

Profile

Dr. Arathi R Shankar, Ph.D

Designation : Associate Professor, PG Studies, Department of Electronics & Communication, BMSCE ,B'lore

Professional Experience: 25+years of Teaching experience

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Academic Background: Ph.D (2015) in Wireless Communication from Visveswaraya Technological University , Karnataka

M.E. (1999) in Electronics from Bangalore University

B.E. (1990) in Telecommunication from Bangalore University

Areas of interest:

- Wireless communication
- Mobile Networks
- RF circuits and System Design
- Communication System
- Antenna System Design
- Network Security

PhD Guidance :

One full time and four part time Research scholars pursuing under VTU

Master's Project guidance : Thirty five students

Consultancy Activities :

“Verification & Validation Platform for Motor Condition Monitoring Services”, Consultancy project in collaboration with ABB worth 3.5 Lakh.

Other Academic activities:

- Co- convener for the first National Conference NEWS 2010 from the Department of Electronics & Communication Engg
- Invited member BOE for M.Tech 2017 examination at Dayanand Sagar College of Engineering Blore.
- Member Women's Cell BMSCE.
- Program coordinator for M.Tech Digital Communication from the period 2005 to 2015
- Deputy Chief Superintendent for VTU Post graduate examination
- Feedback coordinator for M.Tech programs of the Department.

Grants fetched:

- Principal Investigator for Infrastructure Improvement of RF & Wireless Communication Lab at BMSCE, Bangalore sponsored by Vision Group Of Science & Technology , Dept of IT&BT, Govt of Karnataka .20 Lakhs (2010 -2012).
- Team member for TEQIP II sponsored Advanced Communication Lab at BMSCE worth 40Lakhs 2013-2014
- Team member for BMSCE – Keysight co-funded Advanced Communication Lab at BMSCE worth 2.5 crore 2014-2015.

Publications

- 22 International Journal papers in peer reviewed, scopus indexed journals
- 11 International Conference papers
- 2 National Conference papers

List of Publications

Journal Publications

1. Arathi R. Shankar, Adarsh Pattar, V Sambasiva Rao, “ Qualitative Analysis of QoS parameters at the Layer 1 and Layer 2 of Mobile WiMAX 802.16e” International Journal of Wireless & Mobile Networks (IJWMN), vol 4 issue 2 ISSN: 0975[online], 0975-4679[Print], April 2012, pp69-82.
2. Arathi R. Shankar, Adarsh Pattar, V Sambasiva Rao, “ Performance Improvement of Mobile WiMAX Physical Layer using Receiver Diversity Techniques” International Journal on Electrical, Electronics and Telecommunication (IJEE)ISSN:2051-3240, vol 44,issue 1,January 2013, pp1103-1106.
3. Arathi R. Shankar, Raghavendra.G, Nithya Kamari R, Dinesh Bhagat, Prabhu Raddy, “Analysis of Mobile WiMAX 802.16e Physical Layer Performance for Multimedia Communication” Special Issue of International Journal of Computer Applications(IJCA),(0975 – 8887), Feb 2013,pp32-35.
4. Arathi R. Shankar, Prabhu Raddy and V. Sambasiva Rao “Efficient Routing Protocol for Hand over Delay Minimization in Mobile WiMAX using Concurrent Scanning” International Journal of Computer Applications, vol 68, issue 22, April 2013, pp 16-21.
5. Arathi R. Shankar, Raghavendra.G , V. Sambasiva Rao,“ Analysis of Mac to Mac Video Streaming over Mobile WiMAX 802.16e” International Journal of Advances in Engineering & Technology (IAET), vol 6, issue 2, May 2013,pp 668-677.
6. Arathi R. Shankar, Prabhu Raddy, V Sambasiva Rao, “Concurrent Scanning for High Quality Hand Over Support in Mobile WiMAX Networks” International

Journal of Computers & Technology, (IJCT), vol 10, issue 2, ISSN 22773061, Aug 2013, pp1302-1316.

7. Arathi R. Shankar, Raghavendra.G, V. Sambasiva Rao, “ HARQ Implementation for Efficient MAC to MAC Video Streaming over Mobile WiMAX” International Journal of Management & Information Technology, vol. 5, issue 1, ISSN 2278-5612, Aug 2013, pp 455-469.
8. Arathi R. Shankar, Akkamahadevi M.B. and V. Sambasiva Rao, “QoS Performance Analysis of different Hand Over Mechanisms in WiMAX Femtocell Network”, International Journal of Current Engineering and Technology, special issue 1, ISSN 2277 – 4106, Sep 2013, pp308-311.
9. Sridhara R, Arathi R. Shankar, Prof. V Sambasiva Rao, “A Novel Decision Algorithm for Vertical Handoff between UMTS and WiMAX” Scholars Journal of Engineering and Technology, SJET, ISSN: 2321-435X, vol 1, issue 4, Oct 2013, pp251-256
10. Hema S Meharwade, Veena S, Arathi R Shankar, “ Joint encryption/watermarking based on Arnold cat map and DCT”, International Journal of Software & Hardware Research in Engineering, Vol 3, Issue 3, March 2015 , ISSN-2347-4890.
11. Viswanatham Subbaiah , Arathi R Shankar, Bhargav Raman S, “ A Novel Approach for Key Rehabilitation using Modified WEP Algorithm for VANETs”, International Journal of Advanced Research in Computer and Communication Engineering in vol4,issue 4 , April 2015, ISSN (Online) 2278-1021,pp 523-525
12. Akkamahadevi M B, Dr. Arathi R Shankar, “A Survey on Different Handover Mechanisms in the LTE Networks”, International Journal of Electrical Electronics & Computer Science Engineering,Special Issue - NEWS 2016 | E-ISSN : 2348-2273 | P-ISSN : 2454-1222,pp 39-42.
13. R. Sindhuja, Dr. Arathi R Shankar, “ A Survey on VLC Based Massive MIMO-OFDM for 5G Networks” International Journal of Electrical Electronics & Computer Science Engineering,Special Issue - NEWS 2016 | E-ISSN : 2348-2273 | P-ISSN : 2454-1222,pp43-46 .
14. Ashish U K, Arathi R Shankar, Sagar Pai, Suresh Anguru, “Novel DPI Technique to Decode Secret Information for Network Security” International Journal of Electrical Electronics & Computer Science Engineering,Special Issue - NEWS 2016 | E-ISSN : 2348-2273 | P-ISSN : 2454-1222,pp127-129.
15. Ashish Gupta, Dr. Arathi R Shankar, A.N Shivaram, “Development of a L-Band Corrugated Horn Feed for a Doubly Curved Antenna” International Journal of Electrical Electronics & Computer Science Engineering,Special Issue - NEWS 2016 | E-ISSN : 2348-2273 | P-ISSN : 2454-1222,pp156-159.
16. C N Santosh Kumar, Chelli Jagadeeswara Rao, Arathi R Shankar, R Kiran, “Modelling of Underwater Acoustic Channel properties” International Journal of Electrical Electronics & Computer Science Engineering,Special Issue - NEWS 2016 | E-ISSN : 2348-2273 | P-ISSN : 2454-1222,pp171-174

17. Ashish U K, Dr. Arathi R Shankar, "Measurement of power quality disturbances" International Journal of Engineering Development and Research © 2015 IJEDR , Volume 3, Issue 4,| ISSN: 2321-9939,pp840-847
18. Saniya Aleem, Dr. Arathi R Shankar, " QoS Analysis of MIMO-NOMA for Uplink Transmission using Successive Bandwidth Division" International Research Journal of Engineering and Technology (IRJET), Volume: 04 Issue: 05 | May -2017
19. Chandan B S, Dr. Arathi R Shankar, Gayetri, "Analysis of MIMO Performance for 5G" Journal of Telecommunication Study, Volume 3 Issue 3,2018.
20. Namitha M. Haveri, Arathi R. Shankar, "Performance Analysis of Maximal Ratio Combining with FBMC for 5G" Journal of Telecommunication Study, Volume 4 Issue 2,2018.
21. Lekhashree K S, 2Gayetri, 3Arathi R Shankar, "QoS Analysis for 5G Networks" Journal of Electronic Design Engineering, Volume 4 Issue 2,2018.
22. R. Sindhuja, Dr. Arathi R Shankar, "PAPR reduction in SCFDM based Massive MIMO system using Binary Crow Search Algorithm for Visible Light Communication in 5G Network."

Conference Publications past 2010

1. Arathi R. Shankar, Adarsh Pattar, Suthikshn Kumar "QoS Provisioning for Mobile WiMAX", ISBN No 978-81-921929-0-1, International Conference on Frontiers of Computer Science, India, Aug 7th -9th, 2010.
2. Arathi R. Shankar, Poonam Rani, Suthikshn Kumar, "An Analytical approach to Qualitative aspects of WiMAX Physical Layer" ,978-0-7695-4326-0/10 @2010 IEEE DOI 10.1109/VCON 2010, Second Vaagdevi International Conference on Information Technology for Real World Problems, India 9th-11th December 2010.
3. Arathi R. Shankar, " Implementation of Zigbee network to wireless telecommand system for Satellite communication using FPGA" , Proceedings of the National Conference on Frontiers of Computer science , India 2011.
4. Arathi R. Shankar, Adarsh Pattar, V Sambasiva Rao," Mobile WiMAX Performance improvement using MRRC scheme for Real time applications" Emerging Research in Electronics, Computer Science and Technology, lecture Notes in Electrical Engineering 248, DOI: 10.1007/978-81-322-1157-0_58@ Springer India 2014.
5. Hema S Meharwade, Veena S, Arathi R Shankar, "Real time video ncrption/watermarking algorithm for MAV wireless link security" National conference on advancements in Information Technology(NCAIT) May 5th 2015, JSS Academy of Technical Education , Bengaluru.

6. Pavithra, Arathi R Shankar, “ Millimeter wave based Outdoor Propogation”, CSIR sponsored 5th National Conference on Design Innovations for Compute – Communicate-Control on 26th & 27th April 2017 , MVJ College of Engineering , Blore
7. Sindhuja Rajesh, Dr Arathi R Shankar, "Performance analysis of LEDs in MIMO - OFDM based VLC indoor communication", 3rd International Conference on Trends in Electronics and Informatics (ICOEI 2019) ISBN : 978-1-5386-9439-8, SCAD College of Engineering and Technology, Thirunelveli,23rd-25th April2019.
8. Sindhuja Rajesh, Dr Arathi R Shankar, “A MIMO – OFDM System Implementation using Visible Light Communication” International Conference on Photonics, Communication and Signal Processing Technologies (ICPSPCT), M S Ramaiah University of Applied Sciences ,Bangalore, July 18-20 2019

Conference publications prior 2010

1. Arathi R Shankar, Rajeshwari M Hegde, “ GSM and GPS based Fleet Management Systems, NCICC-07, Second International Conference on Innovations and Computing, Jan 2007.
2. Jayanthi K Murthy, Arathi R Shankar, “ ZigBee on the road to Future”, Proceedings of National Conference On Emerging Trends in Electronics and Telecommunications, April 2007 ,pp 200-203
3. Jayanthi K Murthy, Arathi R Shankar, Rajeshwari M Hegde, “ Dedicated Short Range Communication For Collision warning System, Proceedings of second International conference on Embedded Systems, Mobile communications and Computing, ICEMC Aug 2007,pp 115-120.
4. Arathi R. Shankar, Rajeshwari Hedge, “WiMAX on the road to Future”, IET International Conference on Wireless, Mobile and Multimedia Networks, 978-0-86341-887-7 January 2008.
5. Arathi R. Shankar, “ QoS support to achieve Seamless Mobility using 802.16e”, Proceedings of Third Innovative Conference Embedded Systems, Mobile Communication and Computing (ICEMC2) 2008, India, August 2008.