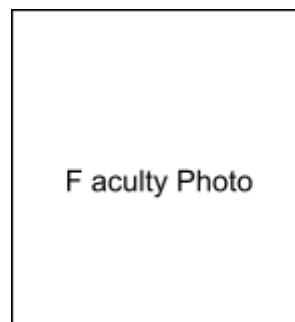


Faculty Profile

Brief Profile



Personal Information

- Name: Dr Rohini S.Hallikar
- Designation: Assistant Professor
- Department: Department of Electronics and Communication Engineering
- Email: rohinish@rvce.edu.in
- Phone: 9742169294

Google Scholar <https://scholar.google.com/citations?hl=en&user=S4ock4IAAAAJ>

ResearchGate <https://www.researchgate.net/profile/Rohini-Hallikar-2>

LinkedIn: <https://www.linkedin.com/in/dr-rohini-s-hallikar-4a05a1b9/>

ORCID: <https://orcid.org/my-orcid?orcid=0000-0002-3720-4344>

Domain of Expertise

Research Focus

- Primary Area: Signal Processing, Machine Intelligence, Wearables. Cryptography
- Allied Areas:
 - Piezoelectric materials for energy harvesting, Adaptive systems,

Academic Qualifications

- Ph.D.: Signal Processing, JNTUK,2022 (*Design and Development of Speech Encoder for Cochlear Implant System*)
- M.Tech: DEC VTU, 2005
- B.E: Electronics ,BAMU ,1996

Professional Experience

Experience

S.No	Institute/College/Industry	Job Title	Duration (From- To)
1.	Thermal Power Station Parli Vaijnath, Maharashtra	Trainee Apprentice	1997-1998
2.	Shah & Anchor Kutchhi Polytechnic, Mumai, Maharashtra	Lecturer	1998-1999
3	Ujjwal PU College, Whitefield, Bangalore	Lecturer	2000-2001
4	Jnana Vikas Institute of Technology, Bidadi, Bangalore	Lecturer	2001-2005
4	RVCE, Bangalore	Assistant Professor	2005 till date

Publications & Patents

Journal Publications

1. Aman Sablok, Rohini S. Hallikar, "SDN Integration with Firewalls and Enhancing Security Monitoring on Firewalls", International Journal of Scientific Research in Engineering and Management (IJSREM), Volume: 07 Issue: 10 | October – 2023, ISSN: 2582-3930
2. Anjali Shanbhog, Rohini S. Hallikar, "Automated scaling of Virtual network Functions", International Journal for Research Trends and Innovation(IJRTI) Vol 7, Issue 7, 2022
3. Arun Govardhan R O, Anirudh S Nadig, Hariharan S, J K B Rohit Surya, Rohini S. Hallikar, "Brain Tumor Detection, Segmentation and Comparison using ResNet and Unet", Journal of XI'AN University of Architecture & Technology, Vol XIV, Issue VII, 2022
4. Akilesh N S, Rohini S Hallikar, "End to End Representational State Transfer Application Programming Interface Development", International Journal for Research Trends and Innovation(IJRTI), Vol 7, Issue 7, July 22
5. K. Suharika, Rohini S. Hallikar, "Implementation of RFC 7798 and Ffmpeg for Encoding and Decoding of Media Files in SoftDSP", International Journal of Engineering Research & Technology(IJERT), Vol 11, Issue 07, July 2022, DOI:10.17577/IJERTV11IS070170
6. Udbhav Vikas, Karthik Sunil, Patten Deeksha, Rohini S. Hallikar, Dr Ramakanth Kumar P, "A Comprehensive Study on Demand Forecasting Methods and Algorithms for Retail Industries", Journal of University of Shanghai for Science and Technology, 44348-2021, 409-420, 23, NA, 1007-6735
7. Akshay M. Sajjanar, Kushal Kalyan P M, Mamata S Kannur, Prajwal H K, Rohini S. Hallikar, Dr. Abhay Deshpande, "Design and Implementation of a Land Surveying Robot", International Journal of Engineering Research in Electronics and Communication Engineering, 44348-2021, 44899, Vol 8, NA, 2394-6849
8. L. Sai Charan1, T. Yashodha, Rohini S. Hallikar, "IoT Sensor Node to Monitor Harmful Environmental Condition Using LoRa Technology", International Journal of Research in Engineering, Science and Management, May-2020, 528-530, 3, NA, 2581-5792
9. Dhanush N. D, Jagruth S., Rohini Hallikar, "Speech recognition system using Deep Neural Network", International Journal of Advance Research, Ideas and Innovations in Technology, May-2020, 41-43, 6, NA, 2454-132X
10. Chandana C, Rohini S Hallikar, "Optimization of Frequency Spectrum through Beam Replication", International Research Journal of Engineering and Technology (IRJET), Vol 6, Issue 6, June 2019
11. Hallikar, R.S., Uttarakumari, M. and Padmaraju, K, "A Comparative Analysis of Turbo wavelet and Turbo DRNL SSB for speech processing in Cochlear Implants" International Journal of Pure and Applied Mathematics Volume 120, No. 6, August 2018

12. [2]..Hallikar, R.S., Uttarakumari, M., Padmaraju, K and Yashas D," Modified Turbo and SDROM Method for Speech Processing for Cochlear Implants" International Journal of Engineering & Technology IJET (UAE), Special Issue 5 Vol 7, No 4.5 (2018)
13. .Hallikar, R.S., Uttarakumari, M. and Padmaraju, K., "A Reliable Hardware Implementation Using Turbo Filters for Cochlear Implants". International Journal of Engineering Technology Science and Research (IJETSR), Volume 4, Issue 11, November 2017
14. Hallikar, R.S., Uttarakumari, M. and Padmaraju, K, "Speech Enhancement using Adaptive Turbo Filter for Cochlear Implants". International Journal of Engineering Technology Science and Research, Vol 4, No12, pp.540–546.December 2017
15. Sneha Kishore Kumar Rane, Rohini S Hallikar," Comparison of the Low Power Wireless Technologies for Smart Refuelling", International Journal of Advanced Research in Computer and Communication Engineering(IJARCCE),Vol 6,Issue 5,May 2017 DOI10.17148/IJARCCE.2017.6516
16. Rohini S.Hallikar, Uttara Kumari and K Padmaraju, "A Novel Method for obtaining a Better Quality Speech Signal for Cochlear Implants Using Kalman with DRNL and SSB Technique ",Advanced Computing: An International Journal (ACIJ), Vol.3, No.4, July 2012
17. Rohini S.Hallikar, Umesh Kumar L.R., "SNMP for Monitoring Digital Video Recorders in Video Surveillance," International Journal of Computer Information systems (IJCA), 2011, Volume 3, No 2

Conference Papers

International Conferences:

1. Rohini S. Hallikar, Abhay Deshpande, Aleksei Rozhnov, Alaska Tengli, Akash Kotagi, "Secure Boot Implementation in Automotive Electronic Control Unit" published in [2024 8th International Conference on Computational System and Information Technology for Sustainable Solutions \(CSITSS\)](#), 07-09 November 2024, Bengaluru, India, DOI: [10.1109/CSITSS64042.2024.10816980](#)
2. Rajat Raj, Rohini S.Hallikar,"Adaptive Power Control Topology Based PV-Battery Microgrid System" published in 2023 4th IEEE Global Conference for Advancement in Technology (GCAT), 06-08 October 2023, Bangalore, India, DOI: [10.1109/GCAT59970.2023.10353446](#)
3. Siddharth Tripathi, Uthsav Shetty, Asif Hasnain, Rohini Hallikar," Cloud Based Intelligent Traffic System to Implement Traffic Rules Violation Detection and Accident Detection Units", Proceedings of the Third International Conference on Trends in Electronics and Informatics (ICOEI 2019) IEEE Xplore Part Number: CFP19J32-ART; ISBN: 978-1-5386-9439-8
4. Rohini S Hallikar, Shivani Munshi, Uttara Kumari and K Padmaraju, "Design and Implementation of Multichannel Piezoelectric Acoustic Sensor",COMSOL Conference Pune, India, October 2015
5. Rohini S.Hallikar, Shweta Kulkarni,M.Uttarakumari and K padmaraju, " AWGN and Impulsive Noise Removal by Turbo Audio Enhancement Technique" IEEE sponsored International Conference on Control Instrumentation Communication and Computational Technologies,ICCICCT 2014, held at department of Electronics and Instrumentation Engineering Noorul Islam Centre for Higher Education,Noorul Islam University, Kumarcoil, Tamilnadu, India, July 2014,Published by IEEE
6. H.S.Amaresh,Y G Anil Rao,Rohini S.Hallikar,"Real-Time Intruder Detection System Using Sound Localization and Background Subtraction", Published in: [2014 Texas Instruments India Educators' Conference \(TIEEC\)](#), Bangalore, India and also Published by IEEE, DOI: [10.1109/TIEEC.2014.030](#)
7. Rohini S.Hallikar, Uttara Kumari M,Varun v and Pratibha P,"GPS Enabled Wrist Watch for Safety of Women and Elderly People",2nd International online conference On Electronics, Power & Control (OCEPC2013) held at AECERI organization, Kuala Lumpur,

Malaysia 2013

8. Rohini S.Hallikar, Shweta Kulkarni,M.Uttarakumari and K padmaraju, "Signal Enhancement Using Turbo Iterative Kalman Filter and DRNL with SSB Technique", International Conference on Advances in Recent Technologies in Electrical and Electronics ARTEE 2013, Bangalore, India, September 2013.(Paper accepted in ELSEVIER Track)
9. Prateek B.Swamy,Rohini S.Hallikar, M.Uttara Kumari, , "Enhancement of Speech Signals corrupted by Impulsive Noise Using Wavelets and Adaptive Median Filtering", 2013,IEEE International Conference on Signal Processing, Computing and Control, Shimla, Himachal Pradesh, India, September 2013,Published by IEEE
10. Rohini S Hallikar, Uttara Kumari and K Padmaraju, "Single sideband Encoder with Non-Linear Filter Bank using Denoising, for Cochlear Implant Speech Processor," second International Conference on Computer science, Engineering and Applications (ICCSEA 2012), New Delhi, India, May 2012, vol I,pp 725-734
11. Rohini S.Hallikar, Riyaz G, Dr.B.S.Kariyappa," An Improved Speech Enhancement Algorithm Based on Spectral Subtraction with Tapering Method for Non-Stationary Noise Environments "International conference on Electronics and Communication Engineering (ICECE)-2012, ISBN: 978-93-81693-29-2,Bangalore,India,May 2012.
12. Rohini Hallikar ,Ravi H Godi , Prashanthgoud Baddam, "Formal verification of DMA controller for Exhaustive CRC algorithm check," International Joint Conference on Emerging Intelligent sustainable Technologies (EISTCON-2012), organized by IRNET, Dayananda Sagara College of Engineering, Bangalore India., May 2012.

National conferences:

1. Rohini S.Hallikar, Shivani Munshi, "Electric Field Distribution in Electrode using PVDF for Cochlear Implant", paper presented in national conference on Power, Control, Communication and Instrumentation leading to sustainable technologies (NPCCI-15) at R.V.College of Engineering, 24-25 April 2015
2. Rohini .S. Hallikar, Swami Baswaraj, Prashant V. Joshi, Cyril Prasanna Raj. P,"Design and Comparative Analysis Of DWT Based OFDM Over FFT Based OFDM", 2nd National Conference on Networking, Embedded & Wireless Systems (NEWS-2012), organized by BMS College of Engineering, Bangalore, India, August 2012
3. Rohini. S. Hallikar, Swami Baswaraj, Prashant V. Joshi, Cyril Prasanna Raj. P, "Performance Analysis of DWT Based OFDM for High Frequency Applications", Proceedings of National conference on Recent Advancement in engineering, NCRAE, SETI, Panahala, Maharashtra, 23rd June 2012, vol 4, 978-93-82062-41-7, pp.282-286
4. Rohini S Hallikar, Uttara Kumari and K Padmaraju, "Single Sideband Encoder With Non-Linear Filter Bank for Music Encoding In cochlear Implant Speech Processor", 4th IETE Conference on RF & Wireless(ICON RFW-11),jointly organized by IETE Bangalore Center and R.V. College of Engineering, held at R V College of Engineering, Bangalore, India, Oct 2011.
5. Rohini S. Hallikar, Sujatha D. Badigar, Jayanthi P.N and Chethana G, "Women Entrepreneurs Making Their Mark", National Conference on Relevance of Sustainable technology for Growth of Women(RSTGW), organized by Department of MCA, R.V.College of Engineering, Bangalore, India, May 21st 2011.
6. Rohini S. Hallikar, Sriya R, Sandeep Singha, Rakesh R, Girimalla, "A Comprehensive study on the use of various methods related to CI and Simulations on PDA for mobile platforms", National Conference, Telecommunication Department, RV College of Engineering, Bangalore, India, May 2011.

7. Rohini S. Hallikar, K.A.Nethravathi, "Secure Data Transmission using VPN & firewall implementation", National conference on Recent trends in Communication Engineering, Francis Xavier Engineering College, Tamil Nadu, India, 10 April 2010

Books/Book Chapters

1. Abhay Deshpande and Rohini S.Hallikar, *[Advancements in Engineering and Management]*, [Mangalam Publications], [2021].

Patents **[Filed / Published / Granted]**

1. Patent granted : patent Number:-359557, FLEXIBLE ARTIFICIAL BASILAR EPITHELIUM Issued Feb 25, 2021

R & Grants & Consultancy Projects

Ongoing & Completed Research Projects

- Nil

Ongoing & Completed Consultancy Projects

- Nil

Professional Memberships

- IEEE and ISTE Member

Awards & Recognitions

- Mentorship Award from TEXAS INSTRUMENTS, for mentoring project submitted to Texas Instruments Innovation Challenge India Analog Design Contest 2014. Project was among consolation prize winners of 365 shortlisted entries
- Felicitation and achievement prize by RSST trust on 26th January, 2015.
- Certificate of Appreciation from TEXAS INSTRUMENTS, for mentoring project submitted to Texas Instruments Innovation Challenge India Analog Design Contest 2015
- Awarded Certificate of Honor by ISTE-RVCE Chapter for obtaining Doctoral degree on Teacher's day 2022.

• Student Supervision

- Ph.D. Candidates: Nil
- M.Tech Students Guided: 11

- Undergraduate Research Mentees: 50

Professional Roles

- Editorial Board: [Nil]
- Chair/Committee Member/Reviewer: [Yes]
- Industry Advisor: [Nil]

Teaching

Core Courses: [VI and IV]

- [HS261TA] [Principles of Management and Economics]
- [HS248AT] [Universal Human Values]

Advanced/Lab Courses:

- Computer Network Protocols

Professional Roles

Responsibilities

- Academic: [CIE Coordinator for 3rd Year]
- Administrative: [Nil]

External Connect

- V.A Trapeznikov Institute of Control Sciences,
Moscow, Russia