Track-Me

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Abstract. This project aims to develop an SMS-based remote control system for mobile devices, addressing the limitations of existing internet-dependent solutions. The system will enable users to perform critical tasks such as retrieving contacts, locating their device, and changing sound profiles through SMS commands. By focusing on simplicity and accessibility, the proposed solution ensures that users can remain connected and in control of their devices, even when they lack internet connectivity or have limited access to advanced technology. The system will be designed with user security and privacy in mind, ensuring that only authorized users can trigger these actions.

Keywords. Enable remote access via SMS, Contact retrieval, Enhance security, user friendly interaction.

1 INTRODUCTION

In today's digital age, mobile devices have become essential tools for personal and professional communication. However, situations arise where users may lose their phones or leave them behind, making it difficult to access critical information or control their device remotely. Existing solutions often rely on internet connectivity or advanced technology, which may not be available in every scenario. There is a pressing need for a reliable and straightforward solution that allows users to interact with their phones using basic SMS functionality. This solution should enable users to perform essential tasks such as retrieving contacts, locating the device, and changing sound profiles, ensuring they remain connected and in control, even without access to the internet or advanced tools.

1.1 Objectives

Enable Remote Access via SMS: Provide users with the ability to control their phone through SMS, regardless of internet connectivity.

Simplify Retrieval of Contacts: Allow users to retrieve important contact numbers by sending an SMS command.

Enhance Phone Security: Offer features like remote locking to enhance the security of lost or unattended devices.

Ensure User-Friendly Interaction: Design the app to be intuitive, allowing users of all technical levels to utilize its features effectively.

Operate Independently of Internet: Ensure that all functionalities of the app work purely through SMS, making it reliable in all network conditions.

2 LITERATURE SURVEY

Current methods focus on leveraging SMS and GSM technology for remote control and automation purposes. However, the major limitation across current applications is their reliance on GSM network coverage, which may limit functionality in areas with weak signals. Additionally, these systems may struggle to scale or adapt to more complex tasks without further development, and the use of SMS introduces potential delays that could impact real-time performance., they suffer from several limitations:

2.1 Limited Scope

The project is designed to control simple appliances and may not scale easily to more complex automation needs without additional development.

2.2 Scalability

The system is primarily designed for small setups (like a few home appliances), and scaling it to a larger system may require significant changes in the hardware and software

2.3 Energy Efficiency

While SMS is energy-efficient, the system's reliance on GSM networks may limit its efficiency in handling multiple devices and complex operations.

Limited Functionality Without Internet While the application can function without an internet connection, certain features like geocoding (translating between street addresses and coordinates) require internet access. This could limit the application's functionality in offline scenarios.

Existing projects are highly functional for basic home automation and location tracking tasks but are limited by their dependence on SMS technology, GSM network availability, and the need for more advanced features.

3 PLATFORM DEVELOPMENT

Journal	Paper Title	Author(s)	Limitations	Observations
IEEE (Institute of Electrical and Electronics Engineers)	Embedded system for home automation using SMS	Sougata Das, Rishabh Das, Nilava Debabhuti, Sayantan Dutta	The system is limited to controlling home appliances and does not cover broader mobile device functionalities.	Demonstrates the feasibility of using SMS for remote control but is limited to specific use cases like home appliances.
IJMSR (International Journal of MC Square Scientific Research)	SMS-based mobile remote control for an intelligent home	S.Amudha Mary, N.snehalatha	The system focuses primarily on security functions (locking and wiping) and does not include features like GPS tracking or contact retrieval.	Effective for improving mobile security through SMS-based commands but lacks comprehensive remote management features.

IJCST	Design and	N. Rupesh Babu,	The system is	Highlights the
(International Journal of Computer Science Trends and Technology)	implementation of an SMS based location tracking system	Dr. Y. K. Sundar Krishna	focused on tracking vehicles and may require significant adaptation for personal mobile devices.	potential of SMS for location tracking, with a primary focus on vehicle tracking that can be extended to mobiles.

3.1 Frontend

Built with HTML, CSS, JS, the frontend offers a responsive, dynamic user interface which allows for efficient updates about schedule messages, and view logs.

3.2 Node.js

The core platform for server-side development, offering fast and scalable backend operations. It efficiently handles asynchronous tasks, ideal for SMS communication and high-volume requests.

3.3 Express.js

A lightweight framework for Node.js, simplifying route handling and API development. It streamlines the creation of RESTful APIs, perfect for integrating SMS gateways.

3.4 Database

A NoSQL database used to store user information, SMS logs, and transaction history. MongoDB is known for its scalability and flexibility, making it a good fit for applications that handle a large volume of data and need quick access times.

4 SYSTEM DESIGN

SMSListener: Listens for incoming SMS messages. When an SMS is received, it checks the format and processes commands.

Command Processor: Once the SMSListener detects a valid SMS, the Command Processor handles the execution of commands like retrieving contacts, changing profiles, and locking the device.

ProfileManager: Manages the phone's sound profile, allowing users to switch between silent, vibrate, and normal modes via SMS.

LocationManager: Retrieves the phone's location and sends it back to the user via SMS.

ContactManager: Fetches contact details from the device's contact list based on the contact name provided in the SMS command.

PhoneLocker: Locks the phone remotely, ensuring the security of the device if it's misplaced or lost.

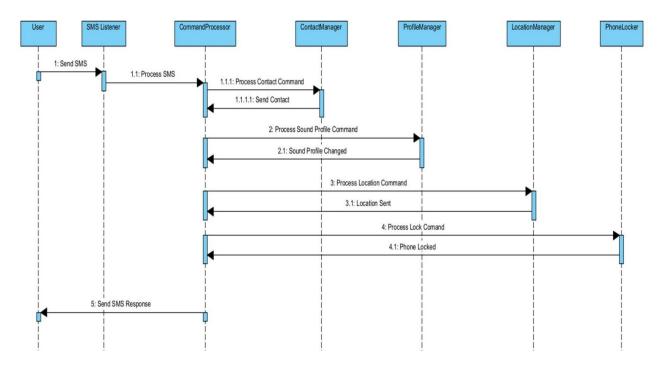


FIGURE 1: Sequence Diagram

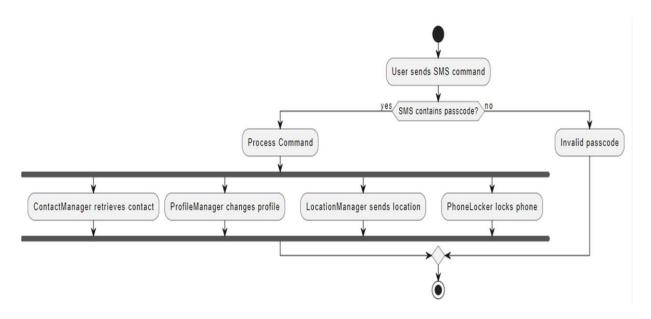


FIGURE 2: Activity Diagram

5 RESEARCH METHODOLOGY

A structured methodology was followed to ensure thorough development and testing:

5.1 Data Collection

Data from potential users was gathered, processed, and organized within the database, ensuring users have access to accurate and comprehensive information.

5.2 Platform Development

The application was developed in several phases:

1. Initial Setup:

HTML and CSS were used to establish the basic application structure and layout, focusing on a user-friendly interface.

2. Location-Based Services

GPS integration allowed the facility locator to provide users with accurate location data.

3. Event-Driven Architecture

Node.js is event-driven and asynchronous, which suits the development of scalable applications, especially those handling many simultaneous requests (such as SMS-based services).

4. Modular Design

The separation into controllers, routes, and public assets indicates a modular architecture that separates concerns, making the app easier to maintain and scale.

5.3 Testing and Debugging

Conduct testing to ensure the app works correctly under different conditions:

1. Functional Testing

Ensure each feature (e.g., retrieving contacts, location tracking) works as intended.

2. Security Testing

Validate that unauthorized users cannot access the app's functionalities.

3. Performance Testing

Test the app under offline conditions to ensure smooth performance.

5.4 Deployment

Once the application is tested, deploy it on Android devices. The deployment should target a range of Android versions to maximize compatibility. After deployment, monitor the app's performance in real-world scenarios. Gather user feedback, address bugs, and update the app with new features or security patches as necessary.

6 RESULTS AND DISCUSSION

Prototype Testing: Evaluations with a sample group revealed positive feedback on the platform's usability. The majority of users reported a positive experience, particularly appreciating the user- friendly interface and quick access to functionalities. Most users reported that the application significantly improved their ability to find their devices, contact retrievals and tracking locations of their mobiles.

Comparative Analysis: The Track-Me application offers a more integrated and user-centric experience than other SMS based control systems. The centralized repository of regulations was a unique feature that made information more accessible.

Impact: The application facilitates quick and reliable SMS communication, allowing users to send and receive messages in real-time. This immediacy fosters better communication among individuals and organizations. The SMS application can improve access to information and services, particularly for underserved communities or populations with limited access to the internet. SMS remains a widely used form of communication in areas with low internet penetration.

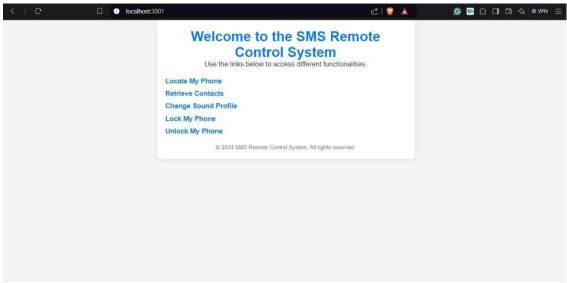


FIGURE 3: Home page of Track-me Application

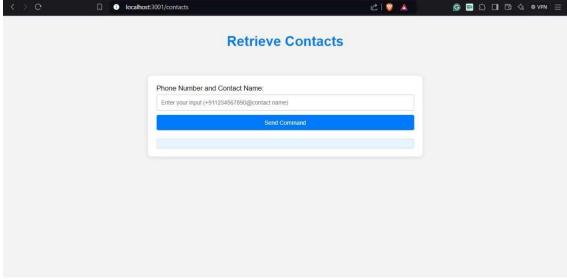


FIGURE 4: Retrieve Contacts webpage

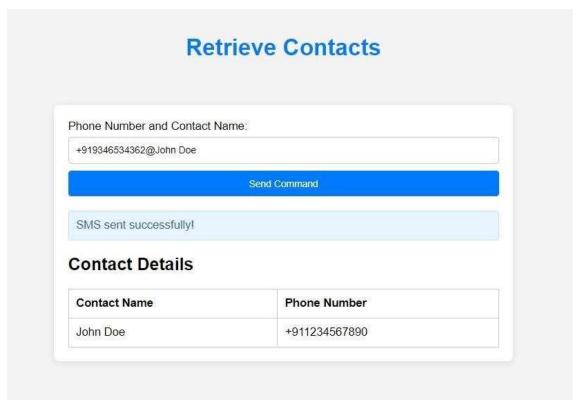


FIGURE 5: Retrieval of Contact as per User request

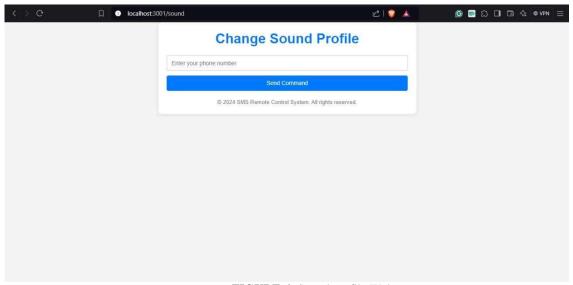


FIGURE 6: Sound profile Web page

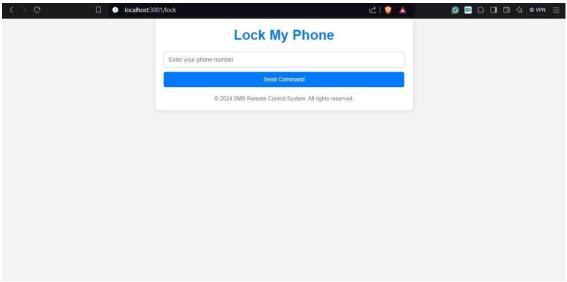


FIGURE 7: Phone locking web page

7 CONCLUSION

Track-Me is an SMS- based application can used by any Android Phone to get full access to your phone. Any phone with basic SMS feature can be used to access your phone. Suppose your phone got lost or you forgot your mobile at your home then you can do following -

- 1. You can get contact numbers from your phone contacts by sending message in specific format to your mobile number then your mobile will send you contact number.
- 2. A SMS can help you change the sound profile of your phone (silent to normal).
- 3. It help you to get location of your mobile.
- 4. It can lock your mobile if mobile doesn't have. And many more.

DECLARATIONS

Study Limitations: Limited User data may affect coverage.

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REFERENCES

- 1. Murthy, G. V. K., Sivanagaraju, S., Satyanarayana, S., & Rao, B. H. (2012). Reliability improvement of radial distribution system with distributed generation. *International Journal of Engineering Science and Technology (IJEST)*, 4(09), 4003-4011.
- 2. Gowda, B. M. V., Murthy, G. V. K., Upadhye, A. S., & Raghavan, R. (1996). Serotypes of Escherichia coli from pathological conditions in poultry and their antibiogram.
- 3. Balasubbareddy, M., Murthy, G. V. K., & Kumar, K. S. (2021). Performance evaluation of different structures of power system stabilizers. *International Journal of Electrical and Computer Engineering (IJECE)*, 11(1), 114-123.
- 4. Murthy, G. V. K., & Sivanagaraju, S. (2012). S. Satyana rayana, B. Hanumantha Rao," Voltage stability index of

- radial distribution networks with distributed generation,". Int. J. Electr. Eng, 5(6), 791-803.
- 5. Anuja, P. S., Kiran, V. U., Kalavathi, C., Murthy, G. N., & Kumari, G. S. (2015). Design of elliptical patch antenna with single & double U-slot for wireless applications: a comparative approach. *International Journal of Computer Science and Network Security (IJCSNS)*, 15(2), 60.
- 6. Murthy, G. V. K., Sivanagaraju, S., Satyanarayana, S., & Rao, B. H. (2015). Voltage stability enhancement of distribution system using network reconfiguration in the presence of DG. *Distributed Generation & Alternative Energy Journal*, 30(4), 37-54.
- 7. Reddy, C. N. K., & Murthy, G. V. (2012). Evaluation of Behavioral Security in Cloud Computing. *International Journal of Computer Science and Information Technologies*, 3(2), 3328-3333.
- 8. Madhavi, M., & Murthy, G. V. (2020). Role of certifications in improving the quality of Education in Outcome Based Education. *Journal of Engineering Education Transformations*, 33(Special Issue).
- 9. Varaprasad Rao, M., Srujan Raju, K., Vishnu Murthy, G., & Kavitha Rani, B. (2020). Configure and management of internet of things. In *Data Engineering and Communication Technology: Proceedings of 3rd ICDECT-2K19* (pp. 163-172). Springer Singapore.
- 10. Murthy, G. V. K., Suresh, C. H. V., Sowjankumar, K., & Hanumantharao, B. (2019). Impact of distributed generation on unbalanced radial distribution system. *International Journal of Scientific and Technology Research*, 8(9), 539-542.
- 11. Baskar, M., Rajagopal, R. D., BVVS, P., Babu, J. C., Bartáková, G. P., & Arulananth, T. S. (2023). Multi-region minutiae depth value-based efficient forged finger print analysis. *Plos one*, *18*(11), e0293249.
- 12. Mukiri, R. R., & Prasad, D. B. (2019, September). Developing Secure Storage of cloud with IoT Gateway. In *Proceedings of International Conference on Advancements in Computing & Management (ICACM)*.
- 13. Venkatesh, C., Prasad, B. V. V. S., Khan, M., Babu, J. C., & Dasu, M. V. (2024). An automatic diagnostic model for the detection and classification of cardiovascular diseases based on swarm intelligence technique. *Heliyon*, 10(3).
- 14. Ramesh, M., Mandapati, S., Prasad, B. S., & Kumar, B. S. (2021, December). Machine learning based cardiac magnetic resonance imaging (cmri) for cardiac disease detection. In 2021 Second International Conference on Smart Technologies in Computing, Electrical and Electronics (ICSTCEE) (pp. 1-5). IEEE.
- 15. Kumar, B. S., Prasad, B. S., & Vyas, S. (2020). Combining the OGA with IDS to improve the detection rate. *Materials Today: Proceedings*.
- 16. Siva Prasad, B. V. V., Mandapati, S., Kumar Ramasamy, L., Boddu, R., Reddy, P., & Suresh Kumar, B. (2023). Ensemble-based cryptography for soldiers' health monitoring using mobile ad hoc networks. *Automatika: časopis za automatiku, mjerenje, elektroniku, računarstvo i komunikacije*, 64(3), 658-671.
- 17. Siva Prasad, B. V. V., Sucharitha, G., Venkatesan, K. G. S., Patnala, T. R., Murari, T., & Karanam, S. R. (2022). Optimisation of the execution time using hadoop-based parallel machine learning on computing clusters. In *Computer Networks, Big Data and IoT: Proceedings of ICCBI 2021* (pp. 233-244). Singapore: Springer Nature Singapore.
- 18. Prasad, B. V., & Ali, S. S. (2017). Software–defined networking based secure rout-ing in mobile ad hoc network. *International Journal of Engineering & Technology*, 7(1.2), 229.
- 19. Elechi, P., & Onu, K. E. (2022). Unmanned Aerial Vehicle Cellular Communication Operating in Non-terrestrial Networks. In *Unmanned Aerial Vehicle Cellular Communications* (pp. 225-251). Cham: Springer International Publishing.
- 20. Prasad, B. V. V. S., Mandapati, S., Haritha, B., & Begum, M. J. (2020, August). Enhanced Security for the authentication of Digital Signature from the key generated by the CSTRNG method. In 2020 Third International Conference on Smart Systems and Inventive Technology (ICSSIT) (pp. 1088-1093). IEEE.
- 21. Balram, G., Anitha, S., & Deshmukh, A. (2020, December). Utilization of renewable energy sources in generation and distribution optimization. In *IOP Conference Series: Materials Science and Engineering* (Vol. 981, No. 4, p. 042054). IOP Publishing.
- 22. Hnamte, V., & Balram, G. (2022). Implementation of Naive Bayes Classifier for Reducing DDoS Attacks in IoT Networks. *Journal of Algebraic Statistics*, 13(2), 2749-2757.
- 23. Balram, G., Poornachandrarao, N., Ganesh, D., Nagesh, B., Basi, R. A., & Kumar, M. S. (2024, September). Application of Machine Learning Techniques for Heavy Rainfall Prediction using Satellite Data. In 2024 5th International Conference on Smart Electronics and Communication (ICOSEC) (pp. 1081-1087). IEEE.
- 24. Subrahmanyam, V., Sagar, M., Balram, G., Ramana, J. V., Tejaswi, S., & Mohammad, H. P. (2024, May). An Efficient Reliable Data Communication For Unmanned Air Vehicles (UAV) Enabled Industry Internet of Things (IIoT). In 2024 3rd International Conference on Artificial Intelligence For Internet of Things (AIIoT) (pp. 1-4). IEEE.
- 25. KATIKA, R., & BALRAM, G. (2013). Video Multicasting Framework for Extended Wireless Mesh Networks Environment. *pp-427-434*, *IJSRET*, 2(7).
- 26. Prasad, P. S., & Rao, S. K. M. (2017). HIASA: Hybrid improved artificial bee colony and simulated annealing based attack detection algorithm in mobile ad-hoc networks (MANETs). *Bonfring International Journal of Industrial Engineering and Management Science*, 7(2), 01-12.
- 27. Prasad, P. S., & Rao, S. K. M. (2017). A Survey on Performance Analysis of ManetsUnder Security

- Attacks. network, 6(7).
- 28. Reddy, P. R. S., & Ravindranath, K. (2024). Enhancing Secure and Reliable Data Transfer through Robust Integrity. *Journal of Electrical Systems*, 20(1s), 900-910.
- 29. REDDY, P. R. S., & RAVINDRANATH, K. (2022). A HYBRID VERIFIED RE-ENCRYPTION INVOLVED PROXY SERVER TO ORGANIZE THE GROUP DYNAMICS: SHARING AND REVOCATION. *Journal of Theoretical and Applied Information Technology*, 100(13).
- 30. Reddy, P. R. S., Ram, V. S. S., Greshma, V., & Kumar, K. S. Prediction of Heart Healthiness.
- 31. Reddy, P. R. S., Reddy, A. M., & Ujwala, B. IDENTITY PRESERVING IN DYNAMIC GROUPS FOR DATA SHARING AND AUDITING IN CLOUD.
- 32. Kovoor, M., Durairaj, M., Karyakarte, M. S., Hussain, M. Z., Ashraf, M., & Maguluri, L. P. (2024). Sensor-enhanced wearables and automated analytics for injury prevention in sports. *Measurement: Sensors*, 32, 101054.
- 33. Rao, N. R., Kovoor, M., Kishor Kumar, G. N., & Parameswari, D. V. L. (2023). Security and privacy in smart farming: challenges and opportunities. *International Journal on Recent and Innovation Trends in Computing and Communication*, 11(7 S).
- 34. Madhuri, K. (2023). Security Threats and Detection Mechanisms in Machine Learning. *Handbook of Artificial Intelligence*, 255.
- 35. Madhuri, K. (2022). A New Level Intrusion Detection System for Node Level Drop Attacks in Wireless Sensor Network. *Journal of Algebraic Statistics*, 13(1), 159-168.
- 36. Yakoob, S., Krishna Reddy, V., & Dastagiraiah, C. (2017). Multi User Authentication in Reliable Data Storage in Cloud. In *Computer Communication, Networking and Internet Security: Proceedings of IC3T 2016* (pp. 531-539). Springer Singapore.
- DASTAGIRAIAH, D. (2024). A SYSTEM FOR ANALYSING CALL DROP DYNAMICS IN THE TELECOM INDUSTRY USING MACHINE LEARNING AND FEATURE SELECTION. Journal of Theoretical and Applied Information Technology, 102(22).
- 38. Sukhavasi, V., Kulkarni, S., Raghavendran, V., Dastagiraiah, C., Apat, S. K., & Reddy, P. C. S. (2024). Malignancy Detection in Lung and Colon Histopathology Images by Transfer Learning with Class Selective Image Processing.
- 39. Sudhakar, R. V., Dastagiraiah, C., Pattem, S., & Bhukya, S. (2024). Multi-Objective Reinforcement Learning Based Algorithm for Dynamic Workflow Scheduling in Cloud Computing. *Indonesian Journal of Electrical Engineering and Informatics (IJEEI)*, 12(3), 640-649.
- 40. PushpaRani, K., Roja, G., Anusha, R., Dastagiraiah, C., Srilatha, B., & Manjusha, B. (2024, June). Geological Information Extraction from Satellite Imagery Using Deep Learning. In 2024 15th International Conference on Computing Communication and Networking Technologies (ICCCNT) (pp. 1-7). IEEE.
- 41. Samya, B., Archana, M., Ramana, T. V., Raju, K. B., & Ramineni, K. (2024, February). Automated Student Assignment Evaluation Based on Information Retrieval and Statistical Techniques. In *Congress on Control, Robotics, and Mechatronics* (pp. 157-167). Singapore: Springer Nature Singapore.
- 42. Sravan, K., Rao, L. G., Ramineni, K., Rachapalli, A., & Mohmmad, S. (2024). Analyze the Quality of Wine Based on Machine Learning Approach Check for updates. *Data Science and Applications: Proceedings of ICDSA 2023, Volume 3*, 820, 351.
- 43. Chandhar, K., Ramineni, K., Ramakrishna, E., Ramana, T. V., Sandeep, A., & Kalyan, K. (2023, December). Enhancing Crop Yield Prediction in India: A Comparative Analysis of Machine Learning Models. In 2023 3rd International Conference on Smart Generation Computing, Communication and Networking (SMART GENCON) (pp. 1-4). IEEE.
- 44. Ramineni, K., Shankar, K., Shabana, Mahender, A., & Mohmmad, S. (2023, June). Detecting of Tree Cutting Sound in the Forest by Machine Learning Intelligence. In *International Conference on Power Engineering and Intelligent Systems (PEIS)* (pp. 303-314). Singapore: Springer Nature Singapore.
- 45. Sekhar, P. R., & Sujatha, B. (2020, July). A literature review on feature selection using evolutionary algorithms. In 2020 7th International Conference on Smart Structures and Systems (ICSSS) (pp. 1-8). IEEE.
- 46. Sekhar, P. R., & Sujatha, B. (2023). Feature extraction and independent subset generation using genetic algorithm for improved classification. *Int. J. Intell. Syst. Appl. Eng*, 11, 503-512.
- 47. Sekhar, P. R., & Goud, S. (2024). Collaborative Learning Techniques in Python Programming: A Case Study with CSE Students at Anurag University. *Journal of Engineering Education Transformations*, 38(Special Issue 1).
- 48. Pesaramelli, R. S., & Sujatha, B. (2024, March). Principle correlated feature extraction using differential evolution for improved classification. In *AIP Conference Proceedings* (Vol. 2919, No. 1). AIP Publishing.
- 49. Amarnadh, V., & Moparthi, N. R. (2024). Range control-based class imbalance and optimized granular elastic net regression feature selection for credit risk assessment. *Knowledge and Information Systems*, 1-30.
- 50. Amarnadh, V., & Akhila, M. (2019, May). RETRACTED: Big Data Analytics in E-Commerce User Interest Patterns. In *Journal of Physics: Conference Series* (Vol. 1228, No. 1, p. 012052). IOP Publishing.
- 51. Amarnadh, V., & Moparthi, N. (2023). Data Science in Banking Sector: Comprehensive Review of Advanced

- Learning Methods for Credit Risk Assessment. International Journal of Computing and Digital Systems, 14(1), 1-xx.
- 52. Rao, K. R., & Amarnadh, V. QoS Support for Cross-Layer Scheduling Algorithm in Wireless Networks.
- 53. Selvan, M. Arul, and S. Miruna Joe Amali. "RAINFALL DETECTION USING DEEP LEARNING TECHNIQUE." (2024).
- 54. Selvan, M. Arul. "Fire Management System For Indutrial Safety Applications." (2023).
- 55. Selvan, M. A. (2023). A PBL REPORT FOR CONTAINMENT ZONE ALERTING APPLICATION.
- 56. Selvan, M. A. (2023). CONTAINMENT ZONE ALERTING APPLICATION A PROJECT BASED LEARNING REPORT.
- 57. Selvan, M. A. (2021). Robust Cyber Attack Detection with Support Vector Machines: Tackling Both Established and Novel Threats.
- 58. Selvan, M. A. (2023). INDUSTRY-SPECIFIC INTELLIGENT FIRE MANAGEMENT SYSTEM.
- 59. Selvan, M. Arul. "PHISHING CONTENT CLASSIFICATION USING DYNAMIC WEIGHTING AND GENETIC RANKING OPTIMIZATION ALGORITHM." (2024).
- 60. Selvan, M. Arul. "Innovative Approaches in Cardiovascular Disease Prediction Through Machine Learning Optimization." (2024).
- 61. FELIX, ARUL SELVAN M. Mr D., and XAVIER DHAS Mr S. KALAIVANAN. "Averting Eavesdrop Intrusion in Industrial Wireless Sensor Networks."
- 62. Raj, R. S., & Raju, G. P. (2014, December). An approach for optimization of resource management in Hadoop. In *International Conference on Computing and Communication Technologies* (pp. 1-5). IEEE.
- 63. Reddy, P. R. S., Bhoga, U., Reddy, A. M., & Rao, P. R. (2017). OER: Open Educational Resources for Effective Content Management and Delivery. *Journal of Engineering Education Transformations*, *30*(3).
- 64. Reddy, A. V. B., & Ujwala, B. Answering Xml Query Using Tree Based Association Rules.
- 65. Reddy, P. R. S., Reddy, A. M., & Ujwala, B. IDENTITY PRESERVING IN DYNAMIC GROUPS FOR DATA SHARING AND AUDITING IN CLOUD.
- 66. Khadse, S. P., & Ingle, S. D. (2011, February). Hydrogeological framework and estimation of aquifer hydraulic parameters using geoelectrical data in the Bhuleshwari river basin, Amravati District, Maharashtra. In *National Conference on Geology and Mineral Resources of India, Aurangabad* (pp. 11-12).
- 67. Ingle, S. D. Monitoring and Modeling Approaches for Evaluating Managed Aquifer Recharge (MAR) Performance.
- 68. Kumar, T. V. (2024). A Comparison of SQL and NO-SQL Database Management Systems for Unstructured Data.
- 69. Kumar, T. V. (2024). A Comprehensive Empirical Study Determining Practitioners' Views on Docker Development Difficulties: Stack Overflow Analysis.
- 70. Tambi, V. K., & Singh, N. Evaluation of Web Services using Various Metrics for Mobile Environments and Multimedia Conferences based on SOAP and REST Principles.
- 71. Kumar, T. V. (2024). Developments and Uses of Generative Artificial Intelligence and Present Experimental Data on the Impact on Productivity Applying Artificial Intelligence that is Generative.
- 72. Kumar, T. V. (2024). A New Framework and Performance Assessment Method for Distributed Deep Neural NetworkBased Middleware for Cyberattack Detection in the Smart IoT Ecosystem.
- 73. Sharma, S., & Dutta, N. (2024). Examining ChatGPT's and Other Models' Potential to Improve the Security Environment using Generative AI for Cybersecurity.
- 74. Tambi, V. K., & Singh, N. Blockchain Technology and Cybersecurity Utilisation in New Smart City Applications.
- 75. Tambi, V. K., & Singh, N. New Smart City Applications using Blockchain Technology and Cybersecurity Utilisation.
- 76. Kumar, T. V. (2018). Project Risk Management System Development Based on Industry 4.0 Technology and its Practical Implications.
- 77. Arora, P., & Bhardwaj, S. Using Knowledge Discovery and Data Mining Techniques in Cloud Computing to Advance Security.
- 78. Arora, P., & Bhardwaj, S. (2021). Methods for Threat and Risk Assessment and Mitigation to Improve Security in the Automotive Sector. *Methods*, 8(2).
- 79. Arora, P., & Bhardwaj, S. A Thorough Examination of Privacy Issues using Self-Service Paradigms in the Cloud Computing Context.
- 80. Arora, P., & Bhardwaj, S. (2020). Research on Cybersecurity Issues and Solutions for Intelligent Transportation Systems.
- 81. Arora, P., & Bhardwaj, S. (2019). The Suitability of Different Cybersecurity Services to Stop Smart Home Attacks.
- 82. Arora, P., & Bhardwaj, S. (2019). Safe and Dependable Intrusion Detection Method Designs Created with Artificial Intelligence Techniques. *machine learning*, 8(7).
- 83. Arora, Pankit, and Sachin Bhardwaj. "A Very Effective and Safe Method for Preserving Privacy in Cloud Data Storage Settings."
- 84. Arora, P., & Bhardwaj, S. (2017). A Very Safe and Effective Way to Protect Privacy in Cloud Data Storage

- Configurations.
- 85. Arora, P., & Bhardwaj, S. The Applicability of Various Cybersecurity Services to Prevent Attacks on Smart Homes.
- 86. Arora, P., & Bhardwaj, S. Designs for Secure and Reliable Intrusion Detection Systems using Artificial Intelligence Techniques.
- 87. Khan, A. (2020). Formulation and Evaluation of Flurbiprofen Solid Dispersions using Novel Carriers for Enhancement of Solubility. *Asian Journal of Pharmaceutics (AJP)*, 14(03).
- 88. Jindal, S., Singh, M., & Chauhan, J. (2024). Effect and Optimization of Welding Parameters and Flux Baking on Weld Bead Properties and Tensile Strength in Submerged Arc Welding of HSLA 100 Steel. *Transactions of the Indian Institute of Metals*, 77(3), 747-766.
- 89. Chauhan, M. J. (2017). Optimization Of Parameters For Gas Metal Arc Welding Of Mild Steel Using Taguchi's.
- 90. Singh, S., Kumar, M., Singh, J., Meena, M. L., Dangayach, G. S., & Shukla, D. K. (2023). Investigating the Influence of ASAW Process Parameters on Chemical Composition, Mechanical Properties and Corrosion Rate of HSLA Steel Weldments. *Transactions of the Indian Institute of Metals*, 76(10), 2791-2806.
- 91. Monika, J. C. A REVIEW PAPER ON GAS METAL ARC WELDING (GMAW) OF MILD STEEL 1018 BY USING TAGUCHI. *Carbon*, 100, 0-14.
- 92. Sharma, S., & Dutta, N. A Large-Scale Empirical Study Identifying Practitioners' Perspectives on Challenges in Docker Development: Analysis using Stack Overflow.
- 93. Sharma, S., & Dutta, N. (2024). Examining ChatGPT's and Other Models' Potential to Improve the Security Environment using Generative AI for Cybersecurity.
- 94. Sharma, S., & Dutta, N. Assessment of Web Services based on SOAP and REST Principles using Different Metrics for Mobile Environment and Multimedia Conference.
- 95. Sharma, S., & Dutta, N. Design and Implementation of a Pattern-based J2EE Application Development Environment.
- 96. Sharma, S., & Dutta, N. Evaluation of Potential REST Web Service Description for Graph-based Service Discovery Focused on Hypermedia.
- 97. Sharma, S., & Dutta, N. A Comparative Exploration of Unstructured Data with SQL and NO-SQL Database Management Systems.
- 98. Sharma, S., & Dutta, N. Examination of Anomaly Process Detection Using Negative Selection Algorithm and Classification Techniques.
- 99. Sharma, S., & Dutta, N. Utilization of Blockchain Technology with Cybersecurity in Emerging Smart City Applications.
- 100.Sharma, S., & Dutta, N. Practical Implications and Development of Project Risk Management Framework based on Industry 4.0 Technologies.
- 101.Sharma, S., & Dutta, N. Design and Development of Project Risk Management System using Industry 4.0 Technology and Its Practical Implications.
- 102. Davuluri, S. K., Alvi, S. A. M., Aeri, M., Agarwal, A., Serajuddin, M., & Hasan, Z. (2023, April). A Security Model for Perceptive 5G-Powered BC IoT Associated Deep Learning. In 2023 International Conference on Inventive Computation Technologies (ICICT) (pp. 118-125). IEEE.
- 103.Rathod, C. H. A. N. D. A. R., & Reddy, G. K. (2016). Experimental investigation of angular distortion and transverse shrinkage in CO2 arc welding process. *International Journal of Mechanical Engineering*, 5, 21-28.
- 104.Rao, G. V., Reddy, G. K., Jagadish Babu, G., & Rao, V. V. S. (2012). Prediction of thermal post buckling and deduction of large amplitude vibration behavior of spring-hinged beams. *Forschung im Ingenieurwesen*, 76, 51-58.
- 105.Reddy, E. J., Reddy, G. K., & Rajendra, D. (2021). Design of lifting tackle for armor plate of sinter machine. *International Journal on Technical and Physical Problems of Engineering*, 13, 23-28.
- 106.Reddy, G. K., & Sravanthhi, B. (2019). Design and analysis of a propeller blade used for marine engine. *International Journal of Scientific Research in Science, Engineering and Technology*, 6(1), 440-445.
- 107. Reddy, H., Reddy, G., Phanindra, G., & Kumar, K. (2018). Design and Analysis of Condenser Using 3D Modelling Software. *International Journal of Research in Engineering and Technology*, 7, 2319-1168.
- 108.Reddy, E. J., & Sridhar, C. N. V., Rangadu VP (2015) Knowledge Based Engineering: Notion, Approaches and Future Trends. *Am J Intell Syst*, 5, 1-17.
- 109.Reddy, E. J., & Rangadu, V. P. (2018). Development of knowledge based parametric CAD modeling system for spur gear: An approach. *Alexandria engineering journal*, *57*(4), 3139-3149.
- 110. Jayakiran Reddy, E., Sridhar, C. N. V., & Pandu Rangadu, V. (2016). Research and development of knowledge based intelligent design system for bearings library construction using solidworks API. In *Intelligent Systems Technologies and Applications: Volume 2* (pp. 311-319). Springer International Publishing.
- 111.Reddy, E. J., Venkatachalapathi, N., & Rangadu, V. P. (2018). Development of an approach for Knowledge-Based System for CAD modelling. *Materials Today: Proceedings*, 5(5), 13375-13382.
- 112.Reddy, E., Kumar, S., Rollings, N., & Chandra, R. (2015). Mobile application for dengue fever monitoring and tracking via GPS: case study for fiji. *arXiv preprint arXiv:1503.00814*.

- 113.Parthiban, K. G., & Vijayachitra, S. (2015). Spike detection from electroencephalogram signals with aid of hybrid genetic algorithm-particle swarm optimization. *Journal of Medical Imaging and Health Informatics*, 5(5), 936-944.
- 114. Mathew, O. C., Dhanapal, R., Visalakshi, P., Parthiban, K. G., & Karthik, S. (2020). Distributed security model for remote healthcare (dsm-rh) services in internet of things environment. *Journal of Medical Imaging and Health Informatics*, 10(1), 185-193.
- 115.Parthiban, K. G., Vijayachitra, S., & Dhanapal, R. (2019). Hybrid dragonfly optimization-based artificial neural network for the recognition of epilepsy. *International Journal of Computational Intelligence Systems*, 12(2), 1261-1269.
- 116.Bhat, S. (2024). Building Thermal Comforts with Various HVAC Systems and Optimum Conditions.
- 117.Bhat, S. Automobile Cabin Pre-Conditioning Method Driven by Environmental Conditions with Multi-Satisfaction Goals.
- 118.Bhat, S. Thermal Comfort Models' Applicability to Automobile Cabin Environments.
- 119.Bhat, S. Discovering the Attractiveness of Hydrogen-Fuelled Gas Turbines in Future Energy Systems.
- 120.Bhat, S. Increasing the Cooling Efficiency of Data Centre Servers with Heat Pipes Based on Liquid Cooling.
- 121.Bhat, S. Deep Reinforcement Learning for Energy-Efficient Thermal Comfort Control in Smart Buildings.
- 122. Bhat, S. (2020). Enhancing Data Centre Energy Efficiency with Modelling and Optimisation of End-To-End Cooling.
- 123. Bhat, S. (2015). Design and Function of a Gas Turbine Range Extender for Hybrid Vehicles.
- 124.Bhat, S. (2015). Deep Reinforcement Learning for Energy-Saving Thermal Comfort Management in Intelligent Structures.
- 125.Bhat, S. (2016). Improving Data Centre Energy Efficiency with End-To-End Cooling Modelling and Optimisation.
- 126. Tayal, S., Upadhyay, A. K., Kumar, D., & Rahi, S. B. (Eds.). (2022). *Emerging low-power semiconductor devices: Applications for future technology nodes*. CRC Press.
- 127. Kumar, T. V., & Balamurugan, N. B. (2018). Analytical modeling of InSb/AlInSb heterostructure dual gate high electron mobility transistors. *AEU-International Journal of Electronics and Communications*, *94*, 19-25.
- 128. Karthick, R., Rinoj, B., Kumar, T. V., Prabaharan, A. M., & Selvaprasanth, P. (2019). Automated Health Monitoring System for Premature Fetus. *Asian Journal of Applied Science and Technology (AJAST)*(Peer Reviewed Quarterly International Journal) Volume, 3, 17-23.
- 129. Venish Kumar, T., & Balamurugan, N. B. (2020). Three-dimensional analytical modeling for small-geometry AlInSb/AlSb/InSb double-gate high-electron-mobility transistors (DG-HEMTs). *Journal of Computational Electronics*, 19, 1107-1115.
- 130. Tejani, A. (2021). Integrating energy-efficient HVAC systems into historical buildings: Challenges and solutions for balancing preservation and modernization. *ESP Journal of Engineering & Technology Advancements*, *1*(1), 83-97.
- 131. Tejani, A., Yadav, J., Toshniwal, V., & Gajjar, H. (2022). Achieving net-zero energy buildings: The strategic role of HVAC systems in design and implementation. *ESP Journal of Engineering & Technology Advancements*, 2(1), 39-55
- 132.Govindaraj, V. (2024). The Future of Mainframe IDMS: Leveraging Artificial Intelligence for Modernization and Efficiency. *International Journal of Advanced Computer Science & Applications*, 15(11).
- 133. Jayasingh, S. K., Mishra, R. K., Swain, S., & Sahoo, A. K. SENTIMENT ANALYSIS TO HANDLE COMPLEX LINGUISTIC STRUCTURES: A REVIEW ON EXISTING METHODOLOGIES.
- 134.Bandi, M., Masimukku, A. K., Vemula, R., & Vallu, S. (2024). Predictive Analytics in Healthcare: Enhancing Patient Outcomes through Data-Driven Forecasting and Decision-Making. *International Numeric Journal of Machine Learning and Robots*, 8(8), 1-20.
- 135.Harinath, D., Bandi, M., Patil, A., Murthy, M. R., & Raju, A. V. S. (2024). Enhanced Data Security and Privacy in IoT devices using Blockchain Technology and Quantum Cryptography. *Journal of Systems Engineering and Electronics (ISSN NO: 1671-1793)*, 34(6).
- 136. Harinath, D., Patil, A., Bandi, M., Raju, A. V. S., Murthy, M. R., & Spandana, D. (2024). Smart Farming System—An Efficient technique by Predicting Agriculture Yields Based on Machine Learning. *Technische Sicherheit (Technical Security) Journal*, 24(5), 82-88.
- 137. Masimukku, A. K., Bandi, M., Vallu, S., Patil, A., Vasundhara, K. L., & Murthy, M. R. (2025). Innovative Approaches in Diabetes Management: Leveraging Technology for Improved Healthcare Outcomes. *International Meridian Journal*, 7(7).
- 138. Harinath, D., Patil, A., Ramadevi, G. R., Bandi, M., Murthy, M. R., & Reddy, K. S. Enhancing Routing Efficiency and Performance in Mobile Ad-Hoc Networks Using Deep Learning Techniques.
- 139. Thamma, S. R. (2024). A Comprehensive Evaluation and Methodology on Enhancing Computational Efficiency through Accelerated Computing.
- 140. Thamma, S. R. (2024). An Experimental Analysis of Revolutionizing Banking and Healthcare with Generative AI.
- 141. Thamma, S. R. (2024). A Case Study on Transforming Legacy Databases Seamless Migration to Snowflake.
- 142. Vadisetty, R. (2020). Privacy-Preserving Machine Learning Techniques for Data in Multi Cloud

- Environments. Corrosion Management ISSN: 1355-5243, 30(1), 57-74.
- 143. Vadisetty, R. (2024, November). Multi Layered Cloud Technologies to achieve Interoperability in AI. In 2024 International Conference on Intelligent Computing and Emerging Communication Technologies (ICEC) (pp. 1-5). IEEE
- 144. Vadisetty, R. (2024, November). The Effects of Cyber Security Attacks on Data Integrity in AI. In 2024 International Conference on Intelligent Computing and Emerging Communication Technologies (ICEC) (pp. 1-6). IEEE.
- 145. Vadisetty, R. (2024, November). Efficient Large-Scale Data based on Cloud Framework using Critical Influences on Financial Landscape. In 2024 International Conference on Intelligent Computing and Emerging Communication Technologies (ICEC) (pp. 1-6). IEEE.
- 146.Mahalakshmi, A., Goud, N. S., & Murthy, G. V. (2018). A survey on phishing and it's detection techniques based on support vector method (Svm) and software defined networking (sdn). *International Journal of Engineering and Advanced Technology*, 8(2), 498-503.
- 147. Swapna Goud, N., & Mathur, A. (2019). A certain investigations on web security threats and phishing website detection techniques. *International Journal of Advanced Science and Technology*, 28(16), 871-879.
- 148. Swapna, N. (2017). "Analysis of Machine Learning Algorithms to Protect from Phishing in Web Data Mining". *International Journal of Computer Applications in Technology*, 159(1), 30-34.
- 149.SAIPRASANNA, S., GOUD, N. S., & MURTHY, G. V. (2021). ENHANCED RECURRENT CONVOLUTIONAL NEURAL NETWORKS BASED EMAIL PHISHING DETECTION. *Elementary Education Online*, 20(5), 5970-5970.
- 150.Balakrishna, G., & Nageshwara Rao, M. (2019). Study report on using IoT agriculture farm monitoring. In *Innovations in Computer Science and Engineering: Proceedings of the Sixth ICICSE 2018* (pp. 483-491). Springer Singapore.
- 151.Balakrishna, G., & Moparthi, N. R. (2020). Study report on Indian agriculture with IoT. *International Journal of Electrical and Computer Engineering*, 10(3), 2322.
- 152. Moparthi, N. R., Balakrishna, G., Chithaluru, P., Kolla, M., & Kumar, M. (2023). An improved energy-efficient cloud-optimized load-balancing for IoT frameworks. *Heliyon*, *9*(11).
- 153.Balakrishna, G., & Moparthi, N. R. (2019). ESBL: design and implement a cloud integrated framework for IoT load balancing. *International Journal of Computers Communications & Control*, *14*(4), 459-474.
- 154. Shailaja, K., & Anuradha, B. (2016, December). Effective face recognition using deep learning based linear discriminant classification. In 2016 IEEE international conference on computational intelligence and computing research (ICCIC) (pp. 1-6). IEEE.
- 155.Reddy, K. S. S., Manohara, M., Shailaja, K., Revathy, P., Kumar, T. M., & Premalatha, G. (2022). Power management using AI-based IOT systems. *Measurement: Sensors*, 24, 100551.
- 156.Swetha, A., & Shailaja, K. (2020). An Effective Approach for Security Attacks Based on Machine Learning Algorithms. In *Advances in Computational Intelligence and Informatics: Proceedings of ICACII 2019* (pp. 293-299). Springer Singapore.
- 157. Shailaja, K., Vaishnavi, K., Shilpa, P., Naveen, S., & Goud, C. U. Data Augmentation for Medical Image Analysis.
- 158.Ahmad, S. S., Tejaswi, S., Latha, S. B., Kumari, D. S., Prasad, S. D. V., & Bethu, S. (2023, December). Deep learning based mitosis detection for breast cancer prognosis. In *AIP Conference Proceedings* (Vol. 2938, No. 1). AIP Publishing.
- 159. Tejaswi, S., Sivaprashanth, J., Bala Krishna, G., Sridevi, M., & Rawat, S. S. (2023, December). Smart Dustbin Using IoT. In *International Conference on Advances in Computational Intelligence and Informatics* (pp. 257-265). Singapore: Springer Nature Singapore.