

FACULTY PROFILE

Name : Dr.K.Sheela Sobana Rani
Designation : Associate Professor
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Area of Specialization : Wireless networks, VLSI

Total Experience : Academic :11.11 Years

Industry : Nil

Educational Qualification:

Degree	Branch / Specialization	College	University
Ph.D	Information and Communication Engineering	Anna University, Chennai	Anna University, Chennai
M.E.	Applied Electronics	Karunya University	Karunya University
B.E.	Electrical and Electronics Engineering	Sri Ramakrishna Engineering College	Bharathiar University

Experience Details:

S.No	Institution/Industry	Design.	Experience		Total Years & Months
			From	To	
1	SRI RAMAKRISHNA INSTITUTE OF TECHNOLOGY, COIMBATORE	ASSOCIATE PROFESSOR	05-06-2013	-	2 Years 8 Months
2	SNS COLLEGE OF TECHNOLOGY COIMBATORE	ASSISTANT PROFESSOR	03-06-2011	15-05-2013	1 Years 11 Months
3	RVS COLLEGE OF ENGINEERING AND TECHNOLOGY	ASSISTANT PROFESSOR	15-06-2008	30-05-2011	2 Years 11 Months
4	PARK COLLEGE OF ENGINEERING AND TECHNOLOGY	LECTURER	07-06-2007	14-06-2008	1 Year
5	AVINASHILINGAM UNIVERSITY	LECTURER	01-06-2006	02-06-2007	1 Years

6	KARUNYA UNIVERSITY	TRA	01-05-2005	30-05-2006	1 Years 1 Months
7	AVINASHILINGAM UNIVERSITY	LECTURER	03-06-2003	24-09-2004	1 Years 4Months
Total (as on Feb 2016)					11 Years 11 Months

Funded Projects:NIL

S. No.	Funding Agency	Topic	Amount Sanctioned in Rs.	Year of Sanction

Consultancy Work: NIL

S. No.	Organization/ Agency	Nature of Work	Amount in Rs.	Year

Patents (Specify the details): NIL

Publications :

Journals : 19

1. Published a paper titled "Performance Evaluation of Co-operative MIMO Network Based on Ant Colony Optimization" in Journal of Computer Applications, Vol.3 No.1, p.18, 2010
2. Published a paper titled "A Fuzzy Based Optimization for Routing in Wireless Sensor Networks", in Journal of Applied Science Research, ISSN 1819-54X, Vol.8, No4, pp.2137-2142, 2012.
3. Published a paper titled "Multiobjective Sensor Node Deployment in Wireless Sensor Networks" in International Journal of Engineering Science and Technology, ISSN 0975-5462, Vol.4 No.4, pp.1262-1266 2012.
4. Published a paper titled "Energy Efficient Approach for Collision Avoidance in Wireless Sensor Networks" in Journal of Information Engineering and Applications, ISSN 2224-5782, Vol.2 No.3, pp.1-6, 2012.

5. Published a paper titled "Optimization in Heterogeneous Wireless Sensor Networks", in International Journal of Advanced Research in Technology, ISSN 6602-3127, Vol.1 No.1, pp.12-15, 2012.
6. Published a paper titled "Fuzzy Based Optimization for Power Management in Wireless Sensor Networks" in International Journal of Computer Applications ISSN 0975 – 888 Vol. 48, No.4, 2012.
7. Published a paper titled "Optimization Model for Sensor Node Deployment", in European Journal of Scientific Research, ISSN 150-216X, Vol.70, No.4, pp.491-498, 2012.
8. Published a paper titled "Space Vector Modulation based Total Harmonic Distortion minimization in Induction Motor", in International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering, Vol. 1, issue 1, April 2013.
9. Published a paper titled "SHEPWM inverter based zero sequence circulating current reduction" in CIIT International Journal of Digital Signal Processing, ISSN 0974-9705 February 2013.
10. Published a paper titled "Total Harmonic Distortion Minimization in Induction Motor using Space Vector Modulation Scheme", in International Journal of Computer Applications ISSN 0975 – 8887 Vol. 69, No.12, 2013.
11. Published a paper titled "An Integrated Prepaid Energy Meter using GSM", in International Journal of Industrial Electronics and Electrical Engineering ISSN (e) : 2347-6982, Volume-2, Issue-5, May, 2014.
12. Published a paper titled "A Prepaid Energy Meter for Efficient Power Management", in International Journal of Emerging Technology and Advanced Engineering, ISSN 2250-2459, Volume 4, Issue 3, March 2014.
13. Published a paper titled "LUT Based Dynamic Power Optimization using Dual VDD/Dual Frequency Controller", International Journal of VLSI System Design and Communication Systems, ISSN 2322-0929 Vol.02, Issue.04, June-2014, Pages: 0246-0249.
14. Published a paper titled "Maximum Power Point Tracking for Photovoltaic Optimization Using Seeker Algorithm", International Journal of Advanced Engineering Research and Science, ISSN 2349-6495 Vol.01, Issue.02, July-2014, Pages:06-09.
15. Published a paper titled "Low Power and Area Efficient Folded Architecture for Row Bypassing Multiplier Using FPGA", International Journal of Recent Advances in Engineering & Technology, ISSN (Online): 2347 - 2812, Volume-2, Issue -6, 2014.

16. Published a paper titled "Secure Energy Efficient Load Balancing Multipath Routing Protocol with Power Management for Wireless Sensor Networks", IEEE Explorer
17. Published a paper titled "A Secure RSA for data transmission in Wireless Sensor Networks", International Journal of Emerging Technology in Computer Science and Electronics, ISSN-0976-1353, Volume-13, Issue-4, March 2015.
18. Published a paper titled "A Secure Audio Encryption Algorithm Using Lifting Wavelet Scheme and Discrete Sine Transforms" International Journal of Applied Engineering Research, ISSN-0973-4562, Vol.10, No.29, May 2015.
19. Published a paper titled "Performance Analysis of SDH Network Management System using DWDM Technique" International Journal of Engineering Technology Science and Research, ISSN 2394 – 3386, Volume 2, Issue 11, November 2015

International Conferences: 15

1. Presented a paper on "Novel Routing Algorithms For wireless Networked Control Systems", International Conference at Karpagam College of Engineering, Coimbatore on 1st & 2nd Feb 2008.
2. Presented a paper on "Enhanced Ant Colony Based Algorithm for Routing in Mobile AdHoc Networks", International Conference on Innovative Research in Engineering and Technology at Park College of Engineering & Technology, Coimbatore on 12th to 14th Aug 2010.
3. Presented a paper on "Multiobjective Optimization for Deployment in sensor Networks", International Conference at RVS College of Engineering and Technology, Coimbatore on 14th to 16th July 2011.
4. Presented a paper on "Optimization in Heterogeneous Wireless Sensor Networks", International Conference on Advanced Computer Technology at J.K.K.N.College of Engineering and Technology, Erode on 29th & 30th July 2011.
5. Presented a paper on "An Energy Efficient Hybrid Code Combining Technique for Cluster-Based Co-operative Wireless Networks" in 4th International Conference on Computer and Electrical Engineering (ICCEE'2011) ISBN 978-0-7918-5984-1 pp.165-172 conducted by ASME Press at Singapore October 2011.
6. Presented a paper on "Optimal Mass Flow Meter using Virtual Technology", International Conference on Electrical Engineering and Applications conducted by IACSIT Press on 17th & 18th Dec 2011.
7. Presented a paper on "Reduction of ZSCC Using SHEPWM Inverters" International Conference on Innovative Research in Engineering and Technology at Park College of Engineering & Technology, Coimbatore on 3rd Jan 2013.

8. Presented a paper on "Reduction of Zero Sequence Circulating Current Using SHEPWM Inverters" International Conference on Innovation in Communication, Information & Computing (ICICIC'13) at Sasurie College of Engineering, Vijayamangalam on 9th Jan 2013.
9. Presented a paper on "Space Vector Modulation Based Zero-Sequence Circulating Current and THD Minimization with Parallel Inverters", International Conference on Advanced Computing, Machines and Embedded Technology at J.K.K.N.College of Engineering and Technology, Erode on 8th & 9th Mar 2013.
10. Presented a paper titled "An Integrated Prepaid Energy Meter using GSM", in International Conference on Electrical, Electronics and Communication Engineering organized by Institute of Research and Journals ISSN 978-93-82702-63-4 Vol., No., 9th Mar 2014.
11. Presented a paper titled "Secure Energy Efficient Load Balancing Multipath Routing Protocol with Power Management for Wireless Sensor Networks", International Conference on Control, Instrumentation, Communication and Computational Technologies at Noorul Islam University, Kumaracoil, on 10th and 11th July 2014.
12. Presented a paper titled "A VLSI Implementation of Hybrid Technique for Secure data transmission in Wireless Sensor Networks", International Conference on Recent Trends and Advancement in Information and Communication Engineering at Nehru Institute of Technology, Coimbatore on 27th March 2015.
13. Presented a paper titled "A Secure RSA for data transmission in Wireless Sensor Networks", International Conference on Advances in Emerging Technology at Jaya Engineering College, Chennai on 28th March 2015.
14. Presented a paper titled "Design of Point to Point Metro DWDM Network and Its Performance Evaluation", International Conference on Communication and Signal Processing, at Adhiparasakthi Engineering College, Melmaruvathur on April 2-4, 2015.
15. Presented a paper titled "Design of Metro DWDM Network and Its Performance Evaluation using Linear Topology", International Conference on Innovative Research in Engineering and Technology (iCIRET2015), at Park College of Engineering & Technology, Coimbatore on April 9-11.

National Conferences: 9

1. Presented a paper on "Fault Tolerant for FFT Processors", National Conference on Modern Trends in Electrical and Electronic Systems" at Government College of Engineering, Salem on 22nd & 23rd March 2006.
2. Presented a paper on "Fault Tolerant for FFT Processors", National Conference (Vikram sarabai space centre, Thiruvananthapuram) at Nooruul Islam college of Engineering & Technology, Kanyakumari on 27th & 28th March 2006.
3. Presented a paper on "Comparison of CDMA & DCT water making techniques", National Conference at Park College of Engineering & Technology, Coimbatore on 13th & 14th Sep 2007.
4. Presented a paper on "Routing in Adhoc Networks Using Minimum Connected Dominating Sets", National Conference at Coimbatore Institute of Engineering & Technology, Coimbatore on 7th & 8th Mar 2008.

5. Presented a paper on "Prevention of Black hole Attacks in MANETS", National Conference at Nehru Institute of Engineering & Technology, Coimbatore on 13th July 2008.
6. Presented a paper on "Modeling of a Fuel Cell Power Plant for Grid Interface", National Conference at PPG Institute of Technology, Coimbatore on 4th Mar 2013.
7. Presented a paper on "Fuzzy Based Optimization for Deployment in Wireless Sensor Networks", National Conference at Anna university Regional Centre, Coimbatore on 27th & 28th Mar 2013.
8. Presented a paper on "Optimization model for Sensor Placement in Wireless Sensor Networks", National Conference at Erode Sengunthar Engineering College, Erode on 9th May 2014.
9. Presented a paper titled "A Secure Audio Encryption Algorithm Using Lifting Wavelet Scheme and Discrete Sine Transforms" National Conference on Advances in Technology and Science (NCATS 2015), at Info Institute of Engineering, Coimbatore on April 16 & 17, 2015.

Books Published: NIL

Seminar, Conference, Workshop Organized:

S.No.	Title	Duration	Level (Intern./ National)
1	Latest Trends in Wireless Communication		National

Seminar, Conference, Workshop Attended:

1. Attended One day workshop on "Mobile Networking and Embedded System" organized by ECE Department, Government College of Technology, Coimbatore on 5th Oct 2007.
2. Attended Three day workshop on "Microcontroller Based Embedded System" organized by ECE Department, Government College of Technology, Coimbatore from 11th to 13th July 2007.
3. Attended One day workshop on "Network Simulator" organized by ECE Department, Park College of Engineering & Technology, Coimbatore on 10th OCT 2007.
4. Attended One day workshop on "Ingraining Research Attitude in Teachers" organized by ECE Department and Research Cell, Park College of Engineering & Technology, Coimbatore on 28th Aug 2008.
5. Attended One day workshop on "Latest Trends in Test and Measuring Instruments" organized by ECE Department, Park College of Engineering & Technology and Agilent Technology, Coimbatore on 16th June 2008.

6. Attended One day workshop on “LabVIEW Based Real Time Image Processing Applications” organized by ECE Department, RVS College of Engineering & Technology, Coimbatore on 17th Oct 2008.
7. Attended One day workshop on “Latest Trends in Hardware & Networking” organized by CSE & IT Department, RVS College of Engineering & Technology, Coimbatore on 7th Nov 2008.
8. Attended One day workshop on “Signals and Systems” organized by ECE Department, RVS College of Engineering & Technology, Coimbatore on 26th March 2009.
9. Attended One day FDP on “Introduction to Research & Research Skills” organized by ECE Department, RVS College of Engineering & Technology, Coimbatore on 6th July 2009.
10. Attended Two days workshop on “Research Applications in Wireless and VLSI Design” organized by ECE Department, DrMCET, Pollachi during 7th & 8th August 2009.
11. Attended Faculty Development Programme on “Electric Drives and Control ” organized by EEE Department, Anna University of technology, Coimbatore on 11th July to 16th July 2011.
12. Attended One day workshop on “Intelligent Information Systems and management”, RVS College of Engineering & Technology, Coimbatore on 14th July 2011.
13. Attended Two days workshop on “Simulation Tools –NS-2, Matlab, Verilog and Labview”, Vels University, Chennai on 13th & 14th Oct 2011.
14. Attended Two day workshop on “Particle Swarm Optimization & its Variants: Concepts & Basic Implementation in Matlab”, Anna University Regional Centre, Coimbatore on 21st & 22nd Feb 2013.
15. Attended AICTE Sponsored Two Week Faculty Development Programme on “Advancements in Cognitive Green Communication & Robotics Systems ” organized by ECE Department, Erode Sengunthar Engineering College, Erode on 18th to 31st Oct 2013.
16. Attended Faculty Development Programme on “Control Systems” organized by EEE Department, Anna University Regional Centre, Coimbatore on 17th to 23rd Dec 2013.
17. Attended Two weeks workshop on “Signals & Systems” from 2.1.2014 to 12.1.2014 conducted by Indian Institute of Technology, Kharagpur at Sri Ramakrishna Institute of Technology, Coimbatore.
18. Attended National Seminar on “Energy Conservation & Management”, organized by EEE Department, Anna University Regional Centre, Coimbatore in association with Petroleum

Conservation Research Association, Ministry of Petroleum & Natural Gas, Government of India on 23rd Jan 2014.

19. Attended Two days workshop on “Next Generation Wireless Technologies”, PSG College of Technology, Coimbatore on 7th & 8th Nov 2014.

20. Attended Two weeks workshop on “Control Systems” from 2.12.2014 to 12.12.2014 conducted by Indian Institute of Technology, Kharagpur at Sri Ramakrishna Institute of Technology, Coimbatore

21. Attended Two days workshop on “Network Security and its challenges” from 17.08.2015 to 18.08.2015 conducted by MIT, Chennai.

22. Attended Faculty Development Programme on “Mobile Computing” organized by CSE Department, Anna University Regional Centre, Coimbatore on 7th to 13rd Dec 2015.

Ph.D., Guidance / Supervisor ship: NIL

Name of Scholar	Course	Area of Research	Status

Guest Lectures Delivered:

Topic	Institution	Date(s)
Recent trends in Digital Electronics	SNS College of Engineering	19.10.2015
Digital Principles and System Design	SNS College of Engineering	07.04.2015
Digital Electronics	SNS College of Engineering	07.07.2014
Wireless Communication	J.K.K.N College of Engineering	17.01.2014

Membership in Professional Bodies:

1. ISTE(Indian Society for Technical Education)
2. IAENG (International Association of Engineers)
3. IACSIT (International Association of Computer Science and Information Technology)

4. SDIWC (Society of Digital Information and Wireless Communications)

Contributions to the Institution, Department and Society:

1. Internal Audit Committee Member
2. Women Empowerment Cell Co-ordinator
3. Electronics System Design and Digital Lab Incharge
4. NBA Programme Co-ordinator (PG)
5. Class Committee Chairperson
6. Academic Division Head (Electronics)
7. One of the members to identify the Industrial Expert Audit Panel

Awards and Recognitions: NIL