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Smart Career Counselor Using ML Based on Recommendation System

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ABSTRACT: In the modern era of diverse career opportunities, selecting the right professional path has become a critical and often challenging task for students and job seekers. The Smart Career Counselor project aims to develop an intelligent recommendation system that assists users in identifying suitable career options based on their academic background, skills, interests, and personality traits. The proposed system leverages machine learning algorithms such as classification and clustering to analyze user profiles and generate personalized career recommendations. Natural Language Processing (NLP) techniques are integrated to process user inputs and extract relevant insights for better decision-making. The system also incorporates a feedback mechanism to continuously improve the accuracy of predictions and recommendations through adaptive learning. This project not only provides tailored career guidance but also suggests relevant online courses, certifications, and potential growth paths aligned with the user's goals. The Smart Career Counselor ultimately bridges the gap between an individual's capabilities and the dynamic job market, empowering users to make data-driven, confident, and informed career choices.

KEYWORDS: Smart Career Counselor, Career Recommendation System, Machine Learning (ML), Classification Algorithms, Clustering Algorithms, Natural Language Processing (NLP).

I. INTRODUCTION

1. In today's rapidly evolving world, the career landscape has expanded significantly due to technological advancements, globalization, and the emergence of new industries.
2. Students and job seekers are presented with numerous career opportunities across diverse domains, making the decision-making process increasingly complex.
3. Traditional career guidance methods often rely on generalized advice, limited counseling resources, or manual assessment techniques, which may not effectively address individual strengths, interests, and personality traits.
4. As a result, many individuals face confusion, uncertainty, and mismatched career choices.
5. To overcome these challenges, the **Smart Career Counselor** project proposes an intelligent, data-driven career recommendation system powered by Machine Learning and Natural Language Processing (NLP).
6. The system is designed to analyze a user's academic background, skill set, interests, and personality characteristics to generate personalized career suggestions. By utilizing classification and clustering algorithms, the model identifies patterns within user data and maps them to suitable professional paths.
7. Furthermore, the system integrates NLP techniques to understand user inputs more effectively and extract meaningful insights for accurate recommendations.
8. A feedback mechanism is incorporated to continuously improve system performance through adaptive learning.
9. In addition to recommending career paths, the platform also suggests relevant online courses, certifications, and potential growth opportunities aligned with industry trends.
10. The Smart Career Counselor aims to bridge the gap between individual capabilities and the dynamic job market by providing reliable, scalable, and personalized career guidance.

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11. Through intelligent automation and data-driven insights, the system supports users in making confident, informed, and strategic career decisions.

II. LITERATURE REVIEW

Trujillo et al., AI in education and career prediction — systematic review of ML models and evaluation metrics in career guidance.
jotse.org
Panthee et al., Career guidance via personality prediction and ML — integrating Big Five personality with recommendation systems.
Nepal Journals Online
D.S. Monika & Balaji, AI-based chatbots for personalised career guidance — combining NLP with ML models for user interaction.
ijarcst.org
Baraskar et al., Hybrid AI Models for Intelligent Career Counselling — show how combining ML and ARM can improve interpretability.
MAT Journals
CareerCraft & Smart Career Advisor systems — applied frameworks of ML algorithms for real-time recommendations.

III. RESEARCH METHODOLOGY

A lot of students get stuck when it's time to pick a career. Traditional counseling takes forever and rarely feels personal. So, here's the core challenge: How do we build a smart system that predicts the right career for each student, just by looking at their data with the help of Machine Learning?

Data Collection
We gathered a bunch of info, like:

- Academic performance (marks, CGPA)
- Skills (both technical and non-technical)
- Interests
- Personality traits (Big Five, if students wanted to share)
- Career preferences

We pulled this data from online surveys, public datasets, and student questionnaires. Everything landed in CSV files—nothing fancy, just something easy to work with.
Data Preprocessing

Before we jumped into any machine learning, we had to clean up the data:

- Tossed out anything missing or duplicate
- Turned categories into numbers (using Label or One-Hot Encoding)
- Normalized the numbers so they were all on the same scale
- Split the data: 80% for training, 20% for testing

This whole process really boosts how accurate and reliable the model becomes. Feature Selection
We zeroed in on the features that actually matter—academic scores, skills, interests, and personality traits. Focusing on these helps the predictions stay sharp and keeps the data manageable.

Model Selection
We didn't just pick the first algorithm we saw. We tried out a few: Decision Tree, Random Forest, SVM, and KNN. Random Forest came out on top because it handles big datasets, avoids overfitting, and just plain delivers better accuracy.

Model Training
We trained Random Forest with our training data, letting it learn the connections between student profiles and good-fit careers. Then, we threw some new data at it to see how well it could make predictions.

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Model Evaluation

We measured performance using accuracy, precision, recall, and F1-score. The model that hit the highest accuracy and stayed balanced across the board? That's the one we chose to deploy.

3.1 Performance Metrics Comparision:

Model	Accuracy (%)	Precision (%)	Recall (%)	F1-Score (%)
Decision Tree	99.9	99.9	99.9	99.9
Gradient Boosting	99.9	99.9	99.9	99.9
Random Forest	93.7	90.23	93.73	91.70
Naïve Bayes	90.51	90.59	90.51	90.50
Logistic Regression	86.43	86.33	86.43	86.31

3.2 Comparative Performance Analysis:

Model	**Training Time (s)**	**Prediction Time (s)**	**Total Time (s)**	**Rating**
Naïve Bayes	0.0074	0.0021	0.0095	Very Fast
Decision Tree	0.0243	0.0019	0.0262	Very Fast
Random Forest	0.1092	0.1171	0.1171	Fast
Logistic Regression	0.6132	0.6143	0.6143	Fast
Gradient Boosting	4.6874	4.7059	4.7059	Slow

3.3 Backend Development

The Smart Career Prediction system keeps things simple and easy to use. Right from the start, you get a clean interface where you can sign up or log in without any hassle. The homepage lays out what the platform's all about, no confusion. When it's time to enter your info—like academic background, skills, interests, or whatever else matters—you fill out straightforward forms. There are dropdowns and quick selection options, so you're not stuck typing everything out. Once you send in your details, the system shows you your predicted career paths, and it doesn't just dump a list of jobs. The results actually look good—clear visuals, charts, and neat graphics help you see where your strengths are and what careers fit you. There's even a dashboard where you can check your old predictions and recommendations, which is pretty handy if you want to track how things change. Plus, the whole design adapts well—whether you're on a phone or a laptop, it just works. In the end, the frontend is all about keeping things simple and making sure you have a smooth ride from start to finish.

3.4 Frontend Development

The backend of the Smart Career Prediction system handles all the main processing and logic of the application. It securely stores user information such as academic details, skills, and interests in a database. When a user submits their data, the backend sends it to the machine learning model for analysis. The ML model processes the input and predicts the most suitable career options. The backend also manages user authentication, including registration and login verification. It ensures data privacy and protects sensitive user information. APIs are used to connect the frontend and backend smoothly. The system handles multiple user requests efficiently without slowing down. It also stores prediction history for future reference. Overall, the backend ensures accuracy, security, and smooth functioning of the entire system.

3.5 Integration of Frontend and Backend

Building the Smart Career Prediction system turned into a back-and-forth between the frontend and backend teams. We kicked things off with a simple interface—just enough to grab user info like skills, interests, and what they've studied. Once that was working, we focused on the backend, hooking it up to a machine learning model that could actually make predictions with all that data. We ran some tests to make sure the frontend and backend could talk to each other without a hitch, then tweaked the APIs when things got stuck. People tried out the system and gave us feedback, so we went back and made the interface cleaner and easier to use. Meanwhile, we sharpened the backend—tuned the logic, sped up the results, and made the predictions more accurate. Every round, we found bugs and squashed them. We polished up the

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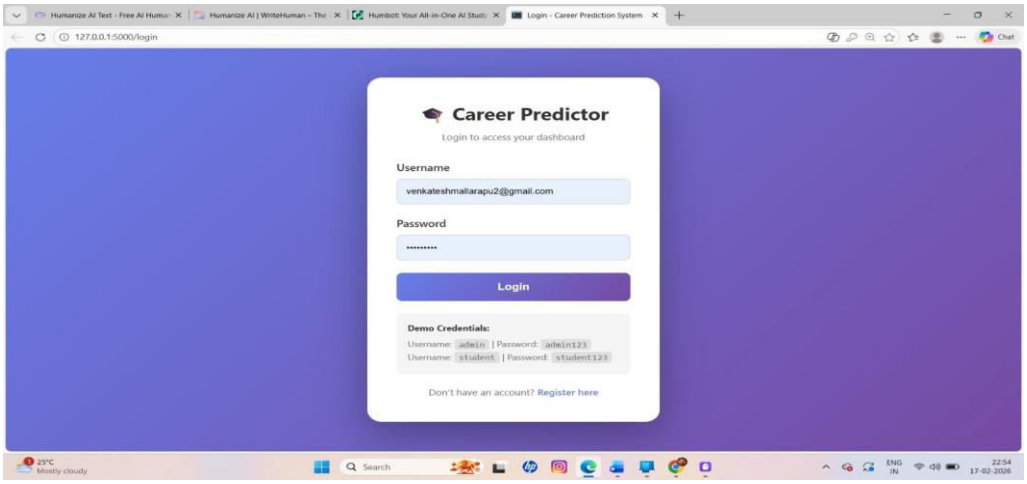
dashboard and results so users could see exactly what the system predicted for them. Security wasn't an afterthought, either. We added authentication and double-checked that it worked. This constant loop of building, testing, In the end, users got a faster, clearer, and more reliable experience.

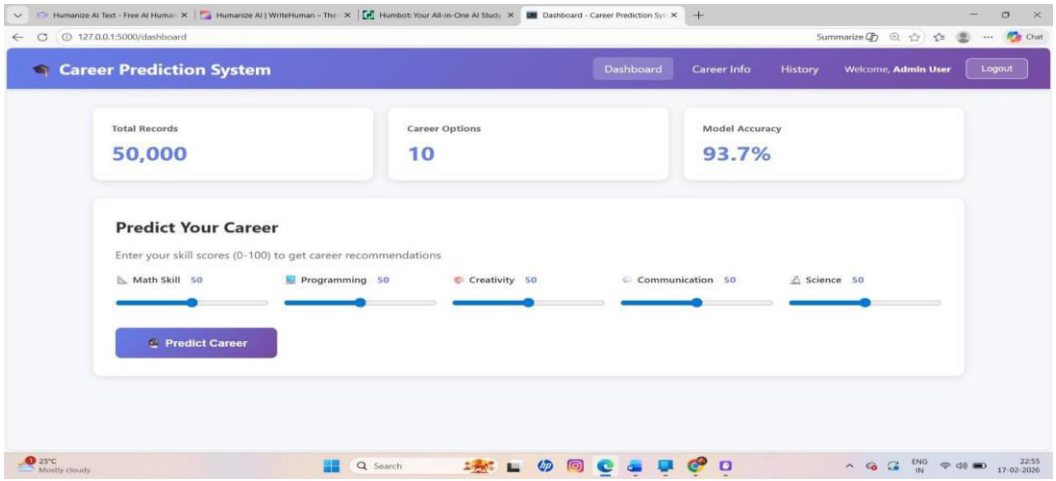
IV. RESULT ANALYSIS EXPERIMENTAL SETUP

The login page is the entry point of the Smart Career Prediction system. It allows registered users to securely access their accounts. The page contains input fields for email or username and password. A clear and simple design makes it easy for users to understand. There is a "Login" button to submit the details. If the user enters incorrect information, an error message is displayed. The page also includes a "Forgot Password" option for password recovery. New users can click on the "Register" link to create a new account. Basic validation is applied to check empty fields before submission.



Overall, the login page ensures secure and smooth access to the platform.

4.1 System Dashboard Interface:



The dashboard is the main page users see after logging into the Smart Career Prediction system. It gives a clear overview of the user's profile and career prediction results. The predicted career options are displayed in a simple and easy-to-read format. Visual elements like charts or progress bars help users understand their strengths. The dashboard also shows recommended courses and skill improvement suggestions. Users can view their previous prediction history in one place. There is a section for updating personal details and interests. Navigation menus make it easy to move between different features. Important notifications and updates are also displayed on the dashboard. Overall, the dashboard provides a complete and organized view of the user's career guidance journey

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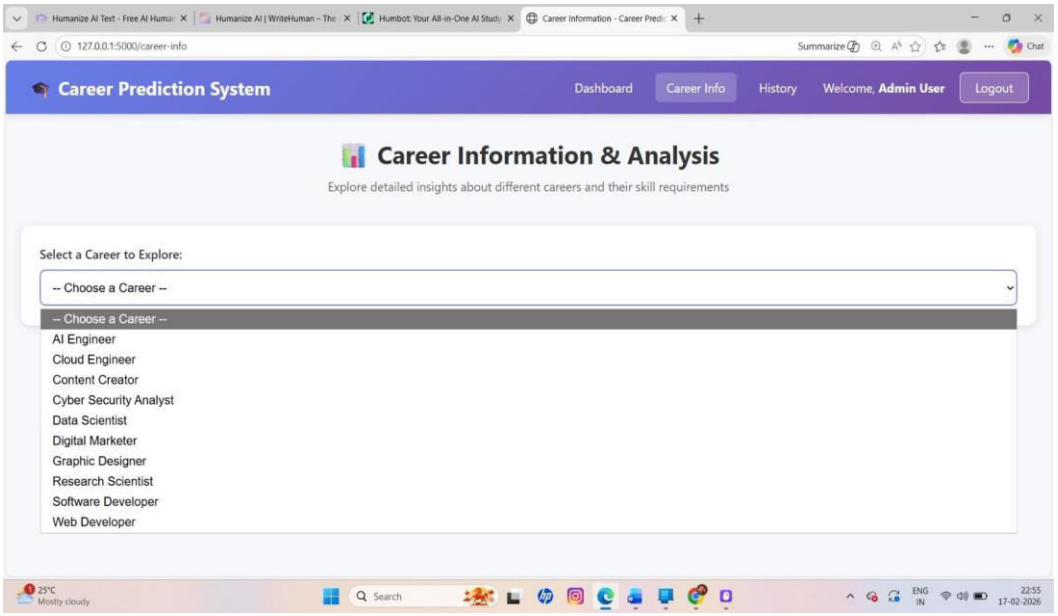
4.2 Career Prediction System interface



1. Technical Environment & Frameworks The screenshot gives away quite a bit about how this app works behind the scenes.
2. Right away, the URL—127.0.0.1:5000—tells me it's running on a developer's machine, not out in the wild. That port number? Classic Flask setup. So yeah, this is almost definitely a Python web app.
3. Then there's the greeting: "Welcome, Admin User." That screams Role-Based Access Control. Admins probably get extra powers, like adding new career options or peeking at user history, while regular users just get the basics. Take a look at the design, too. The smooth corners and those button styles aren't random—they look like something you'd see with Bootstrap or Tailwind CSS. Someone's using a frontend framework to keep things looking sharp.
4. 2. User Interface (UI) Breakdown The page sticks to a card layout, pulling your focus to one task at a time.
5. Up top, the navigation bar tells you exactly where you are. The "Career Info" button glows a little brighter with that lighter purple—standard move to show which section you're in. And check out the graduation cap icon next to "Career Prediction System." It's a nice touch, really nails the education vibe.
6. The dropdown menu? Right now, you get ten career paths to pick from—think tech heavyweights like AI, Cloud, Cyber Security, and a few creative roles thrown in. Feels pretty tailored to the IT crowd, which lines up with all those "Humanize AI" tabs open in the browser.
7. When you first land, the dropdown just says "— Choose a Career —." Nothing's loaded yet, so the page stays clean and doesn't overwhelm you with info until you actually pick something.
8. 3. Contextual Clues from the OS Now, if you zoom out a little, the desktop itself tells its own story. Those open browser tabs—Humanize AI Text, WriteHuman, Humbot—make it obvious the user is diving into AI tools, maybe even building their own. Look at the taskbar: Visual Studio Code,
Google Chrome, Microsoft Edge.
9. That's the holy trinity for web devs these days. It's late—10:55 PM. Clearly, some after-hours coding happening here. The weather says 25°C and mostly cloudy, and the "IN" icon hints the system's set to India.
10. 4. Data Model Implication Digging into the backend, the "History" tab and "Career Info" dropdown tell me a lot. There's almost definitely a relational database behind this—maybe SQLite or PostgreSQL. One table for users, with roles and credentials. Another for careers, storing names, descriptions, and all the necessary skills. Then you've got a predictions table, logging which careers the system recommended to which users—that's what you see when you click "History."

V. CONCLUSION

In conclusion, the Smart Career Prediction system is designed to help students and job seekers make better career decisions.
Choosing the right career is often confusing and stressful for many people.
This system reduces that confusion by analyzing skills, interests, and academic performance. It uses machine learning

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techniques to generate accurate and personalized career suggestions. The frontend of the system is simple, attractive, and easy to use.

Users can easily register, log in, and enter their details without difficulty.

The dashboard clearly displays predicted careers and recommended courses. Visual elements like charts help users understand their strengths better.

The backend processes user data securely and efficiently.

It ensures that personal information is protected and stored safely. APIs connect the frontend and backend smoothly for fast performance. The system also saves prediction history for future reference.

Continuous testing and iteration improved the overall accuracy of the model. User feedback was considered to enhance the interface and features.

The project demonstrates the practical use of AI in real-life career guidance. It shows how technology can support students in planning their future.

This platform can be expanded by adding more datasets and career options. It can also integrate real-time job market trends for better predictions.

With further development, it can become a powerful career counseling tool.

Overall, the Smart Career Prediction system is an innovative and helpful solution for modern career planning.

REFERENCES

1. Sugumar, R. (2025). Unified AI framework for predictive data engineering and real time prescription and billing systems. *International Journal of Advanced Engineering Science and Information Technology (IJAESIT), 8*(5), 17261.
2. Ananth, S., Radha, D. K., Prema, D. S., & Nirajan, K. (2019). Fake news detection using convolution neural network in deep learning. *International Journal of Innovative Research in Computer and Communication Engineering, 7*(1), 49–63.
3. Kiran, A., Rubini, P., & Kumar, S. S. (2025). Comprehensive review of privacy, utility and fairness offered by synthetic data. *IEEE Access*.
4. Mathew, A., & Alex, H. (2025). Federated learning for secure genomic research: Privacy-preserving AI solutions for precision medicine. *Science and Technology: Developments and Applications, 9*, 36–43.
5. Lakshmi, A. J., Dasari, R., Chilukuri, M., Tirumani, Y., Praveena, H. D., & Kumar, A. P. (2023, May). Design and implementation of a smart electric fence built on solar with an automatic irrigation system. In *2023 2nd International Conference on Applied Artificial Intelligence and Computing (ICAAIC)* (pp. 1553–1558). IEEE.
6. Gopinathan, V. R. (2025). Enterprise AI frameworks for financial data engineering behavioural analytics and intelligent cloud solutions. *International Journal of Research Publications in Engineering, Technology and Management (IJRPETM), 8*(4), 12499–12506.
7. Poornima, G., & Anand, L. (2025). Medical image fusion model using CT and MRI images based on dual scale weighted fusion based residual attention network with encoder–decoder architecture. *Biomedical Signal Processing and Control, 108*, 107932.
8. Saravanan, M., & Sivakumaran, T. S. (2016). Three phase dual input direct matrix converter for integration of two AC sources from wind turbines. *Circuits and Systems, 7*, 3807–3817.
9. Varshini, M., Chandrapathi, M., Manirekha, G., Balaraju, M., Afraz, M., Sarvanan, M., & Dharnasi, P. (2026). ATM access using card scanner and face recognition with AIML. *International Journal of Research Publications in Engineering, Technology and Management (IJRPETM), 9*(1), 113–118.
10. Feroz, A., Pranay, D., Srikar Sai Raj, B., Harsha Vardhan, C., Rohith Raja, B., Nirmala, B., & Dharnasi, P. (2026). Blockchain and machine learning combined secured voting system. *International Journal of Research Publications in Engineering, Technology and Management (IJRPETM), 9*(1), 119–124.
11. Prasanna, D., & Manishvarma, R. (2025, February). Skin cancer detection using image classification in deep learning. In *2025 3rd International Conference on Integrated Circuits and Communication Systems (ICICACS)* (pp. 1–8). IEEE.
12. Amitha, K., Ram Manohar Reddy, M., Yashwanth, K., Shylaja, K., Rahul Reddy, M., Srinu, B., & Dharnasi, P. (2026). AI empowered security monitoring system with the help of deployed ML models. *International Journal of Computer Technology and Electronics Communication (IJCTEC), 9*(1), 69–73.
13. Soundappan, S. J. (2025). Next generation AI enabled holistic cognitive platform for secure cloud network intelligence enterprise systems and digital trust optimization. *International Journal of Computer Technology and Electronics Communication, 8*(5), 11534–11542.
14. Sammy, F., Chettier, T., Boyina, V., Shingne, H., Saluja, K., Mali, M., ... & Shobana, A. (2025). Deep learning-driven visual analytics framework for next-generation environmental monitoring. *Journal of Applied Science and Technology Trends*, 114–122.

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DOI:10.15662/IJEETR.2026.0802339

15. Gogada, S., Gopichand, K., Reddy, K. C., Keerthana, G., Nithish Kumar, M., Shivalingam, N., & Dharnasi, P. (2026). Cloud computing/deep learning customer churn prediction for SaaS platforms. *International Journal of Computer Technology and Electronics Communication (IJCTEC), 9*(1), 74–78.
16. Sakthivel, T. S., Ragupathy, P., & Chinnadurai, N. (2025). Solar system integrated smart grid utilizing hybrid coot-genetic algorithm optimized ANN controller. *Iranian Journal of Science and Technology, Transactions of Electrical Engineering*, 1–24.
17. Mathew, A., Jackson, E., & Tobesman, A. (2025). Agentic AI: A game-changer in cybersecurity defense. *Science and Technology: Developments and Applications, 7*, 112–120.
18. Prasanna, D., Ahamed, N. A., Abinesh, S., Karthikeyan, G., & Inbatamilan, R. (2024, November). Cloud-based automatically human document authentication processes for secured system. In *2024 International Conference on Integrated Intelligence and Communication Systems (ICIICS)* (pp. 1–7). IEEE.
19. Saravanan, M., Kumar, A. S., Devasaran, R., Seshadri, G., & Sivaganesan, S. (2019). Performance analysis of very sparse matrix converter using indirect space vector modulation. *International Journal of Innovative Technology and Exploring Engineering, 9*(1), 4756–4762.
20. Madheswaran, M., Dhanalakshmi, R., Ramasubramanian, G., Aghalya, S., Raju, S., & Thirumaraiselvan, P. (2024, April). Advancements in immunization management for personalized vaccine scheduling with IoT and machine learning. In *2024 10th International Conference on Communication and Signal Processing (ICCSP)* (pp. 1566–1570). IEEE.
21. Dharnasi, P. (2025). A multi-domain AI framework for enterprise agility integrating retail analytics with SAP modernization and secure financial intelligence. *International Journal of Humanities and Information Technology, 7*(4), 61–66.
22. Inbavalli, M., & Arasu, T. (2015). Efficient analysis of frequent item set association rule mining methods. *International Journal of Scientific & Engineering Research, 6*(4).
23. Aashiq Banu, S., Sucharita, M. S., Soundarya, Y. L., Nithya, L., Dhivya, R., & Rengarajan, A. (2020). Robust image encryption in transform domain using duo chaotic maps—A secure communication. In *Evolutionary Computing and Mobile Sustainable Networks* (pp. 271–281). Springer.
24. Mathew, A., Jackson, E., & Tobesman, A. (2025). Evaluating the efficacy of WPA3 against advanced attacks: A comparative analysis with WPA2 in real-world. *J Inform Techn Int, 3*(1), 105.
25. Karthikeyan, K., & Umasankar, P. (2025). A novel buck-boost modified series forward (BBMSF) converter for enhanced efficiency in hybrid renewable energy systems. *Ain Shams Engineering Journal, 16*(10), 103557.
26. Sugumar, R. (2025). Explainable AI-driven secure multi-modal analytics for financial fraud detection and cyber-enabled pharmaceutical network analysis. *International Journal of Advanced Research in Computer Science & Technology (IJARCST), 8*(6), 13239–13249.
27. Yashwanth, K., Adithya, N., Sivaraman, R., Janakiraman, S., & Rengarajan, A. (2021, July). Design and development of pipelined computational unit for high-speed processors. In *2021 12th International Conference on Computing Communication and Networking Technologies (ICCCNT)* (pp. 1–5). IEEE.
28. Mathew, A., & Fofang, T. S. I. AI-driven fraud detection: Leveraging machine learning for scam identification.
29. Poornachandar, T., Latha, A., Nisha, K., Revathi, K., & Sathishkumar, V. E. (2025, September). Cloud-based extreme learning machines for mining waste detoxification efficiency. In *2025 4th International Conference on Innovative Mechanisms for Industry Applications (ICIMIA)* (pp. 1348–1353). IEEE.
30. Karthikeyan, K., Umasankar, P., Parathraju, P., Prabha, M., & Pulivarthy, P. Integration and analysis of solar vertical axis wind hybrid energy system using modified zeta converter.
31. Gopinathan, V. R. (2025). Software engineering practices for AI-driven systems: From development to deployment (MLOps perspective). *International Journal of Science, Research and Technology, 8*(1), 13493–13500.
32. Dharnasi, P. (2026). AI Empowered Security Monitoring System with the Help of Deployed ML Models. International Journal of Computer Technology and Electronics Communication, 9(1), 69-73.
33. Saravanan, M. (2026). Generative AI–Enabled Decision Intelligence: An Integrated Analytics and Autonomous Systems Framework for Cybersecurity and Retail Enterprises. International Journal of Engineering & Extended Technologies Research (IJEETR), 8(1), 14-20.
34. Praveena, M., Saravanan, M., & Yerra, R. (2025, June). PSO MPPT based Control Framework for Photovoltaic Systems to enhance Power Quality. In 2025 5th International Conference on Intelligent Technologies (CONIT) (pp. 1-5). IEEE.
35. Palathingal, J. T., Tom, R., Babu, V. N., Chacko, S. E., Kumar, A. S., & Saravanan, M. (2020). Assessment of medication adherence in rural population with type 2 diabetes: study in a tertiary care hospital in south India. Int J Biomed Sci, 16(2), 21-9.

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DOI:10.15662/IJEETR.2026.0802339

36. David, A. (2020). Air pollution control monitoring & delivery rate escalated by efficient use of markov process in manet networks: to measure quality of service parameters. Test Engineering & Management, The Mattingley Publishing Co., Inc. ISSN, 0193-4120.
37. Saravanan, M., Kumar, A. S., Devasaran, R., Seshadri, G., & Sivaganesan, S. (2019). Performance analysis of very sparse matrix converter using indirect space vector modulation. Intern. Jou. of Inn. Techn. and Expl. Eng, 9(1), 4756-4762.
38. Saravanan, M., Sivaganesan, S., & Rajamani, V. Performance analysis of Very Sparse Matrix Converter fed Three Phase cage Induction Drive using Conventional Space Vector Modulation.
39. Prasad, E. D., Sahithi, B., Jyoshnavi, C., Swathi, D., Kumar, T. A., Dharnasi, P., & Saravanan, M. (2026). A Technology Driven-Solution for Food and Hunger Management. International Journal of Computer Technology and Electronics Communication, 9(2), 440-448.