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Education

	Degree	Year	Institute	Specialization
1	B. E.	2004	Jawaharlal Nehru National College of Engineering (JNNCE), Shivamoga	CSE
2	M.Tech.	2014	Siddaganga Institute of Technology (SIT), Tumakuru	CSE
3	Ph.D.	2023	Siddaganga Institute of Technology (SIT), Tumakuru	Machine Learning

Professional Experience

Sl	Date (from-to)	Designation	Organization
1	04/08/2008-Till the date	Assistant Professor	SIT, Tumakuru

Affiliations of Professional organizations

Life member: Indian Society for Technical Education (ISTE)

Life Member: The Institution of Engineers (India) (IEI)

Courses Taught

Undergraduate Courses

- Artificial Intelligence and Machine Learning
- Machine Learning
- Computer Networks
- Theory of Computation
- Operating System
- Computer Organization
- Analysis and Design of Algorithms
- Object Oriented Programming with C++
- Unix and Shell Programming
- Foundations of C programming

Postgraduate Courses

- Advanced Mathematics for Computer Science

Research Areas

- Machine Learning
- Intelligent Transportation
- Cloud Computing
- Data Science

Publications

Journals

1. SNV Kumar, CL Anitha, BP Ashwini, RM Savithamma, S Kamble, "Performance Benchmarking of Redpanda an event streaming platform using SBK and Open Messaging Frameworks," *Journal of Electrical Systems*, vol. 20, (6), pp. 1148-1161, 2024. Available: <https://www.proquest.com/scholarly-journals/performance-benchmarking-redpanda-event-streaming/docview/3076296846/se-2>.
2. Savithamma, R.M., Anitha, C.L., Sanjay Kumar, N.V. et al. Automatic attack detection in IOT environment using relational auto encoder with enhanced ANFIS. *Int. j. inf. technol.* 16, 5307–5315 (2024). <https://doi.org/10.1007/s41870-024-02141-0>
3. N. Shwetha, B. P. Ashwini, R. M. Savithamma, C. P. Prabodh, "An Automated Certificate Validation System Using Blockchain Technology for the Hiring Process," *International Journal of Engineering Trends and Technology*, vol. 72, no. 8, pp. 112-127, 2024. Crossref, <https://doi.org/10.14445/22315381/IJETT-V72I8P113>
4. S. R M and R. Sumathi, "Intelligent traffic signal controller for heterogeneous traffic using reinforcement learning," *Green Energy Intell. Transp.*, vol. 2, no. 6, p. 100124, 2023, doi: <https://doi.org/10.1016/j.geits.2023.100124>.
5. S. R M, S. R, and S. H S, "Variability Analysis of Isolated Intersections Through Case Study," *Int. J. Eng. Trends Technol.*, vol. 70, no. 8, pp. 359–374, 2022, doi: [10.14445/22315381/ijett-v70i8p237](https://doi.org/10.14445/22315381/ijett-v70i8p237).
6. R. M. Savithamma, R. Sumathi, and H. S. Sudhira, "Reinforcement learning based traffic signal controller with state reduction," *J. Eng. Res.*, vol. 11, no. 1, p. 100017, 2023, doi: [10.1016/j.jer.2023.100017](https://doi.org/10.1016/j.jer.2023.100017).
7. R. Sumathi, R. M. Savithamma, and B. P. Ashwini, "Curriculum Compliance Improvement Model for Addressing Program Outcomes in Engineering Education," *J. Eng. Educ. Transform.*, vol. 37, no. 1, 2023.
8. R Sumathi, Savithamma R M, Ashwini B P, "A Systematic Framework for Designing and Implementing Outcome-Based Curriculum in Engineering Education: A Comprehensive Approach", *Journal of Engineering Education Transform*, Year: 2024, Volume: 37, Issue: Special Issue 2, Pages: 216-224, DOI: [10.16920/jeet/2024/v37is2/24043](https://doi.org/10.16920/jeet/2024/v37is2/24043)
9. H. S. S. Savithamma R M, R Sumathi, "SMART Emergency Vehicle Management at Signalized Intersection," *Indian J. Sci. Technol.*, no. 1, pp. 1754–1763, 2022, doi: [10.17485/IJST/v15i35.1151](https://doi.org/10.17485/IJST/v15i35.1151).

10. B. Sathish Babu and R. M. Savithramma, "Optimised pre-copy live VM migration approach for evaluating mathematical expression by dependency identification," *Int. J. Cloud Comput.*, vol. 5, no. 4, p. 247, 2016, doi: 10.1504/ijcc.2016.10001880.

Conference Proceedings

1. Nooji P.; Savithramma R.M.; Ashwini B.P.; Pinto M., "Natural Language Processing and Collocations for Generating Enhanced Health Data Insights", 4th International Conference on Ubiquitous Computing and Intelligent Information Systems (ICUIS), Year: 2024, DOI:10.1109/ICUIS64676.2024.10866531
2. C A Sohana, Suha Saeed, SU Thanushree, R Sumathi, BP Ashwini, RM Savithramma, "Analysing trends and forecasting rainfall in subregions of Karnataka using machine learning models", 2025, AIP Conference Proceedings <https://doi.org/10.1063/5.0242414>
3. Pavitha Nooji, RM Savithramma, BP Ashwini, Merwin Pinto, "Boosting Multi-Class Emotion Detection Through Hyperparameter Optimization", International Conference on IoT Based Control Networks and Intelligent Systems (ICICNIS) – 2024, DOI: 10.1109/ICICNIS64247.2024.10823278
4. RM Savithramma, BP Ashwini, BP Aparna, Ujwal Pai Jakarbet, SP Suhas, Arshan Ali Khan, "Machine Learning Based Public Transit Bus Arrival Time Prediction System", 2024 4th International Conference on Ubiquitous Computing and Intelligent Information Systems (ICUIS), DOI:10.1109/ICUIS64676.2024.10866233
5. Ujwal Pai Jakarbet, Arshan Ali Khan, SP Suhas, RM Savithramma, BP Ashwini, "Comparative Analysis of Various Game Theory Algorithms for CPU and GPU Resource Allocation", 2024 4th International Conference on Ubiquitous Computing and Intelligent Information Systems (ICUIS),
6. N Pavitha, RM Savithramma, BP Ashwini, Amruta Mankawade, Yojana Naik, Yashashree Bedmutha, "Intelligent Predictive Maintenance for Smart Building Systems", 2024 2nd International Conference on Self Sustainable Artificial Intelligence Systems (ICSSAS), DOI: 10.1109/ICSSAS64001.2024.10760900
7. Arshan Ali Khan, MD Sha Fahad, RM Savithramma, BP Ashwini, "Predictive Modeling for Heart Disease Detection using Machine Learning Algorithms", 2024 First International Conference on Software, Systems and Information Technology (SSITCON)
8. U. P. Jakarbet, S. S P, S. R M and A. B P, "An Empirical Analysis of Machine Learning Algorithms for Agricultural Crop Prediction," 2024 8th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC), Kirtipur, Nepal, 2024, pp. 1782-1790, doi: 10.1109/I-SMAC61858.2024.10714677.
9. B. P. Ashwini, R. Sumathi and R. M. Savithramma, "Machine Learning Approaches for Rainfall Trend Analysis and Forecasting in Subregions of Karnataka," 2024 International Conference on Data Science and Network

- Security (ICDSNS), Tiptur, India, 2024, pp. 01-07, doi: 10.1109/ICDSNS62112.2024.10691025.
10. R. Sumathi and R. M. Savithramma, "Maximizing CPU Performance: Advancing Efficiency and Fairness through Adaptive Round Robin Scheduling with Triple Queues (ARRTQ)," 2024 Second International Conference on Data Science and Information System (ICDSIS), Hassan, India, 2024, pp. 1-6, doi: 10.1109/ICDSIS61070.2024.10594037.
 11. B. P. Ashwini, R. M. Savithramma, R. Sumathi, and H. S. Sudhira, Information and Communication Technology in Transit Signal Priority Systems: A Review, vol. 615 LNNS, no. Ictcs 2022. Springer Nature Singapore, 2023.
 12. B. P. Aswini, R. M. Savithramma, and R. Sumathi, "Bus Dwell Time Forecasting using Machine Learning Models," 7th Int. Conf. Trends Electron. Informatics, ICOEI 2023 - Proc., no. Icoei, pp. 1156–1161, 2023, doi: 10.1109/ICOEI56765.2023.10125868.
 13. P. N, A. Mankawade, S. R. M, and A. B. P, "Cyclone Intensity Estimation Using CNN," 2023 Int. Conf. Self Sustain. Artif. Intell. Syst., no. Icassas, pp. 164–169, 2023, doi: 10.1109/icssas57918.2023.10331821.
 14. V. Prarthana, S. N. Hegde, T. P. Sushmitha, R. M. Savithramma, and R. Sumathi, "A Comparative Study of Artificial Intelligence based Vehicle Classification Algorithms used to Provide Smart Mobility," Proc. - 2022 4th Int. Conf. Adv. Comput. Commun. Control Networking, ICAC3N 2022, pp. 2341–2348, 2022, doi: 10.1109/ICAC3N56670.2022.10074282.
 15. R. M. Savithramma, B. P. A. and R. S. "Smart Mobility Implementation in Smart Cities: A Comprehensive Review on State-of-art Technologies," in 2022 4th International Conference on Smart Systems and Inventive Technology (ICSSIT), 2022, pp. 10-17, doi: 10.1109/ICSSIT53264.2022.9716288.
 16. Ashwini B P , S. R M, and R. Sumathi, "Artificial Intelligence in Smart City Applications: An overview," in 6th International Conference on Intelligent Computing and Control Systems (ICICCS), 2022, no. Icciccs, pp. 986–993, doi: 10.1109/iciccs53718.2022.9788152.
 17. R. M. Savithramma, R. Sumathi, and H. S. Sudhira, "A Comparative Analysis of Machine Learning Algorithms in Design Process of Adaptive Traffic Signal Control System," J. Phys. Conf. Ser., vol. 2161, no. 1, 2022, doi: 10.1088/1742-6596/2161/1/012054.
 18. N. Pavitha, B. P. Ashwini, R. M. Savithramma, and R. Sumathi, "A Comparative Study of Re-Sampling Techniques on Machine Learning Model Performance," 13th Int. Conf. Adv. Comput. Control. Telecommun. Technol. ACT 2022, vol. 8, pp. 227–234, 2022.
 19. R. M. Savithramma and R. Sumathi, "Road traffic signal control and management system: A survey," Proc. 3rd Int. Conf. Intell. Sustain. Syst. ICISS 2020, pp. 104–110, 2020, doi: 10.1109/ICISS49785.2020.9315970.

20. M. K. Sinchana and R. M. Savithramma, "Survey on Cloud Computing Security," *Lect. Notes Networks Syst.*, vol. 103, no. December, pp. 1–6, 2020, doi: 10.1007/978-981-15-2043-3_1.
21. S. Yattinahalli and R. M. Savithramma, "A Personal Healthcare IoT System model using Raspberry Pi 3," *Proc. Int. Conf. Inven. Commun. Comput. Technol. ICICCT 2018*, no. Icticct, pp. 569–573, 2018, doi: 10.1109/ICICCT.2018.8473184.