Faculty Profile

Name : Dr. Rajeshwari D Designation : Associate Professor Department : Information Science & Engineering Contact Details: E-mail : drrajeshwari@nie.ac.in Phone : 7829882872	

About me:

Dr. Rajeshwari Dembala holds a B.E., M.Tech., and Ph.D. in Computer Science and Engineering from Visvesvaraya Technological University, Belagavi, India. With over 21 years of teaching experience, she currently serves as an Associate Professor in the Department of Information Science and Engineering at the National Institute of Engineering, Mysuru.

Dr. Rajeshwari has published 18 research papers in reputed journals and more than 5 papers in national and international conferences. She has also contributed to book chapters and holds patents in her areas of research. Her research interests include Data Mining, Artificial Intelligence, the Internet of Things (IoT), and Data Analytics. She is actively involved in guiding and supervising research scholars.

In recognition of her contributions to the engineering profession, Dr. Rajeshwari was honoured during the 58th Engineers' Day celebration by The Institution of Engineers (India), Mysore Local Chapter. She is a Life Member of the Indian Society for Technical Education (ISTE) and a Fellow of the Institution of Engineers (India).

Qualification:
B.E. (VTU, Belagavi.), MTech (VTU Belagavi), Ph.D. (VTU, Belagavi)

Courses Taught:
- Design and Analysis of Algorithms
- Theory of Computations
- Operating Systems
- Advanced Java
- Python Programming
- Compiler Design

Publications:
Journals

Achar, H.V.B., Prasad, P.S., **Rajeshwari, D.** *et al.* Federated learning and Neuro-Symbolic AI for botnet classification in IoT-Enabled consumer devices. *Int. j. inf. tecnol.* (2025). https://doi.org/10.1007/s41870-025-02993-0

Raghu N, **Rajeshwari D**, Nasreen F, Hemanth Kumar BM, Niranjan K. (2025) Automatic Coloring Algorithm for Hand-Drawn Illustrations Based on Human Vision Model. *Indian Journal of Science and Technology*. 18(14): 1118-1128. https://doi.org/10.17485/IJST/v18i14.4056

Dembala, R., Ananthapadmanabha, K., & Dhananjaya, S. (2025). Synchronized transform-aggregate model for big data analytics towards in distributed cloud ecosystem. *International Journal of Electrical and Computer Engineering (IJECE), 15*(4), 4259-4267. doi:http://doi.org/10.11591/ijece.v15i4.pp4259-4267.

Srivatsa, A., Thammaiah, A., Kumar MV, L., **D, R**., & AP, S. (2024). Secure data transmission in power systems using blockchain technology. *International Journal of Electrical and Computer Engineering (IJECE), 14*(6), 6170-6181. doi:http://doi.org/10.11591/ijece.v14i6.pp6170-6181

Gurumallu, P. K., **Dembala, R**., Gowda, D. Y., Annaiah, A. K. M., Kumar, M. K. M. V., & Gohel, H. (2025). Exploring deep learning approaches for ransomware detection: A comprehensive survey. *Recent Advances in Computer Science and Communications*, *18*(2), E290524230472.

Rajeshwari, D., Manasa, K. B., & Shruthi, B. S. (2024). Automatic Water Pumping System for Smart Greenhouse Using Renewable Energy Resources. *International Journal of Computer Science and Mobile Computing*, 13(4), . https://ijcsmc.com/docs/papers/April2024/V13I4202412.pdf.

Dembala, R., & Thammaiah, A. (2024). A simplified classification computational model of opinion mining using deep learning. International Journal of Electrical and Computer Engineering (IJECE), 14(3), 33814.

Raghu, N., Yogesh, K. S., **Rajeshwari, D**., Ganesh, S. S., Hemanth, K. B., Anil, K. D., & Niranjan, K. (2024). Design and Implementation of Smart Blind Stick for Obstacle Detection and Navigation System. Journal of Electrical systems, 20(2).

Rajeshwari D, T Ananthapadmanabha Artificial_Intelligence_Stimulus_Response_System, September 2023, International Journal For Multidisciplinary Research, Vol 5, Issue 5, Sep-Oct 2023. DOI:10.36948/ijfmr.2023.v05i05.6249.

Dr. RAJESHWARI D & Dr. Ananthapadmanabha T (March-2023). CRYPTO CURRENCY PRICE PREDICTION USING SENTIMENT ANALYSIS. *International Journal of Novel Research and Development (IJNRD)*, 8(3), a310-a326

Rajeshwari, D., et al. (2022). GARBAGE ZERO (GARB0): SMART GARBAGE MONITORING AND CLEARING SYSTEM USING THE INTERNET OF THINGS. Journal of Data Reduction and Specialized Research, 12(10), 136-140.

Rajeshwari, D; Puttegowda. D. Modeling a Functional Engine for the Opinion Mining as a Service using Compounded Score Computation and Machine Learning, International Journal of Advanced Computer Science and Applications; West Yorkshire Vol. 12, Iss. 3, (2021). DOI:10.14569/IJACSA.2021.0120319.

Rajeshwari, D., & Vagdevi, S. (2020). Framework for opinion as a service on review data of customer using semantics based analytics. *International Journal of Electrical and Computer Engineering (IJECE)*, 10(5), 5453-5461

Lydia S Sabnath, Rakshitha H S, Pushpalatha N , **Rajeshwari D**, LEAF DISEASE DETECTION AND MONITORING SYSTEM USING IOT, Volume: 07 Issue: 08 Aug 2020 , International Research Journal of Engineering and Technology (IRJET).

Rajeshwari, D. (2015). State of the art of big data analytics: A survey. *International Journal of Computer Applications*, *120*(22-5).2015.

Rajeshwari D, Meghana v Prakash, Nethravathi A M, Varshini S V, Vaibhavi H R, Scare Away Animals, vol 6, issue 5, International Research Journal of Engineering and Technology, 05,2019.

Rajeshwari D Harshitha K S , Hiteshi Shinde K H , Pallavi R K , Varun H K, NFC based prepaid system on android, vol 3, issue 5, International journal of recent trends in engineering & Research,9,2017.

Conference Proceedings

R. D, S. Dhananjaya, M. KB, C. P and S. B. S, "AI Infused Secure Biometric Authentication for Remote Patient Monitoring Systems," *2025 2nd International Conference on Research Methodologies in Knowledge Management, Artificial Intelligence and Telecommunication Engineering (RMKMATE)*, Chennai, India, 2025, pp. 1-8, doi: 10.1109/RMKMATE64874.2025.11042770.

M. Manimaraboopathy**, R. D**, R. Rathiya, C. B. Selva Lakshmi, V. Lathajothi and S. SN, "Enhanced Sarcasm Detection using Grey Wolf Optimizer with Deep Learning on Social Media," *2024 Second International Conference on Intelligent Cyber Physical Systems and Internet of Things (ICoICI)*, Coimbatore, India, 2024, pp. 1572-1577, doi: 10.1109/ICoICI62503.2024.10696424.

Rajeshwari, D., Puttegowda, D. (2021). A Hybrid Approach with Machine Learning Towards Opinion Mining for Complex Textual Content. In: Silhavy, R. (eds) Software Engineering and Algorithms. CSOC 2021. Lecture Notes in Networks and Systems, vol 230. Springer, Cham. https://doi.org/10.1007/978-3-030-77442-4_55.

R. Dembala and S. Vagdevi, "Conceptual notion for opinion mining from upcoming big data," *2017 International Conference on Electrical, Electronics, Communication, Computer,*

and Optimization Techniques (ICEECCOT), Mysuru, India, 2017, pp. 1-5, doi: 10.1109/ICEECCOT.2017.8284591.

Rajeshwari D Chaithra C, Neha H, H Pooja, Harshitha T N, Automation of Form Filling, National Conference on Engineering Innovations and Solutions (NCEIS – 2018) International Journal of Scientific Research in Computer Science, Engineering and Information Technology, 2018.

RD Charumathi K, Nidhi A B, Samanvitha B S, Impana V, Smart Bridge Safety Monitoring System
National Conference on Engineering Innovations and Solutions (NCEIS – 2018)

Book Chapters

Harshitha K S, **Rajeshwari D**, Prasanna Kumar G, Bouziane Brik *Harnessing blockchain to fortify military cyber security in the era of AI in the edited book* Artificial Intelligence for Military Applications with Blockchain (1st ed.). CRC Press. https://doi.org/10.1201/9781032712734.

D Rajeshwari, T Ananthapadmanabha, A Prototype of a Smart Phone-Controlled Lawn Mower Using Android App, Advances in SIoT -(Social Internet of Things) (Eds.). (2023).). CRC Press. https://doi.org/10.1201/9781003282990.

Rajeshwari, D., Puttegowda, D. (2021). A Hybrid Approach with Machine Learning Towards Opinion Mining for Complex Textual Content. In: Silhavy, R. (eds) Software Engineering and Algorithms. CSOC 2021. Lecture Notes in Networks and Systems, vol 230. Springer, Cham. https://doi.org/10.1007/978-3-030-77442-4_55

Other achievements:
Dr. Rajeshwari D ,Dr. Kavya AP Dr. Raghu N, Dr. Prasanna Kumar G, Dr. Suma AP, "AI based smart Glasses for Visually Impaired" Indian Design patent no. 214354 granted on 25/7/11.

Dr. Prasanna Kumar G Dr. Raghu N, **Dr. Rajeshwari D,** Artificial Intelligence AIR Purifying Device Indian design patent no. 446161-001 granted on 2025/01/30.

Mr. Niranjan K, Dr. Raghu N, Dr. Yogesh Kumarswamy, Ridhimma Reddy, Shylesh Siddeshappa, Prasanna Kumar, **Dr. Rajeshwari Dembala**, Suma AP, Smart Navigation stick for the visually impaired, uk design patent granted on 1st august , 2023.

Worked in editor for the book series titled " Futuristic Trends in Artificial Intelligence Volume 3, Book 10, 2024, IIP Series

Candidates Presently pursuing PhD Degree under My Guidance

Sl. No	Name of the Candidate	Degree	Title of the Thesis	Commencement Year	Status
Research Supervisor Letter Received on- 24-06-2024					
1	Sowmyashree p	Ph.D	A Novel ML algorithm for recommendation of fertilizers based on soil data	2024	Completed Coursework
2	Deepthi N	Ph.D	Recommendation system for diabetic prediction	2024	Completed Coursework
3	Veena Mohan M	Ph.D	AI Driven Optimization of Data Processing Algorithms in Wireless Sensor Networks for IOT Applications Using Machine Learning Based Data Reduction	2025	Provisionally Registered

Membership in Professional Bodies/University Bodies/Organizations

Sl. No.	Type of Membership	Professional Bodies
1	Life Member	"The Indian Institute of Engineering" (M-150520-8)
2	Life Member	"The Indian Society for Technical Education" (LM 137880)