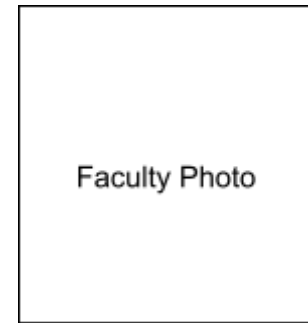


Faculty Profile

Brief Profile (Few Paragraphs)



- Dr. Govinda Raju M holds a Ph.D and serves as an Associate Professor at RVCE, where he joined in 2008 with expertise in embedded systems & computer architecture. He has been recognized for numerous achievements, including best paper awards and best project awards, and has published patents. He has delivered guest lectures and conducted workshops in advanced embedded systems, real-time systems, RTOS programming, Sensors & Actuators for automobiles and IoT to students, faculty members, and industry personnel. He conducted a series of workshops for BEL engineers on Embedded system design and Meritor working professionals in automotive mechatronics. His contributions include research publications in international journals and conferences, focusing on embedded systems, communication, and control systems.

Personal Information

- **Name:** [Dr. Govinda Raju M]
- **Designation:** [Associate Professor]
- **Department:** [Department of Electronics & Communication Engineering]
- **Email:** [govindarajum@rvce.edu.in]
- **Phone:** [080-68188179]

Google Scholar / ResearchGate /

LinkedIn: [<https://scholar.google.com/citations?user=ObqohLsAAAAJ&hl=en>],[<https://orcid.org/0000-0002-8919-5697>]

Domain of Expertise

Embedded Systems & Computer Architecture

Research Focus

- **Primary Area:** [Embedded Systems & Computer Architecture]
- **Allied Areas:**
 - [Autonomous Vehicles, RISC V, Real Time Systems]
 - [Full stack embedded software, multi-core CPUs, Hardware Accelerators]

Academic Qualifications

- **Ph.D.:** [Electronics & Communication Engineering], [VTU], [2019]
- **M.Sc./M.Tech:** [Digital Electronics & Communication Systems], [VTU], [2007]
- **B.E./B.Tech:** [Electronics & Communication Engineering], [VTU], [2004]

Professional Experience

Experience			
S.No	Institute/College/Industry	Job Title	Duration (From- To)
1.	RV College of Engineering	Associate Professor	01/09/2022- till date
2.	RV College of Engineering	Asst. Professor	01/01/2011 –31/08/2022
3.	RV College of Engineering	Lecturer	22/01/2008 –31/12/2011

Publications & Patents

Journal Publications

1. Govinda Raju M, A Madhumitha, Aishwarya G P, B P Swathi, Vanaja P, A “Comprehensive Review on Edge Computing – Architecture, Algorithm and Devices”, International Journal of Innovative Research in Technology (IJIRT), April 2025 |, Volume 11, Issue 11, ISSN: 2349-6002.
2. Govinda Raju M, Bharatha B, Chandan B N, Chirag P I, Deepanjali, “A Survey on the Latest Techniques for Implementing Machine Learning and Artificial Intelligence Algorithms on Resource – Constrained Embedded Devices”, International Journal of Innovative Research in Technology (IJIRT), April 2025, Volume 11, Issue 11, ISSN: 2349-6002.
3. Dr. Govinda Raju M, Hemanth S, Jayanth G, Keerthana H, Kumaraswamy T, “A Concise Review on Security and Privacy in Embedded Systems”, International Journal of Innovative Research in Technology (IJIRT), April 2025, Volume 11, Issue 11, ISSN: 2349-6002.
4. Govinda Raju M, Lahari R, Lohith T N, Manjunath Mandi, “A Review on Power Optimization & Energy Efficient Techniques for Embedded Systems”, International Journal of Innovative Research in Technology (IJIRT), April 2025, Volume 11, Issue 11, ISSN: 2349-6002.
5. Govinda Raju M, Prajwal, Pranav Sharman, Rabiya B, Rhaul N, “Recent Advancements in Real-Time Operating Systems (RTOS): Kernels, Scheduling Algorithms, and Middleware for Real Time Embedded Systems”, Journal of Emerging Technologies and Innovative Research, March 2025, Volume 12, Issue 3, ISSN-2349-5162.
6. Shreekrishna R K, Sagar S, Sudeep S Kodad, Rathana C, Govinda Raju M, “Human Machine Interface (HMI) – A Survey”, International Journal of Innovative Research in Technology (IJIRT), April 2025, Volume 11, Issue 11, ISSN: 2349-6002.
7. Tarun Prasanna, Tejashree A, Sushmitha Raju R, Govinda Raju M, “Study on Autonomous Driving System”, Journal of Emerging Technologies and Innovative Research, Volume 12, Issue 5, May 202, ISSN: 2349-5162
8. Tushar Masur, Tulasi Prasad H, Uday V Daivadnya, Vatsala B M, Govinda Raju M, “Embedded Systems in Electric and Hybrid Vehicles: A Comprehensive Review of Technological Advancements and Integration Challenges,” International Journal of

Innovative Research in Technology (IJIRT), April 2025, Volume 11, Issue 11, ISSN: 2349-6002.

9. Govinda Raju M, Vighnesh U, Vikram Joshi, Yamini J K, C S Mohit, "Recent Advancements in Implantable Medical Devices," International Journal of Innovative Research in Technology (IJIRT), April 2025, Volume 11, Issue 11, ISSN: 2349-6002.
10. Govinda Raju M, Tesjaswini T, Manjunath U, Tarun S N, "Heterogenous Computing Architectures in SoCs for 5G Communication," International Journal of Innovative Research in Technology (IJIRT), April 2025, Volume 11, Issue 11, ISSN: 2349-6002.
11. Sameera J Sharma, Govinda Raju M, "Analysis of Electric Vehicles Batteries using Electrochemical Impedance Spectroscopy," High Technology Letters, Volume 29, Issue 5, May 2023, ISSN: 1007-6748.
12. Govinda Raju M, Yash Ganesh Naik, "Development of Open Alliance SPI Protocol Stack for MAC-PHY," High Technology Letters, Volume 29, Issue 5, May 2023, ISSN: 1007-6748.
13. Govinda Raju M, Karmugilan, "Wireless Event-Logging for wBMS", DOI: 10.36227/techrxiv. 23118845.v2, TechXiv by IEEE.
14. Akash N P, Govinda Raju .M, "Trim State Calculation and Analysis of Hypersonic Vehicle", International Research Journal of Modernization in Engineering Technology and Science, Volume:02, Issue:02, February-2020, e-ISSN: 2582-5208.
15. Vidhath B L, Govinda Raju M, "FPGA-based Sandbox Platform for Hardware Accelerators", International Research Journal of Engineering and Technology (IRJET), Volume: 07 Issue: 05, May 2020, e-ISSN: 2395-0056, p-ISSN: 2395-0072.
16. Prateek M, Govinda Raju M, Roopa J, Akhilesh Yadav, "Analysis of Parallel M5P and Random Forest Regression for Visualization of Traffic Behavior", Springer Advances in Intelligent Systems and Computing Series, Computational Intelligence in Pattern Recognition, pp 231-241, 20 Feb 2020.
17. https://link.springer.com/chapter/10.1007/978-981-15-2449-3_19
18. Govinda Raju M, Roopa, Rahul N, Pragna G, "Bio Potential Signal Conditioning using MATLAB on Electromyography Signals", International Journal of Recent Technology and Engineering (IJRTE). ISSN: 2277-3878, volume-8, Issue-256, July 2019(Scopus Indexed).
19. Govinda Raju M, Roopa J, Amith M Ugargool, "Parallel Hardware Architecture for Implementation of High Speed MAC". International Journal of Public Health Research and Development, Vol 9, Issue 11, November 2018, ISSN:0976-5506, pp 33-38.
20. Govinda Raju M, Roopa J, "Smart Pantry Management System for Kitchen", August 2018, International Journal of Engineering and Technology.
21. Govinda Raju M, Uma B.V, "Phase Noise Reduction in WLAN by Applying Wavelet Packet Multiplexing", Journal of Communication Engineering & Systems (JoCES), STM Journals, Volume 7, Issue 3, ISSN: 2249-8613 (Online), pp 8-15, December 2017.
22. Govinda Raju M, Uma B V, "Modelling & Analysing Effects of Phase Noise in OFDM based DVB-T", International Journal of Applied Engineering Research, Volume 10, November 16, 2015, ISSN:0973-4564, 36751-36755
23. Vishwas H P, Sreekar, Suhbodh, Sreekanth, Sathvik, Roopa J, Govinda Raju M, "Public Transport Assistant for Visually Impaired (PuTAVI)", International Journal of Advanced Research in Computer and Communication Engineering, Vol. 3, Issue 11, November 2014, ISSN (Online) : 2278-1021, ISSN (Print) : 2319-5940 Impact Factor:1.770
24. Praveen R, Govinda Raju M, "Performance Comparison of Random Subcarrier Access & Spectrum Harvesting with ARQ Retransmission and Probing Type of Cognitive Radio Networks", International Journal of Advanced Research in Computer and Communication Engineering, Volume 3, Issue 6, June 2014, ISSN (Online): 2278 - 1021
25. Roopa J, Govinda Raju M, M.Sai Suchandan Reddy, A.Parmesh, R.Mahesh, "Osteoporosis Detection by Impulse Response Technique", International Journal of Advanced Research in Computer and Communication Engineering, Vol. 3, Issue 3, March 2014, ISSN (Online) : 2278-1021 ISSN (Print) : 2319-5940, Pg no: 5255-5257.

26. Roopa J, Govinda Raju M, Ullas B S, Anush S, "Machine to Machine Communication for Smart Systems using MQTT", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering Vol. 3, Issue 3, March 2014 ISSN (Print): 2320 – 3765 ISSN (Online): 2278 – 8875, Pg No: 8242 –8248.
27. Govinda Raju M, Roopa J, Ramavenkateswaran N, "Smart Traffic Congestion Control using Wireless Communication", International Journal of Advanced Research in Computer and Communication Engineering Vol 2, Issue 9, ISSN-2319-5940, September 2013
28. Govinda Raju M, Uma B.V," Design & Simulation of Wavelet OFDM with Wavelet Denoising on AWGN Channel", International Journal of Advanced Research in Computer and Communication Engineering Vol 2, Issue 8, ISSN-2319-5940, PP 3015-3018, August 2013. Impact Factor:1.770
29. Govinda Raju M, Roopa J, "Design & Implementation of closed PID mechanism for wire tension control in winding machine", International Journal of Instrumentation, Control and Automation (IJICA), Pg. 37-42, ISSN: 2231-1890,2011

Conference Papers

1. Aditya, Govinda Raju M, Frequency Calibration System for wBMS, IEEE ELEXCOM2023, August 26 – 27, in IIT Roorkee, Haridwar, Uttarakhand, India.
2. Kiran. R, Govinda Raju M, Low-Cost, Robust Data Acquisition System for Automotive Testing and Validation Using LabVIEW" Chiang Mai, Thailand on 31 October – 3 November 2023. 2023 IEEE Region 10 Conference (TENCON).
3. Harsha Y S, Govinda Raju M, Mahendra Kesarabhavi, "Customized MBIST and Repair Mechanism Implementation for Memory Testing in SoC", 7th International Conference on Microelectronics, Computing Communication Systems(MCCS-2022), 10th July 2022, ARTTC, BSNL near Jumar River Bridge, Hazaribag Road, Ranch(online mode).
4. Mohammed Ikramuddin, Govinda Raju M, Mr.Naveen Dheekonda, "Gpu Ip Pre Silicon Validation Using Crest in DFT-DVT Environment", 7th International Conference on Microelectronics, Computing Communication Systems(MCCS-2022), 10th July 2022, ARTTC, BSNL near Jumar River Bridge, Hazaribag Road, Ranch(online mode).
5. Syed Farhan Ahmad,Utkarsh Jha,Raghav Rawat, Govinda Raju M, "Audio Distress Signal Recognition in Rural and Urban Areas using a WSN consisting of Portable Resource-Constrained Devices", 2021 28th IEEE International Conference on Electronics, Circuits, and Systems (ICECS), DOI: 10.1109/ICECS53924.2021, Dubai,UAE, 28th Nov- 1st Dec 2021.
6. Mitali M, Govinda Raju M., "Defect Analysis in Memory Unit", 5th International Conference on Microelectronics Computing and Communication Systems(MCCS-2020), IETE, Jharkhand, 11th -12th July 2020.
7. Govinda Raju M, Roopa J, Santhosh AR, "Smartphone Application for Silkworm Egg Detection and Counting", International Conference on Innovations in Engineering, Technology and Sciences-2018, NIE Institute of Technology, Mysore, 20-21 September 2018.
8. Govinda Raju M, Roopa J, "Smart Pantry Management System for Kitchen", International Conference on Materials, Applied Physics and Engineering (ICMAE-2018), 3rd- 4th June 2018, IIT Indore.(Cited in International Journal for Engineering and Technology).
9. Vellampati Harathi, Govinda Raju M, "Implementation of performance improved controller for SoC", IEEE international conference on Intelligent Computing and Control, Karpagam College of Engineering, Tamilnadu, India, 23-24 June 2017.
10. Sharadha Jogandhar, Govinda Raju M, "Bluetooth Low Energy Packet Sniffer", IEEE international conference on Intelligent Computing and Control, Karpagam College of Engineering, Tamilnadu, India, 23-24 June 2017.
11. Koushik B, Roopa J, Govinda Raju M, B S Satyanarayana, Manohar, Biswajit Roy "Design

- of Prosthetic Arm and Signal Condition & Acquisition System for EMG Signals", 3rd Springer International Conference on computer & Communication Technologies, MIC College of Engineering, Vijayawada, 5th-6th November 2016
12. Govinda Raju M, Uma B V, "A Wavelet Multiplexing Method to reduce Effects of Phase Noise in OFDM based DVB-T", 6th International Conference in Advances in Computing & Communications, September 2016, Cochin, India, (Elsevier Conference)
 13. Govinda Raju M, Uma B V, A Satish, "Analysis of Performance of DWT based OFDM for WLAN in the presence of Phase Noise", IEEE 2016 International conference on innovations in Information , Embedded & Communication System, Coimbatore, India.
 14. Govinda Raju M, Uma B V, Yadunandan, "Modelling & Analyzing Effects of Phase Noise in OFDM", IEEE International Conference on Electronics, Electrical, Signals, Communication & Optimization (EESCO-2015), 24th-25th January 2015, Vignan's Institute of Information Technology, Vizag, pg.1131-1135.
 15. Dheeraj Yadav, Nivas K A, Pratheek P, Pranav Neeli, Roopa J, Govinda Raju M "Development and characterization of polypyrrole thin films and design of LPG leak detection system", 27th - 28th April 2014 Munnar, Kerala, India.
 16. Roopa J, Govinda Raju M, Radha.H.G, Himaprabha. S, Lakshmi Bramhini. S, Kanya. B.S, "GSM Based Cubicle Security System", International Conference on Advance Engineering & Technology (ICAET), 23rd March, 2014, Bangalore ISBN No.: 978-3-642-24819-5, Pg No: 70 - 73
 17. Govinda Raju M, B V Uma, "Design & Simulation of Wavelet OFDM with Wavelet Denoising on AWGN Channel", International Conference on Convergence of Science, Engineering & Management in Education and Research-A Global Perspective, 26th -27th September 2013, Dayananada Sagar Collge of Engineering, Bangalore
 18. Govinda Raju M, Roopa J, "A Four Legged Locomotion Robot inspired by a Spider", International conference on Information & Communication Engineering (ICICE-2013), 28th June 2013, Bangalore
 19. Govinda Raju M, Roopa J, "Wireless Mobile Charging Using Bluetooth", International conference on Information & Communication Engineering (ICICE-2013), 28th June 2013, Bangalore
 20. Govinda Raju M, Roopa J, "Public Transport Management System", International Conference on Information & Communication Engineering, Bangalore, ISBN: 978-81-31703-83-2, 28 June 2013.
 21. Govinda Raju M, Roopa J, "Computerized Anesthesia Flow control", International Conference on Information & Communication Engineering, Bangalore, ISBN: 978-81-31703-83-2, 28 June 2013.
 22. Govinda Raju M, Roopa J, "Design and Implementation of DSP based Controller Card for Automatic Coil Winding Machine", International Conference on Controls and Instrumentation Technology (CISCON-2011), 3rd -6th Nov 2011, MIT, Manipal
 23. Govinda Raju M, Roopa J, "Design & Implementation of Closed Loop PID Mechanism for wire Tension Control (Tensioner) in Winding Machine", International Conference on Control, Communication and Computer Technology (CCCT 2011) , August 6th - 7th 2011, VITS Delhi - NCR Hotel, Anand Vihar, ISBT Delhi
 24. Govinda Raju M, Uma B.V, "Design and Simulation of Wavelet Based DVB-t", National conference on Power, Control, Communication and Instrumentation leading to Sustainable Technologies [NCPCCI-15], RV college of Engineering, Bangalore, 24th -25th April 2015.
 25. Govinda Raju M, Roopa J, E Muniraju, Amith K B, Harshith Shetty, Adarsha Sagara M, Soumya M, "A Novel Approach to Solve Absentee Landlord Problem In Sericulture Farming", National Conference on Recent Advances in Modern Biology & Sericulture for Women Empowerment & Rural Development, 24-26th October, 2013. Karnataka State Sericulture Research & Development Institute, Bangalore
 26. GovindaRaju M, Roopa J, E Muniraju, Adrsh J K, Arun Kumar, Sampath, "Vocal Assistance

for Sericulture Calendar”, National Conference on Recent Advances in Modern Biology & Sericulture for Women Empowerment & Rural Development, 24-26th October, 2013. Karnataka State Sericulture Research & Development Institute, Bangalore

27. Govinda Raju M, Roopa J, “Smart Traffic Management System”, Second National Conference on Computational Control Systems and Optimization CCSO-2013, Dr. Ambedkar Institute of Technology, Bangalore, 10th and 11th May 2013.
28. Govinda Raju M, Roopa J, “Design and Implementation of Smart Wristband for Safety Measures in Emergency “, TEQIP –II sponsored National Conference on Wireless, Signal Processing and Embedded Systems (WiSE- 2013), June 21st –22nd 2013, BMS College of Engineering, Bangalore.
29. Govinda Raju M, Uma B V, “Performance Comparison of FFT OFDM & Wavelet OFDM”, IETE National Conference on Communication, October 2011, RV College of Engineering, Bangalore.
30. Govinda Raju M, “Automating UI Testing of MFPs”, National conference on VLSI and Communication conducted by Saintgits College of Engineering, Kottayam, Kerala, 14-15 March 2008
31. Govinda Raju M, “Reduction of human intervention while testing UI of MFPs”, National conference on “Embedded system and Communication”, conducted by Maharashtra Engineering Academy, Alandi, Pune,

Patents **[Published]**

1. [Device to determine moisture content of mulberry leaves], [201641020468], [2018].

R & Grants & Consultancy Projects

Ongoing & Completed Research Projects

- **[Development of a Classifier based on Deep Machine Learning Algorithms for land-based Munitions]**–Funding Agency:[ARB]:[2020–2023], Role:[Co-PI].
- **[Design and Development of Sensor and Embedded system for sensing LPG]** – Funding agency: [DST-TEQIP-II CoE Macroelectronics], Duration: [2014–2016], Duration: Role: [Co-PI].
- **[Biomedical Sensors]**– Funding agency: [DST-TEQIP-II CoE Macroelectronics], Duration: [2014–2016], Duration: Role: [Co-PI].
- **[Retinal Fundus: Tele-Ophthalmoscopy]**–Funding Agency: [IEEE EPICS], Duration: [2014-2015], Role: [PI].
- **[Image processing for cocoon quality Assessment]** –Funding agency: [DST-TEQIP-II CoE Macroelectronics], Duration: [2014–2016], Role: [Co-PI].
- **[System to diagnose osteoporosis by determination of tibial natural frequency]**–Funding Agency: [IEEE], Duration: [2014-2015], Role: [PI].

Ongoing & Completed Consultancy Projects

- **[Training programs on Sensors & Actuators]** – Funding Agency: [Meritor-Cummins], Duration: [2023–2024], Role: [PI].
- **[Training programs on Embedded Systems]** – Funding Agency: [BEL], Duration: [2021–2024], Role: [PI].
- **[Training programs on Embedded Systems for IoT]** – Funding Agency: [CISCO], Duration: [2018–2022], Role: [PI].

- [Online Training programs on Real Time Kernel]-Funding Agency: [CISCO], Duration: [2020-2024], Role: [PI].
- [Automatic Kitchen drawer opening and closing] – Funding Agency: [Pentavision Pvt. Ltd], Duration: [2017-2018], Role: [PI].

Professional Memberships

- [ISTE, IETE]

Awards & Recognitions

- [Best Achievement award, RSST Trust- RV College of Engineering in year: 2015,2019]
- [Best Project award, Shristi-2018, State-level Exhibition]
- [Best paper Award, EESCO-2015, IEEE conference]
- [Working model contest -2013 2nd place in BMSCE college for project demo on moisture meter]
- [Best Project award: 1st place in Chemical Engg. Dept, RVCE Frugal Engg. -2013 for project demo on moisture meter]
- [Best Project award: 1st place in Dr. AIT for project demo on moisture meter in CCSO-2013]

Student Supervision

- M.Tech/M.Sc. Students: [20]
- Undergraduate Research Mentees: [90]

Teaching

Core Courses: [Current semester]

- [EI243AI] [Microcontroller & Programming]

Advanced/Lab Courses:

- [Microcontroller & Programming]

Professional Roles

Responsibilities

- **Academic:** [Counselor, Course Co-Ordinator]
- **Administrative:** [NBA Co-Ordinator, Member of BoS, Member of BoE, Member of Finance Committee, Lab In charge]