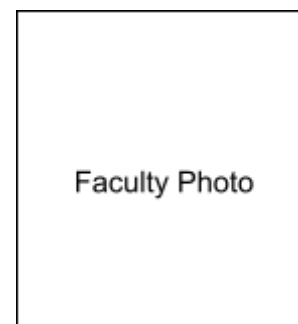


Faculty Profile

Brief Profile (Few Paragraphs)



Personal Information

- **Name:** Dr. TABITHA JANUMALA
- **Designation:** Assistant Professor
- **Department:** Electronics and Instrumentation Engineering
- **Email:** tabithajanumala@rvce.edu.in
- **Phone:** tabithajanumala@gmail.com

Google Scholar / ResearchGate / LinkedIn: [Link if applicable]/ **ORCID:** [Link]

Google Scholar: <https://scholar.google.com/citations?user=L27stnEAAAAJ&hl=en>

ResearchGate ID: [O-9364-2016](#)

ORCID ID: [0000-0003-2963-0498](#)

Domain of Expertise

Research Focus

- **Primary Area:** Embedded Programming, Digital Signal and Image processing, Data Analytics
- **Allied Areas:**
 - Programming Languages: C, C++, Java, Object Oriented Programming Language
 - AI in Biomedical Applications
 - Machine Learning, Neural Networks

Academic Qualifications

- **Ph.D.:** Electrical and Electronics Engineering, VTU, 2021
- **M.Tech.:** Biomedical Signal Processing and Instrumentation, VTU, 2010
- **B.E.:** Instrumentation Engineering, VTU, 2005

Professional Experience

Experience			
S.No	Institute/College/Industry	Job Title	Duration (From- To)
1.	R V College of Engineering	Assistant Professor	1 st September, 2007 to Till Date

Publications & Patents

Journal Publications

1. Indu U and Tabitha Janumala, "GUI-Based Secure Encryption and Decryption", International Journal of Data Science, Bioinformatics and Cyber Security (*IJDSBCS*), vol. 1, no. 1, pp. 57–62, Jun. 2025.
2. Adarsh Kaushal, Dr. Tabitha Janumala, "AI-Powered Data Visualization Agent: An Interactive Approach Using Groq LLM and E2B Code Interpreter", Advance Research in Communication Engineering and its Innovations, MAT Journals, e-ISSN: 3048-7099, Vol. 2, Issue 1 (January – April, 2025) pp: (31-38)
3. Raghav Sharma, Giriraj Soni, Rishabh Sancheti, Meeth Jain, Tabitha Janumala, "Real-Time Quality Control in Manufacturing: Leveraging Streaming Image Data and Image Processing Techniques", International Research Journal of Modernization in Engineering Technology and Science, e-ISSN: 2582-5208, Volume:06/Issue:02/February-2024.
4. Aman K. Singh¹, Ankit Srivastav², Sakshi Bharti³, Dr. Tabitha Janumala, "Crop Leaves Disease Identification Using KERAS", International Journal of Advanced Research in Computer and Communication Engineering, DOI: 10.17148/IJARCCE.2023.12119, ISSN (O) 2278-1021, ISSN (P) 2319-5940, ISO 3297:2007, Vol. 12, Issue 1, January 2023.
5. Ganesh C L, Shilpa S, Ananya D, Dr Tabitha Janumala, "Review on Various Image Processing Techniques in Satellite Imagery Applications", HBRP Publication, ISSN: 2583-9241, Vol 6, No 1 (2023), pp:(24 – 37).
6. Annesha Dasgupta, Dr. Tabitha Janumala, "Impact of Cross Talk And Its Optimization Techniques", Science, Technology and Development, ISSN : 0950-0707, Volume X Issue VI JUNE 2021, pp: (418 -422).
7. Vaishaka N Raj, Dr. Tabitha Janumala, Dinesh Naik, "Design of AI Accelerator Board Management and Monitoring System Using SMBus Interface", Science, Technology and Development, ISSN: 0950-0707 Volume X Issue VII JULY 2021, pp:(589 – 601).
8. Bhoomika P, Tabitha Janumala, Dr. K.B Ramesh, "Measurement of Truncal Imbalance in Scoliosis X-Ray Image", Journal of Emerging Technologies and Innovative Research, 2020.
9. Animita Das, Dr.Tabitha Janumala, "Classification of Scoliosis based on Multiclass SVM Model", Journal of Emerging Technologies and Innovative Research (JETIR), June 2021, Volume 8, Issue 6
10. Tabitha Janumala, Dr. K B Ramesh "A Review of Different Analysing Methods to Detect Spinal Deformity", International Journal of Advanced Research in Computer and Communication Engineering, Volume 4, Issue-8, Pages 352-355, August, 2018. Publisher, IJARCCE, DOI 10.17148/IJARCCE.2015.4876.
11. Tabitha Janumala, Mahesh Bani, Dr. Prassanna Kumar S C, "Design and simulation of estrogen hormone detection sensor", International Journal for Research Trends and Innovation, Volume 3, Issue 5, May-2018, ISSN(Online): 2456-3315 Online May, 2018.
12. Tabitha Janumala, Dr.K.B.Ramesh, Harish A Haralachar, "Development of an Image-Based Modelling Tool for the Spinal Deformity Detection Using Curve Fitting Technique", International Journal of Engineering Research in Electronics and Communication Engineering (IJERECE), Volume 5, Issue 4 , April 2018. DOI: 01.1617/vol5/iss4/pid68305. ISSN (Online) 2394- 6849 Online April, 2018.
13. Simran A Singh, Praveen Kumar Gupta, M. Rajeshwari, Tabitha Janumala, "Detection of Stress Using Biosensors", Materials Today: Proceedings, Volume 5, Issue 10, Part 1,2018,Pages 21003-21010,ISSN 2214-7853,https://doi.org/10.1016/j.matpr.2018.06.492.

Conference Papers

1. Dr. Tabitha Janumala et. "Convolutional Neural Networks for Automated Detection and Classification of Plasmodium Species in Thin Blood Smear Images", 2024 First International Conference on Software, Systems and Information Technology (SSITCON), 979-8-3503-5293-1/24 ©2024 IEEE | DOI: 10.1109/SSITCON62437.2024.10797182.
2. Tabitha Janumala, Dr.Ramesh K B, Mr. Harish A Haralachar, "Development of an image based modelling tool for the spinal deformity detection using curve fitting technique", Proceedings of "International Conference on Health and Medicine (ICHM-2018)", page 41-44. ISBN:9788192958026 Institute of Science and Engineering Research (ISER) Kuala Lumpur, Malaysia 31st March, 2018.

3. Tabitha Janumala, Dr, Ramesh K B, " Design and development of algorithm for the detection of scoliosis using Histogram technique", 16th International Conference on Academic Research in Engineering Science and Technology (AREST-2017), page 14-17. ISBN:978-93-85225-94-9 Technical Research Organisation India (TROI) Bangalore, 2nd July 2017
4. Mahesh Bani, Tabitha Janumala, Dr.Prasanna Kumar.S.C, "Design & Simulation Of Estrogen Sensor", National Conference on Knowledge Dissemination of PG Projects and Research Work , page 113. RVCE, Bengaluru. 7th -8th May ,2018.
5. Tabitha Janumala, "Telemetry Based Stress Monitoring System", National Conference on Computation Communication and Technology, held at R.V.C.E, Bangalore (January 2010).
6. Tabitha Janumala, "Telemetry Based Stress Monitoring System", National Level Conference, Communication Networks and Security conducted by the Department of Telecommunication & PG Studies held on 17th May 2010 at RVCE, Bangalore.
7. Tabitha Janumala, Dr Prasanna Kumar, "Stress monitoring based on Heart Rate and Galvanic Skin Response Using ZIGBEE", National Conference on wireless control and communication (NCWCC -11), April 2011, Page 64.

Books/Book Chapters

1. Tabitha Janumala, Ramesh, K.B. (2021). "Development of an Algorithm for Vertebrae Identification Using Speeded up Robust Features (SURF) Technique in Scoliosis X-Ray Images", In: Chen, J.IZ., Tavares, J.M.R.S., Shakya, S., Iliyasu, A.M. (eds) Image Processing and Capsule Networks. ICIPCN 2020. Advances in Intelligent Systems and Computing, vol 1200. Springer, Cham. https://doi.org/10.1007/978-3-030-51859-2_6.

Patents [Filed / Published / Granted]

1. Anomaly Detection Algorithms for Internet of Things (IoT) Environmental Sensor Data: A Statistical Analysis, 202441071961 A, 24/09/2024

Awards & Recognitions

- Awarded with Certificate of Excellence for successful completion of work let "Bixby Analytics - On Device Gibberish Classifier", by Samsung Prism from June-2021 to Jan-2022.
- Felicitated for completion of Ph.D 2022-23 in RVCE, Bangalore, by ISTE-RVCE CHAPTER.

Student Supervision

- M.Tech. Students: 6
- Undergraduate Research Mentees: 25

Professional Roles

- Chair/Committee Member:

International Conference for Women in Innovation, Technology and Entrepreneurship (ICWITE 2025)

IEEE International Conference on Biomedical Engineering and Sustainable Healthcare

8th International Conference on Computational Systems and Information Technology for Sustainable Solutions

Teaching

Core Courses: [Current semester]

- EI243AI – Microcontroller Programming and Applications
- 21EI73G4 – Data Analytics
- CS113ATA – Fundamental of Programming using C

Advanced/Lab Courses:

- EI243AI – Microcontroller Programming and Applications Lab
- 21EI63 – Digital Signal Processing Lab

Professional Roles

Responsibilities

- **Academic:** Exam Coordinator, Website Coordinator, Placement Coordinator, VTU and AICTE Portal Updating Coordinator.
- **Administrative:** Lab In-charge, Counsellor