




# SRM Valliammai Engineering College

SRM Nagar, Kattankulathur-603203, Kancheepuram District, Tamil Nadu

TEL : 044 - 27454784 / 726, FAX : 044 - 27451504

## Department of Electronics and Instrumentation Engineering

### Personal Details

<b>Name:</b>	UMAMAHESWARI.R		
<b>Designation:</b>	Assistant Professor (O.G)		
<b>Educational Qualification:</b>	B.E, M.E, Ph. D		
<b>Experience:</b>	Teaching: 11 Years 8 months	Industry: 2 Years	
<b>Area of Specialization:</b>	Wireless Communication		
<b>Date of Joining:</b>	20.06.2016		
<b>Email ID:</b>	umaece82@gmail.com		
<b>Contact Numbers:</b>	044- 27454784	<b>Extn: 8183</b>	

### Educational Details

S.No	Degree	Branch/Specialization	Institution / University	Year
1	B.E.	Electronics & Instrumentation Engineering	Madras University	2004
2	M.E.	VLSI Design	Anna University	2011
3	Ph. D	Information and Communication Engineering	Anna University	2017

### Professional Society Memberships

1. Life Number of ISTE
2. Member of IAENG
3. Member of Indian Science Congress

### Publication Details

#### Journals

1. Umamaheswari.R, "Cluster" Natural Volatiles & Essential Oils, Vol.8, Issue 6, Pp. 819-828, Oct 2021.
2. Tribhuwan Kumar, Digvijay Pandey, R Umamaheshwari , Book chapter in Machine Learning and IoT for Intelligent Systems and Smart Applications" titled "Development of an Agent-Based Interactive Tutoring System for Online Teaching in School Using Classter", CRC Press, Taylor and Francis, 2021
3. Ranjana Ray, Moumita Pal, R Umamaheswari, Ishita Banerjee, Book chapter in Machine Learning and IoT for Intelligent Systems and Smart Applications" titled "Machine Learning Based Micro strip Antenna Design in Wireless Communications" CRC Press, Taylor and Francis, 2021
4. Umamaheswari. R, Chitra.S, Kavitha.D, "Reliability analysis and dynamic maintenance mode based on fuzzy degradation approach", Soft Computing, October 2020
5. Dr. R. Umamaheswari, Ms.M. Ramya Princess and Dr.P. Nirmal Kumar, "Improved whale optimized MLP Neural Network based learning mechanism for Multi-user detection in MIMO communication systems", Journal of Circuits, systems and computers, March 2020.
6. Dr.R. Umamaheswari & Ms.M. Ramya Princess, "Performance Analysis of Ad-hoc Routing Protocols" International Journal of Electronics, Communication & Instrumentation Engineering

Research, Volume-9, Issue-1, 2019.

7. Dr.R. Umamaheswari, Ms.M. Ramya Princess and Dr.P. Nirmal Kumar, "Performance Analysis of SISO-OFDM Architecture for Wireless Applications using VLSI Technology" International Journal of Scientific Research, Volume-5, Issue-3, 2019.
8. Umamaheswari. R, Dr.P. Nirmal Kumar, "An FPGA Implementation of FSM based 2-step interleaver for 3G-LTE turbo codes", Journal of computational and theoretical Nano science, Vol .14, No.3, pp.1288-1293, March 2017.
9. Umamaheswari. R, Divyabharathi.C, "Needed recursive thinking for an engineer", Imperial Journal of Interdisciplinary Research", Vol.3, Issue-2, 2017.
10. Umamaheswari. R, Dr.P. Nirmal Kumar, "Optimized 512-point FFT with effective computational components for WLAN application", Vol.17, No.6, pp 2225-2238,2014, Information-An Interdisciplinary Journal -July 2014.
11. Umamaheswari.R, Dr.P. Nirmal Kumar, "Design of a MAP decoder for OFDM", National conference on emerging challenges in information and communication engineering, Asan college of engineering and technology, April 2014.
12. Umamaheswari.R, Dr.P. Nirmal Kumar, "A high speed low area ASIP based FFT processing", SNS college of engineering, National conference on communication and advanced research in electrical, electronics and robotics, March 2013.
13. Umamaheswari. R, Dr. T. R. Ganesh Babu, 'Implementation of DWT invisible watermarking algorithm using QR decomposition', Vol.1 (7), pp584-590, International Journal of Advances in Engineering, 2014.
14. Umamaheswari.R, Dr.P. Nirmal Kumar, "An efficient implementation of ML-M-SISO decoder for wireless application-OFDM", International Science Congress, Karunya University, ISBN: 978-93-83520-24-2, Vol. 1, Pp 150, December 2013

### **Conferences**

1. Attended International Conference conducted by International Journal of Engineering and Technology during February 2020.
2. Attended National Conference at Asan Memorial college of Engineering & Technology during April 2014
3. Attended National Conference at SNS college of Engineering during March 2013
4. Attended National Conference at Karpaga Vinayaga college of Engineering & Technology during March 2012
5. Attended International Conference conducted by International Research and development Organization during July 2011
6. Attended International Conference ICRATEMS 2011 at Vivekananda College of Engineering for women during March 2011

7. Attended International Conference IC4GWN 2011 at Kamban Engineering College during March 2011
8. Attended National Conference RAVE at Sudharshan Engineering College during February 2011
9. Attended National conference Kryfendoz 2K10 at Excel Engineering College during November 2010

### Research and Development Details

1. No. of Guest Lecture delivered: 2
2. No. of STTP/FDP coordinated: 1
3. No. of Guest lecture conducted: 1
4. No. of Workshop conducted: 1

### Patents Filed

- Editor for a book titled “Machine Learning and IoT for Intelligent Systems and Smart Applications” in CRC Press, Taylor and Francis, 2021
- Title: Integrated Portable solar charging and energy storage device, Application No. 201841006570A, Published in The Patent Office Journal, 09/2018 dated 02/03/2018
- Title: Self Sanitizing robot in toilet cleaning system, Application No. 201841032459 dated 30/08/2018
- Title: Novel Method Of Aqua Condensation Using Renewable Energy  
Application no: 202041006863 dated 18.02.2020

### Books Published

- Dr.S.Visalkashi and **Dr.R.Umamaheswari** authored a text book on Basic Electrical, Electronics, Measurements and Instrumentation Engineering-Volume 1. ISBN No: 978-81-935988-5-6 (R2017 B.E-ECE students)
- Dr.S.Visalkashi and **Dr.R.Umamaheswari** authored a text book on Basic Electrical, Electronics and Measurements Engineering, ISBN No: 978-81-935988-9-4 (R2017 B.E-CSE and IT students)
- Dr.S.Visalkashi and **Dr.R.Umamaheswari** authored a text book on Basic Electrical, Electronics and Instrumentation Engineering, ISBN No: 978-81-935988-9-3 (R2017 B.E-Mechanical students)

### Project proposal submitted

- Submitted Project Proposal to DST under the title “Intelligent Robot for Self-sanitizing robots” as Principal Investigator under SEED division for Science and Technology for Women
- Submitted Project Proposal to DST under the title “Integrated Compact Solar Energy Charger and Storage Device” as Principal Investigator under MEMS division.
- Submitted Project Proposal to DST under the title “Municipal solid Waste segregator” as Co-Principal Investigator under Technology Mission Division

- Submitted Project Proposal to DST under the title Surya Sakthi farming for arid regions in Tamilnadu
- Submitted Project Proposal to National Board of Higher Mathematics under the title Evolving framework on Mangal bhumi multifunctional program for barren land to support farming in India