate of Confirmed Cases, Death Cases and Recovery Cases of Covid-19 in Union Territories of India," Turkish Journal of Computer and Mathematics Education, vol. 13, no. 2, pp. 569–582, 2022.
108. A. L. Karn et al., "Designing a Deep Learning-based financial decision support system for fintech to support corporate customer's credit extension," Malays. J. Comput. Sci., pp. 116–131, 2022.
109. A. L. Karn et al., "B-lstm-Nb based composite sequence Learning model for detecting fraudulent financial activities," Malays. J. Comput. Sci., pp. 30–49, 2022.
110. P. P. Dwivedi and D. K. Sharma, "Application of Shannon entropy and CoCoSo methods in selection of the most appropriate engineering sustainability components," Cleaner Materials, vol. 5, no. 100118, p. 100118, 2022.
111. A. Kumar, S. Singh, K. Srivastava, A. Sharma, and D. K. Sharma, "Performance and stability enhancement of mixed dimensional bilayer inverted perovskite (BA2PbI4/MAPbI3) solar cell using drift-diffusion model," Sustain. Chem. Pharm., vol. 29, no. 100807, p. 100807, 2022.
112. A. Kumar, S. Singh, M. K. A. Mohammed, and D. K. Sharma, "Accelerated innovation in developing high-performance metal halide perovskite solar cell using machine learning," Int. J. Mod. Phys. B, vol. 37, no. 07, 2023.
113. A. R. B. M. Saleh, S. Venkatasubramanian, N. R. R. Paul, F. I. Maulana, F. Effendy, and D. K. Sharma, "Real-time monitoring system in IoT for achieving sustainability in the agricultural field," in 2022 International Conference on Edge Computing and Applications (ICECAA), 2022.
114. B. Senapati, R. Regin, S. S. Rajest, P. Paramasivan, and A. J. Obaid, "Quantum Dot Solar Cells and Their Role in Revolutionizing Electrical Energy Conversion Efficiency," FMDB Transactions on Sustainable Energy Sequence, vol. 1, no. 1, pp. 49–59, 2023.
115. C. Goswami, A. Das, K. I. Ogaili, V. K. Verma, V. Singh, and D. K. Sharma, "Device to device communication in 5G network using device-centric resource allocation algorithm," in 2022 4th International Conference on Inventive Research in Computing Applications (ICIRCA), 2022.
116. G. A. Ogunmola, M. E. Lourens, A. Chaudhary, V. Tripathi, F. Effendy, and D. K. Sharma, "A holistic and state of the art of understanding the linkages of smart-city healthcare technologies," in 2022 3rd International Conference on Smart Electronics and Communication (ICOSEC), 2022.
117. J. A. Jeba, S. R. Bose, R. Regin, S. S. Rajest, and U. Kose, "In-Depth Analysis and Implementation of Advanced Information Gathering Tools for Cybersecurity Enhancement," FMDB Transactions on Sustainable Computer Letters., vol. 1, no. 2, pp. 130 –146, 2023.

118. J. Angelin Jeba, S. Rubin Bose, R. Regin, M.B. Sudhan, S. Suman Rajest and P. Ramesh Babu "Efficient Real-time Tamil Character Recognition via Deep Vision Architecture," AVE Trends In Intelligent Computing Systems, vol. 1, no. 1, pp. 1 –16, 2024.
119. K. D. Jasper, M.N. Jaishnav, M. F. Chowdhury, R. Badhan and R. Sivakani "Defend and Secure: A Strategic and Implementation Framework for Robust Data Breach Prevention," AVE Trends In Intelligent Computing Systems, vol. 1, no. 1, pp. 17 –31, 2024.
120. K. Daniel Jasper, A. S. Vignesh Raja, R. Neha, S. Suman Rajest, R. Regin, B. Senapati, "Secure Identity: A Comprehensive Approach to Identity and Access Management," FMDB Transactions on Sustainable Computing Systems., vol. 1, no. 4, pp. 171–189, 2023.
121. M. Al-Mokdad, "China and Qatar's Partnership in Future Energies and its Impact on Middle Eastern Geopolitics," AVE Trends In Intelligent Technoprise Letters, vol. 1, no. 1, pp. 50–59, 2024.
122. M. Usman and A. Ullah, "Blockchain Technology Implementation in Libraries: An Overview of Potential Benefits and Challenges," AVE Trends In Intelligent Computing Systems, vol. 1, no. 1, pp. 42 –53, 2024.
123. M. Yuvarasu, A. Balaram, S. Chandramohan, and D. K. Sharma, "A Performance Analysis of an Enhanced Graded Precision Localization Algorithm for Wireless Sensor Networks," Cybernetics and Systems, pp. 1–16, 2023.
124. P. Jani, D. Nanban, J. Selvan, N. Richardson, R. Sivakani, and R. Subhashni, "Studying Price Dynamics of Bus Services Using Machine Learning Algorithms," AVE Trends In Intelligent Computing Systems, vol. 1, no. 1, pp. 54 –65, 2024.
125. P. P. Anand, G. Jayanth, K. S. Rao, P. Deepika, M. Faisal, and M. Mokdad "Utilising Hybrid Machine Learning to Identify Anomalous Multivariate Time-Series in Geotechnical Engineering," AVE Trends In Intelligent Computing Systems, vol. 1, no. 1, pp. 32-41, 2024.
126. P. P. Dwivedi and D. K. Sharma, "Assessment of Appropriate Renewable Energy Resources for India using Entropy and WASPAS Techniques," Renewable Energy Research and Applications, vol. 5, no. 1, pp. 51–61, 2024.
127. P. P. Dwivedi and D. K. Sharma, "Evaluation and ranking of battery electric vehicles by Shannon's entropy and TOPSIS methods," Math. Comput. Simul., vol. 212, pp. 457–474, 2023.
128. P. P. Dwivedi and D. K. Sharma, "Selection of combat aircraft by using Shannon entropy and VIKOR method," Def. Sci. J., vol. 73, no. 4, pp. 411–419, 2023.
129. P. Sindhuja, A. Kousalya, N. R. R. Paul, B. Pant, P. Kumar, and D. K. Sharma, "A Novel Technique for Ensembled Learning based on Convolution Neural Network," in 2022 International Conference on Edge Computing and Applications (ICECAA), IEEE, 2022, pp. 1087–1091.
130. P.P. Anand, U. K. Kanike, P. Paramasivan, S. S. Rajest, R. Regin, S. S. Priscila, "Embracing Industry 5.0: Pioneering Next-Generation Technology for a Flourishing Human Experience and Societal Advancement," FMDB Transactions on Sustainable Social Sciences Letters, vol. 1, no. 1, pp. 43–55, 2023.
131. P.S. Venkateswaran, S. Singh, P. Paramasivan, S. S. Rajest, M. E. Lourens, R. Regin, "A Study on The Influence of Quality of Service on Customer Satisfaction Towards Hotel Industry," FMDB Transactions on Sustainable Social Sciences Letters, vol. 1, no. 1, pp. 1–11, 2023.

132. R S Gaayathri, S. S. Rajest, V. K. Nomula, R. Regin, “Bud-D: Enabling Bidirectional Communication with ChatGPT by adding Listening and Speaking Capabilities,” FMDB Transactions on Sustainable Computer Letters., vol. 1, no. 1, pp. 49–63, 2023.
133. R. Bai, C.S. Robinson, and S. Suman Rajest, “Technology in Task-Based English Sentence Structure Teaching with Law Students: An Experimental Study,” FMDB Transactions on Sustainable Techno Learning., vol. 1, no. 4, pp. 189 –199, 2023.
134. S. S. Priscila, S.S. Rajest, S. N. Tadiboina, R. Regin and S. András, “Analysis of Machine Learning and Deep Learning Methods for Superstore Sales Prediction,” FMDB Transactions on Sustainable Computer Letters., vol. 1, no. 1, pp. 1–11, 2023.
135. S. Sajini, L. T. Reddi, R. Regin, S. S. Rajest, “A Comparative Analysis of Routing Protocols for Efficient Data Transmission in Vehicular Ad Hoc Networks (VANETs),” FMDB Transactions on Sustainable Computing Systems., vol. 1, no. 1, pp. 1–10, 2023.
136. S. Silvia Priscila, E. Shalom Soji, N. Hossó, P. Paramasivan, and S. Suman Rajest, “Digital Realms and Mental Health: Examining the Influence of Online Learning Systems on Students,” FMDB Transactions on Sustainable Techno Learning., vol. 1, no. 3, pp. 156 –164, 2023.
137. Srinivasa, D. Baliga, N. Devi, D. Verma, P. P. Selvam, and D. K. Sharma, “Identifying lung nodules on MRR connected feature streams for tumor segmentation,” in 2022 4th International Conference on Inventive Research in Computing Applications (ICIRCA), 2022.