Curriculum Vitae

Dr. Yerriswamy T.
Professor and Dean SW
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WOS ID: AGN-8022-2022

Education:

- Diploma in Electronics and Communication, DTE, Bangalore Karnataka
- B.E in Electronics and Communication Engineering from Gulbarga University, Gulbarga, Karnataka (2000) securing 76%
- M.Tech in Network and Internet Engineering, Visvesvaraya Technological University, Belagavi, Karnataka (2005) securing 78.1%
- PhD Visvesvaraya Technological University, Belagavi, Karnataka (2012). Title of thesis "Direction of Arrival Estimation using Antenna Array Signal Processing Techniques."

Experience:

- 24 years of teaching experience:
    - SJM Institute of Technology, Chitradurga (2000-2007) as Lecturer, Sr. Lecturer, and Asst, Professor
    - PD Institute of Technology, Hospete (2007 - 2014) Asst. Professor, Associate Professor and Professor, In-charge principal in the year 2014
    - KLE Institute of Technology, Hubballi (2014 - 2023), Professor and Head, Department of Computer Science and Engineering
    - KLE Institute of Technology, Hubballi (2024 - Till Date), Professor and Dean Student Welfare Officer.

Course Taught in last three years:

1. Artificial Intelligence
2. Cryptography
3. Microwave and Antennas
4. Machine Learning
5. Digital Design and Computer Organization

6. Python Programming
7. Electromagnetics
8. Artificial Intelligence and Machine Learning in SAMSUNG Innovation Campus

Pedagogy Implemented:

1. Project-Based Learning in Courses; Artificial Intelligence, Machine Learning, Cryptography, Python programming, Practiced during all the academic years
2. Student seminar for peer learning in Engineering statistics and linear algebra
3. Industrial expert talk on "Application of authentication protocols in data centers", by Mr. Ravindra Joshi, Ex-Consulting Architecture for Data Centers, USA. Adopted in the course; Cryptography during 2021-22
4. Industrial Visit to GMRT, Pune in the course Microwave and Antennas during 2022-23
5. Use of CST and HFSS for demonstration on Electromagnetic during 2023-24

Membership:

- ISTE Life Member LM47350
- IEEE Member 93230040
- Member: IEEE APS, IEEE SPS and IEEE MTTS
- IEI Member: M-1804434

Administrative Experience:

- BOS VTU Nominee at Googte Institute of Technology for 2024
- Dean Student Welfare at KLEIT, Hubballi, from 2024
- Head of Computer Science and Engineering, KLEIT, Hubballi, 2015-2023
- Member for VTU Board of Examiner during 2022-23.
- Special Invitee VTU Board of Studies CSE/ISE from 2019 - 2022
- Special Invitee VTU Board of Studies CSE/ISE from 2016 - 19
- Member LIC VTU during 2014-15, 2016-17, 2023-24
- IEEE NKSS (North Karnataka Sub-Branch) Execom member for 2020 - 21 and 2021 - 22
- Examination Dean at PDIT Hospet 2012-2013
- Head of Information Science and Engineering, PDIT Hospet 2012-13
- In-Charge Principal, PDIT Hospet (2014-15)
- Member for VTU Board of Examiner during 2013-14.
- Member for VTU Board of Examiner during 2015-16.

- Member BOS RLS Institute Dept of BCA in 2016.
- Visiting faculty, Department of CSE, M.Tech CSE, Dr M S Sheshagiri College of Engineering and Technology, Belgaum, 2017.

Roles and Responsibilities / Achievements:

1. Dean Student Welfare from Jan 2024
2. Heading Department of Computer Science and Engineering from 2014 to 2023, accredited from 2016.
3. NIRF nodal officer form 2018, and the institute is ranked in the band of 250-300 during the academic year 2020-21.
4. As head of the department, initiated activities with IEEE MTTS, Google Student Developers group, GitHub, Hackerrank, CodeChef and GateTutor for better learning environment to students.
5. Conducted frequent technical talks from industry and academic resource persons.
6. As head of the department initiated for internship activity with IIIT, Dharwad in the area of Quantum Computing, and Networking in the academic year 2020 - 21
7. As head of the department, initiated department signing MoU with Tattva Labs (Expired), Karnataka University, AmpWork (Expired), iPrime, CodeChef.
8. Mentored a project team that participated in SIH2020 and won first prize in the hardware section by solving the problem of last-mile connectivity. This problem was posed Ministry of Communication.
9. Mentoring six projects in SIH 2023. Four projects in SIH 2024
10. UG project titled Oil Spill Detection from Satellite Images was selected for State Level Seminar and Exhibition to be held at Visvesvaraya Technological University (VTU), Belagavi on 12th and 13th August 2022. The students are Ms. Pooja B Kittu, MS Priyanka B, Mr. Venkatesh R Mamdapur, Mr Vrushabh I Turamari.
11. As head of the department, initiated in-house product development at KLEIT, the projects are a Face recognition-based staff attendance system, Open elective selection platform, and a Timetable web application.
12. As head of the department, initiated AWS academic certification program and ORACLE university workforce development program.

Activities Coordinated / Conducted:

1. Student Development Program and Lectures Conducted
    1. Workshop on antennas, Sponsored by IEEE MTTS, 2023
    2. IOT Project Exhibition, 2023
    3. 24 Hour Hackathon in 2023

4. Two Day Workshop on Antenna Design, Simulation and Characterization and Benefits of Elevation to Young Professionals. Sponsored by IEEE MTTS, 2024
5. Introduction to DAAD, resource person, Suganya Tamalapadi, Regional Officer, DAAD IC Bangalore, 2024

2. Distinguished Lectures conducted
    1. Career in ISRO, by Dr Chandrakantha, Sci-F, RF Dept, ISRO, Bangalore, 2023
    2. From Engineering Electromagnetics to Electromagnetic Engineering, Dr Levent Sevgi, Professor, Atlas University, Istanbul, Turkey, 2023
    3. RF Integrated Circuits, Dr Bodhisatvasadhu, Scientist, IBM research, USA., 2023
    4. Authorship workshop, Dr Ashutosh Kedar, Sci-F, LRDE, Bangalore and Chair IEEE MTTS/APS 2024, 2024
    5. Portable RADAR System, Dr Changzhi Li, Texas Tech University, USA , 2024
    6. Maximum Power Transfer Efficiency of MIMO-WPT System, Dr. Qiaowei Yuan, Professor, Tohoku Institute of Technology, Japan, 2024
3. Convenor IEEE International conference on Intelligent Technologies (CONIT) 2021, 2022, 2023 and 2024
4. SPOC for SIH 2024.
5. Coordinator for FDP on Mathematics in AI during August 30 to September 03, 2021
6. Co-coordinator for workshop on Social Connect and Responsibility on 29 to 30 November 2022
7. Faculty Advisor
    1. Google Student Developers Club in 2022, 2023
    2. IEEE MTTS KLEIT SBC from 2022 - Till date. Received best chapter in 2023.
8. Coordinator for 6-Day ATAL Online FDP Program titled "Recent Trends and Innovation in High-Performance Computing for Industry and Academic Research, 6th to 11th January 2025. Received Grants of Rs 100000

Continuous Learning:

1. One Week FDP on " Exemplary Practices in Teaching-Learning and Education of Courses in Computer Science and Information Technology", Jointly organized by Visvesvaraya Technological University, Belagavi, Karnataka and IIIT Allahabad from 3rd July 2020.

2. IEEE Workshop on “Microwave and Antenna Applications in 5G” from 8th -13th Dec 2020, jointly Organized by AP-MTT Chapter Bangalore and IEEE Bangalore Section.

3. ATAL FDP on "Quantum Computing" from 19 July 2021 to 23 July 2021.

4. Coursera Courses Completed:

    a. Neural Networks and Deep Learning

b. Advanced Machine Learning and Signal Processing

9. One day workshop on "Future Directions of Quantum Information Processing, on 15 July 2024 at IIIT Dharwad

Consultancy:

1. Porting of Depot Computer system to Oracle 14i version for NWKSRTC total project cost is 65,000. I played the role of team lead - the project was COMPLETED

Research:

- *Ph.D. Thesis:* Direction of Arrival Estimation Using Array Signal Processing Techniques
- Research Area: Antenna Array Signal Processing, MIMO, Spectrum sensing

Research Guidance:

1. Ravi S Hosamani - Estimation of CSI in MIMO
2. Praveen H L - Antenna array topology for 5G

Grants Received:

- Coordinator AICTE SPICES Rs 1,00,000 /- for academic year 2022-23.
- IEEE MTTS SBC 1000 Dollars in 2022.
- VTU workshop grants Rs. 20,000/- during 2022-23 for conducting a workshop on "Social Connect and Responsibility".
- IEEE MTTS SBC 1500 Dollars in 2024.
- AICTE ATAL FDP grants of Rs 1 Lakh in 2024.
- Grant of Rs 26930 from IEEE Bangalore Section for Workshop on Antenna Design, Simulation and Characterization and Benefits of Elevation to Young Professionals.

PhD Guided:

1. Chitra, "Address Anonymity and Data Security in Multi-Hop Multicast Wireless Sensor Networks",
2. Venu Madava, "Tracking the Direction of Arrival Estimation of Moving Targets using Array Signal Processing Techniques."

Reviewer:

1. Circuits, Systems & Signal Processing
2. IET Radar, Sonar & Navigation.
3. IEEE International Conferences

Publications:

National Conference: 04

National Journals: 00

International Conference: 11

International Journals: 15

Book Chapter: 01

1. Yerriswamy T. and S. N. Jagadeesha, “SD-CMA and OCMA adaptive arrays”, NCISD2006, MIT, Manipal.
2. Yerriswamy T and S. N. Jagadeesha, “Constant Modulus beamforming algorithm for Application in cellular base station”, NSCPC 2007, JNNCE, Shimoga.
3. Sandhya and Yerriswamy T., “Complex Gradient operator for minimizing MSE”, NSCPC 2007, JNNCE, Shimoga
4. Ramesh Bayli, Parvathi Kadli and Yerriswamy T., “Comparison of TCP-Reno, TCP-Vegs and TCP-Westood protocols”, NCETN 2008, PDIT, Hospet.
5. Yerriswamy T. and S. N. Jagadeesha, Fault Tolerant Matrix Pencil Method for Direction of Arrival Estimation, Signal Image Processing : An International Journal, Vol. 2, No. 3, pp. 42 - 46, 2011.
6. Yerriswamy T. and S. N. Jagadeesha, IFKSA-ESPRIT - Estimating the Direction of Arrival under the Element Failures in a Uniform Linear Antenna Array, ACEEE International Journal on Signal and Image Processing, Vol. 3, No. 1,pp. 42 - 46, 2012.
7. Yerriswamy T. and S. N. Jagadeesha, Joint Estimation if Azimuth and Elevation Angles using Incomplete Data generated by a Faulty Antenna Array, Signal and Image processing : An International Journal, Vol. 3, No. 6, pg. 99-114, 2012.
8. Yerriswamy T. and S. N. Jagadeesha, Comparison of Direction of Arrival Estimation Techniques in the Presence of Uncorrelated and Correlated Signals, Proc. Int. Conf. on Info. Processing, pp. 361 - 379, August, 2009.
9. Yerriswamy T., S. N. Jagadeesha and Gudino L.J., Expectation Maximization Matrix Pencil Method for Direction of Arrival estimation, Proc. 7th International Symposium on Communication Systems Networks and Digital Signal Processing (CSNDSP), UK, pp. 91 - 95, July, 2010. **(Scopus)**
10. Gudino, L.J., Rodrigues J.X., Jagadeesha S.N. and Yerriswamy T., Synthesis of Adaptive Interpolated Beamformer, Proc. 7th International Symposium on Communication Systems Networks and Digital Signal Processing (CSNDSP), UK, pp. 101 - 105, July, 2010. **(Scopus)**
11. Yerriswamy T. and S. N. Jagadeesha, IFKSA-ESPRIT - Estimating the Direction of Arrival under the Element Failures in a Uniform Linear Antenna Array, Proc. of Int. Joint Colloquium on Emerging Technologies in Computer Electrical and Mechanical 2011, pp. 24 - 28, September, 2011.

12. Yerriswamy T. and S. N. Jagadeesha, Direction of Arrival Estimation using a Sparse Linear Antenna Array, ACEEE International Journal on Communications, Vol. 3, No. 3, Nov 2012.

13. Venu Madahava M, S. N. Jagadeesha and Yerriswamy T., A Comparative Study of DOA Estimation Algorithms with Application to Tracking using Kalman Filter, Signal and Image processing : An International Journal, Vol. 6, No. 6, pg. 99-114, 2015.

14. Chitra Rajarama, Jagadeesha S. N. and Yerri Swamy T, End to End Route Anonymity in a Multi-hop Wireless Sensor Network, 2017 2nd International Conference on Computational Systems and Information Technology for Sustainable Solution (CSITSS).

15. Padma Raghappanavar , Dr.Yerriswamy T, Social Media Analytics for Small, Medium Enterprises, 7th International Conference on Research Trends in Engineering, Applied Science and Management (ICRTESM-2017), Mahratta Chamber Of Commerce Industries & Agriculture, Tilak Road, Pune, Maharashtra.

16. Chitra Rajarama, Jagadeesha Narasimhamurthy Sugatoor and Yerri Swamy T, Proxy Re-encryption using Rectangular Integer Matrix Keys, 2017 International Conference on Advances in Computing, Communications and Informatics (ICACCI) **(Scopus)**

17. M Venu Madhava, SN Jagadeesha, T Yerriswamy, An analysis of the Kalman, extended Kalman, uncented Kalman and particle filters with application to DOA tracking, Signal & Image Processing : An International Journal (SIPIJ) Vol.8, No.6, December 2017

18. Chitra Rajarama, Jagadeesha Narasimhamurthy Sugatoor and Yerri Swamy T, Di.e-Hellman Type Key Exchange, ElGamal Like Encryption/Decryption and Proxy Re-encryption Using Circulant Matrices, International Journal of Network Security, Vol.20, No.4, PP.617-624, July 2018,

19. Shridevi D Kadlaskar and Yerriswamy T., Rural Health Data Analysis of Epidemic Disease, International Journal of Engineering Research & Technology (IJERT), ICRTT - 2018 Conference Proceedings, Special Issue - 2018.

20. Chitra Rajarama, Jagadeesha Narasimhamurthy Sugatoor , Yerri Swamy T, Random routing scheme with misleading dead ends, International Journal of Electrical and Computer Engineering, vol 9, No. 5, 2019. **(Q3 Scopus)**

21. Venu Madhav M, S N Jagadeesha and Yerriswamy T., An Analysis of LMS, NLMS and RLS Filters with Application to DOA Tracking, International Conference on Innovative Mechanisms for Industry Applications, ICIMIA 2020, 5-7 March 2020, Bangalore. **(Scopus)**

22. Ravi Hosamani, Shridhar Devamane, T Yerriswamy, and Shreya Bagalwadi, Deep Learning Based Human to Human Interaction Detection Using -Wireless Fidelity", Chapter 2 New Trends in Disruptive Technologies, Tech Ethics and Artificial Intelligence, Springer, 2021. **(Scopus)**

23. Yerriswamy T., Praveen H .L, Puneeth Kumar T R and Ravi Hosamani, N258 Frequency Band Circularly Polarized Corner Perturbated Microstrip Patch Antenna, 2022 2nd Asian Conference on Innovation in Technology (ASIANCON), Pune, India. Aug 26-28, 2022. **(Scopus)**

24. Ravi Hosamani and Yerriswamy T, Deep Learning-Based CSI Estimation Using Synthetic Dataset, 2022 IEEE International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE), 23-24 April 2022. **(Scopus)**
25. Ravi Hosamani and Yerriswamy T, CSI based Performance Investigation of Single Cell - Multi user MaMIMO System, 2022 2nd Asian Conference on Innovation in Technology, Pune, India. Aug 26-28, 2022. **(Scopus)**
26. Mr. Kandi Gururaja Rao, Mrs. H. M. Shamitha, Dr. Yerriswamy T., Mr. Venumadhava M., Dr. Vijaya Kumar A. V., Revamp of Natural Language Processing using Reinforcement Learning, Neuro Quantology, October 2022, Volume 20, Issue 13, Page 1286-1292, doi: 10.14704/nq.2022.20.13.NQ88163 **(Scopus, Q3)**
27. Ravi Hosamani, Supriya P, Yerriswamy T, Iterative Lmmse Detection And Machine Learning Algorithm Based Optimized Capacity For Mimo System, GIS Science Journal, Vol 10, No. 3, Page 752 - 756, 2023, DOI:20.18001.GSJ.2022.V10I3.23.40856 **(Scopus, Q4)**
28. Amit K S and Yerriswamy T, Mitigation of Byzantine attack using LSP algorithm in CR Networks through Blockchain Technology, I.J. Wireless and Microwave Technologies, 2023, 6, 32-38 , DOI: 10.5815/ijwmt.2023.06.04.
29. Ravi Hosamani and Yerriswamy T, Channel Estiamtion in MIMO OFDM Systems With Tapped Delay Line Model, International Journal of Computer Networks and Communications, Vol 15, Np. 6, Nov 2023, pp. 97-113, DOI: 10.5121/ijcnc.2023.15605. **(Scopus, Q4)**
30. Praveen H L, Yerriswamy T, Puneeth Kumar, Shambulinga, High Gain Circularly Polarized Metasurface Antenna for NR257 Band Millimeter-Wave 5G Communication, Indonesian Journal of Electrical Engineering and Computer Science, Vol 37 No. 2, 2024, DOI: http://doi.org/10.11591/ijeecs.v37.i2.pp867-877 **(Scopus Q3)**
31. Ravi Hosamani and Yerriswamy T, Enhancing Performance in Physical Activity Monitoring: Leveraging Wi-Fi Channel State Information (CSI), SN Computer Science, 5:1039, 2024, https://doi.org/10.1007/s42979-024-03422-y (ACCEPTED) **(Scopus Q2)**

Societal Activities:

1. Assisting as instructor in Tinkering Lab for high school students at Bommai Government school, Gokul, Hubballi.

References:

1. Dr. S N Jagadeesha, jagadeesha_2003@yahoo.co.in, 9916104383
2. Dr. B S Anami, Registrar, KLE Technological University, Hubballi, anami_basu@hotmail.com, 9880802647
3. Dr. K S Shridar, HOD, Department of CSE, UBDT College of Engineering, Davangere, ks.shreedihara@gmail.com, 9448009306