

K.S.R. COLLEGE OF ENGINEERING, TIRUCHENGODE – 637 215.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING FACULTY PROFILE



01. Name : Dr.R.POORNIMA
02. Designation : ASSISTANT PROFESSOR
03. Date of Birth : 30.05.1983
04. Date of Joining : 16.06.2008
05. Qualification & Designation :

	At the time of Joining	Now
Qualification	M.E	Ph.D
Designation	Lecturer	Assistant Professor

06. Specialization : Advanced Communication Systems

07. Area of Interest : Communication Systems

08. Experience & Promotion Details (Chronological):

S.NO.	Name of the Organization	Designation	Period	
			From	To
1	KSR College of Engineering	Assistant Professor	01.07.2009	Till date
2	KSR College of Engineering	Lecturer	16.06.2008	30.06.2009
3	Kings College of Engineering, Thanjavur	Lecturer	14.05.2007	30.04.2008
4	Sengunthar Engineering College, Tiruchengode	Lecturer	21.05.2006	09.05.2007

Total years of experience in academics (a)	Total years of experience in industry (b)	Total years of experience in others (c)	Total years of experience (X=a+b+c)	Date of joining & Total years of experience in present institution
13.11	Nil	2	15.11	16.06.2008 & 15.11

09. Publication Details:

	National Level*		International Level*	
	Journal(s)	Conference(s)	Journal(s)	Conference(s)
At KSRCE	-	04	13	11
Other Institutions	-	-	-	-

*-Annexure

10. Details of Proposal Submitted

Sl.No	Title of the Proposal	Funding Agency Details	Date & Duration	Status
1	Design of power theft detective system using IoT	TNSCST	13.09.2021 6 months	Not Sanctioned
2	Two days National seminar on Computer aided Breast Detection using Deep learning Algorithm	CSIR	17.01.2020 (2 days)	Regretted
3	Intelligent Garbage Separator	TNSCST	26.08.2019 6 months	Not Sanctioned
4	Detection of Exam Paper Leakage using Smart Locker System	TNSCST	29.08.2017 6 months	Completed
5	Preventing people from Hazardous gas in coal Mine	TNSCST	27.08.2015 6 months	Not Sanctioned

11. Details of Winter/Summer Schools Attended

Sl.NO	Name of the programme	Organized by	Duration
1	AICTE Training And Learning (ATAL) Academy Online Elementary FDP on Crafting and advancing Electronic Product Creation	AICTE	20.11.2023 to 25.11.2023
2	AICTE Training And Learning (ATAL) Academy Online Elementary FDP on Advanced Communication Systems- A Research Perspective	AICTE	09.08.2021 to 13.08.2021
3	AICTE –ISTE approved Orientation/Refresher Programme on “Recent Challenges in Teaching Pedagogy”	AICTE –ISTE	07.05.2021 to 13.05.2021
4	AICTE Training And Learning (ATAL) Academy Online FDP on Recent Trends on Cyber Security Domain	AICTE	05.07.2021 to 09.07.2021
5	AICTE Training And Learning (ATAL) Academy Online FDP on "Artificial Intelligence, machine Learning and Deep Learning"	AICTE	02.02.2021 to 06.02.2021
6	AICTE Training And Learning (ATAL) Academy Online FDP on “Productivity Enhancement”	AICTE	25.01.2021 to 29.01.2021
7	AICTE Training And Learning (ATAL) Academy Online FDP on	Kumaraguru College of Technology,	07.12.2020 to 11.12.2020

	"Augmented Reality (AR)/ Virtual Reality (VR)"	Coimbatore.	
8	One week Online Certificate course on Digital Teaching Techniques	ICT Academy	29.06.2020 to 04.07.2020
9	Online Faculty development Programme on Computer and Communication Networks	Sri Sai Ram Institute of Technology, Chennai	21.05.2020 to 27.05.2020
10	Online Faculty development Programme on Modern IoT technology tools & Design for real time applications	Sri Sai Ram Institute of Technology, Chennai	03.06.2020 to 09.06.2020
11	Faculty Development Training Programme on "EC 6602 /Antenna and wave propagation"	K.S.R. College for Engineering and Technology, Tiruchengode	27.11.2017 - 03.12.2017
12	Instructional Design and Delivery	KSR College of Engineering	08.09.2008 to 13.09.2008
13	Fundamentals of Electromagnetics	Amirta School of Engineering, Coimbatore	11.08.2008 to 21.08.2008

12. Details of Workshops/ Seminars Attended

Sl.No	Name of the programme	Organized by	Duration
1	5 day Lecture series on Future Antenna technologies on the topic Antenna for under water communication	IEEE APS chapter associated with Department of ECE, Kumaraguru College of Technology, Coimbatore	12.08.2020
2	5 day Lecture series on Future Antenna technologies on the topic Recent trends in Dielectric Resonator Antennas for Wireless Applications	IEEE APS chapter associated with Department of ECE, Kumaraguru College of Technology, Coimbatore	11.08.2020
3	Webinar on Quantum Cryptography	Sri Ramakrishna Engineering, Coimbatore	28.07.2020
4	Webinar on Cyber security	Department of ECE, K.S.R. Engineering College	14.06.2020
5	Webinar on recent trends in Cyber crime	Department of IT, St.Joseph's College of Engineering, Chennai	13.06.2020
6	Online 2 - Day Faculty development program on Game Pedagogy in Outcome based education	K.C.College of Engineering & Management Studies & Research, Thane	11.06.2020 & 12.06.2020
7	Webinar on Color image Processing	RVS College of Engineering and Technology, Coimbatore	06.06.2020
8	Webinar on the theme Gearing up for the job of tomorrow	ICT academy	05.05.2020
9	Webinar on the theme Employability skills for the future	ICT academy	05.05.2020
10	Workshop on J gate –An	Central Library, K.S.R. College	10.07.2019

	Electronic Gateway for Research	of Engineering, Tiruchengode.	
11	Short term Training Programme through ICT Mode on NBA Accreditation	National Institute of Technical Teachers Training and Research, Kolkata & KSRCE.	22.04.2019 to 26.04.2019
12	National Level Workshop on Data Science & Machine Learning with Python	Department of BCA, Ethiraj College for Women, Chennai	01.02.2019 & 02.02.2019
13	One day Workshop on Outcome based Education (OBE)	KSR College of Engineering, Tiruchengode.	01.11.2018
14	Workshop on Women Cyber security Research (WCR'18)	Centre for research and Innovation in Cyber Threat Resilience (CRICTR), Indian Institute of Information Management, Kerala	25.05.2018 & 26.05.2018
15	Workshop On Internet of Things –IBM Watson	K.S.Rangasamy College of Technology, Tiruchengode	01.03.2018
16	Workshop On ABET Accreditation	KSR College of Engineering, Tiruchengode	13.10.2017
17	Workshop on Internet of things: Challenges and Applications using Raspberry Pi Processor (IoT-CAR)	KSR College of Engineering, Tiruchengode	31.07.17 to 01.08.17
18	Two days Faculty Development Programme “ EC6502 –Principles of Digital Signal Processing”	KSR Institute for Engineering and Technology, Tiruchengode	15.06.17 & 16.06.17
19	ISTE sponsored workshop on Network Simulator-2	Department of ECE, KSR College of Engineering, Tiruchengode	02.02.2017 to 04.02.2017
20	One day Workshop on “Outcome Based Education (OBE) ”	KSR College of Engineering, Tiruchengode	17.09.16
21	National Level Seminar on Patent Filing in India and Other Countries	KSR College of Engineering, Tiruchengode	08.08.16
22	Hands on Training in Mobile Phone Servicing	KSR College of Engineering, Tiruchengode, in association with New Technology –Mobile Servicing and Training Institute, Coimbatore	12.08.16 & 13.08.16
23	National Level Workshop on Real Time signal & Image Processing using Xilinx Vivado System Generator	KSR Institute for Engineering and Technology, Tiruchengode.	25.02.2016 & 26.02.2016
24	ICMR sponsored National Seminar Emerging Tools to Analyze Brain Waves for Artificial Limb Technology	KSR College of Engineering, Tiruchengode.	06.11.2015 & 07.11.2015
25	International Level Workshop on Journal Paper Writing and Preparation of Winner Research Proposal	KSR College of Engineering, Tiruchengode.	19.08.2015 & 20.08.2015
26	Didactic Seminar on Cadence	PSG College of Technology,	24.06.2015

	OrCAD PSPICE & OrCAD PCB	Coimbatore.	
27	FDP on Embedded Systems with ARM-7 Microcontrollers	Nandha Engineering College, Erode	27.05.2015 & 28.05.2015
28	National Level Workshop on Blooms Taxonomy and Its Assessments	KSR College of Engineering, Tiruchengode.	20.03.2015
29	Writing Effective Research Paper(s) and Thesis	KSR College of Engineering, Tiruchengode.	19.07.2014
30	Computing Trends in Genetic Algorithms	Velalar College of Engineering & Technology, Erode.	22.01.2015
31	EC2302- Digital Signal Processing	Centre for Faculty Development, Anna University, Chennai.	18.06.2013 to 24.06.2013
32	Practical Insight into RF Antenna Design Through PCB Prototyping	KSR College of Engineering, Tiruchengode.	27.02.2013 to 01.03.2013
33	One day Workshop on Modeling and Simulation Laboratory	KSR College of Engineering, Tiruchengode.	27.12.2010
34	Seminar on Intellectual Property Rights	Anna University, Chennai & Ministry of Communication & Information Technology, New Delhi at Kings College of Engineering, Thanjavur.	10.01.2008

13. Details of Winter/Summer Schools/Workshops/Seminars organized:

S.No	Name of the programme	Sponsored by	Acted as	Duration	Coordinator
1	21 Days Master Class in Data Science	PanTech Learning	Coordinator	08.11.2023 to 02.12.2023	Dr.R.Poornima
2	AICTE Training and Learning (ATAL) Sponsored Virtual Faculty Development Program on Sensors Technology	AICTE	Co-coordinator	04.10.2021 to 08.10.2021	Dr.P.S.Periasamy
3	Webinar on Introduction to IoT and its applications	K.S.R. College of Engineering, Tiruchengode	Coordinator	27.06.2020	Dr.R.Poornima
4	Two days workshop on Embedded systems	K.S.R. College of Engineering, Tiruchengode	Co-coordinator	30.08.2019 & 31.08.2019	Dr.S.Karthikeyan
5	EC2302 - Digital Signal Processing	Centre for Faculty Development, Anna University, Chennai.	Co-Coordinator	18.06.2013 & 24.06.2013	Dr.P.S.Periasamy
6	TANGEDCO- Assistant Engineer Recruitment:2015-coaching class	KSR Polytechnic College, Tiruchengode.	Resource Person	26.01.2016	-

14. Details of the Subjects Handled (in KSRCE):

Sl. No	Academic Year	Semester	Name of the Subject	Class	% of Pass
1	2024-2025	ODD	Wireless Networks	IV ECE	--
2	2023-2024	EVEN	Transmission Lines and Wave guides	II ECE	--
		ODD	Wireless Networks	IV ECE	100%
3	2021-2022	EVEN	Linear Integrated Circuits	II ECE	92.5%
		ODD	Analog Communication Systems	III ECE	98.5%
4	2020-2021	EVEN	Digital Communication Systems	III ECE	100%
		ODD	Analog Communication Systems	III ECE	100%
5	2019-2020	EVEN	Transmission Lines and Wave guides	II ECE	100%
			Cryptography and Network Security	III ECE	
		ODD	Transmission Lines and Wave guides	III (ECE-A)	73.91%
			Transmission Lines and Wave guides	III (ECE-B)	97.62%
6	2018-2019	EVEN	Linear Integrated Circuits	II (ECE-A)	80.43%
			Linear Integrated Circuits	II (ECE-B)	88.24%
		ODD	Transmission Lines and Wave guides	III (ECE-A)	92%
			Transmission Lines and Wave guides	III (ECE-B)	100%
7	2017-2018	EVEN	Linear Integrated Circuits	II (ECE-A)	77.08%
			Digital Communication Systems	III (ECE-C)	82.86%
		ODD	Transmission Lines and Wave guides	III (ECE-B)	91.11%
			Mobile AdHoc Networks	II (M.E-CS)	100%
8	2016-2017	EVEN	Linear Integrated Circuits	II (ECE-B)	79.36%
			Digital Communication Systems	III (ECE-A)	85.29%
		ODD	Transmission Lines and Wave guides	III (ECE-B)	95.52%
			Mobile AdHoc Networks	II (M.E-CS)	100%
9	2015-2016	EVEN	Linear Integrated Circuits	II (ECE-B)	98.5%
			Multimedia Compression Techniques	I (M.E-CS)	100%
10		ODD	Transmission Lines and Wave guides	III (ECE-A)	92.98%
			Internetworking Multimedia	II (M.E-CS)	100%
11	2014-2015	EVEN	Linear Integrated Circuits	II (ECE-C)	82.14%
			Multimedia Compression Techniques	I (M.E-CS)	100%
		ODD	Transmission Lines and Wave guides	III (ECE-A)	79.6%
			Internetworking Multimedia	II (M.E-CS)	100%
12	2013-2014	EVEN	Linear Integrated Circuits	II (ECE-B)	94%
			Multimedia Compression Techniques	I (M.E-CS)	100%
		ODD	Transmission Lines and Wave guides	III (ECE-A)	72.72%
13	2012-2013	EVEN	Electromagnetic fields	II (ECE-B)	86.36%
			Embedded Analog Interfacing	I(M.E-EST)	100%
14	2011-2012	EVEN	Electromagnetic fields	II (ECE-A)	89.95%
			Multimedia Compression Techniques	I (M.E-CS)	100%
		ODD	Transmission Lines and Wave guides	III (ECE-A)	93.85%
			High speed Switching Architecture	II (M.E-CS)	94.44%

15	2010-2011	EVEN	Electromagnetic fields	II (ECE-A)	94%
			Multimedia Compression Techniques	I (M.E-CS)	100%
16	2009-2010	EVEN	Transmission Lines and Wave guides	III (ECE-A& B)	97%
					100%
17	2008-2009	ODD	Electromagnetic fields	II (ECE-A)	93%
			Embedded Control Systems	I (M.E-EST)	100%
16	2009-2010	ODD	Communication Theory	III(ECE-A&B)	91.4%
17	2008-2009	EVEN	Transmission Lines and Wave guides	II (ECE-A)	100%
			Electromagnetic fields	II (ECE-A)	100%

15. Additional Responsibilities:-

SL.NO	Details of Work	Work allotted by	Duration
01.	NPTEL Coordinator	Head of the Department	Dec 2017 to Till date
02.	NAAC coordinator	Head of the Department	Dec 2017 to Till date
03.	Consumables in-charge	Head of the Department	June 2016 to June 2021
04.	Newsletter In-Charge	Principal	Jan 2017 to Till Date
05.	Class In-Charge	Head of the Department	June 2019 to Till Date
06.	AICTE Proposal	Head of the Department	December 2012 to May 2016
07.	Networks Lab In-Charge	Head of the Department	December 2012 to Till Date
08.	Class Advisor	Head of the Department	December 2012 to May 2019
09.	FDP Committee Member	Principal	June 2010 to May 2012
10.	Class In-Charge	Head of the Department	June 2011 to May 2012
11.	Communication Lab In-Charge	Head of the Department	June 2011 to May 2012

16. Details of Guest lecture delivered

Sl.No	Name of the programme	Organized by	Date
1.	Guest Lecture Programme on Linear Integrated Circuits and Applications	Department of EEE, Al-Ameen Engineering College, Erode	02.04.2019
2.	Guest Lecture for Linear Integrated Circuits	Department of EEE, Nandha College of Technology, Erode	01.04.2019

17. Details of the online Certificates:

Sl.No	Name of the programme	Sponsored by	Duration	Title	Date of Exam	Marks scored
1.	NPTEL online course	IITM	12 weeks	Introduction to Industry 4.0 and Industrial Internet of Things	Jan Apr 2024	79%
2.	NPTEL online course	IITM	12 weeks	Electromagnetic Theory	July Oct 2023	53%
3.	NPTEL online course	IITM	12 weeks	Introduction to Internet of things	20.10.2017	78%
4.	NPTEL online course	IITM	08 weeks	Wireless Mobile Ad Hoc Networks	28.03.2018	76%

18. Details of Patent filed:

Sl.No	Name of the Applicant	Name of the Title	Date	Status
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1.	R.Poornima	Solar Mobile Charger	19.05.2022	Completed

19. Details of Membership in professional Bodies

1. ISTE Life member

20. Self-Appraisal

3 Major Strengths: 1. Easily adaptable to situations
2. Hard Worker
3. Punctuality

3 Major Weaknesses:
1. Much Expectation from others
2. Sensitive
3. Easy to convince

Signature

Annexure

LIST OF PUBLICATIONS

International Journals: 13

1. Dr. R. Poornima, published a paper titled as “Evolutionary gravitational Neocognitron neural network based differential spatial modulation detection scheme for uplink multiple user huge MIMO systems” in the Knowledge-Based Systems, Volume 258, Issue 20, ISSN :0950-7051, December 2022(Annexure)
2. Dr. R. Poornima, published a paper titled as “Solar Powered Floating Water Trash Collector”, in the International Journal of Innovative Research in Technology, Volume 8 Issue 8, pp 162-164, ISSN: 2349-6002, January 2022.
3. Dr. R. Poornima, published a paper titled as “Hand Motion Controlled Robotic Arm”, in the International Journal of New Innovations in Engineering and Technology, Special Issue on ICET-2020, pp 213-217, August 2020.
4. Dr. R. Poornima, published a paper titled as “Smart Irrigation System using Raspberry PI”, in the International Journal of Advanced Science and Engineering Research, Volume: 5, Issue: 1, pp 160-163, 2020.
5. Poornima,R & Mahabub Basha A published a paper entitled,” Efficient Detection of Signal in MIMO System using Modified Memetic Algorithm with Higher Order QAM Constellations”, Applied Mathematics and Information Sciences,Vol.12,No.3,pp.665-671,May 2018.
6. Poornima, R Mahabub Basha A & Mounika R published a paper entitled, “Design and FPGA-Implementation of Minimum PED based K-best algorithm in MIMO detector” in the International Journal of Circuits and Systems”, Volume 7, No 6, pp 612-621, May 2016, DOI: 10.4236/cs.2016.76052.

7. Poornima R, Mahabub Basha A & Mounika R published a paper entitled, “ Design of Minimum Partial Euclidean Distance Based K -Best Algorithm For High Performance MIMO Detector”, in the “International Journal of Scientific & Engineering Research”, Volume 7, Issue 2, February 2016, ISSN 2229-5518.
8. Poornima R, Mahabub Basha A & Nandhakumar B published a paper entitled, “Performance Analysis of MIMO Detector” in the “International Journal of Applied Engineering Research”, Vol. 10 No.38 (2015), ISSN 0973-4562.
9. Poornima R, Mahabub Basha A & Manjurega B published a paper entitled “Performance Analysis of MIMO Systems Using Genetic Algorithm”, in the “International Journal of Applied Engineering Research” Vol. 10 No.56 (2015), ISSN 0973-4562.
10. Poornima R, Mahabub Basha A & Manjurega B. published a paper entitled “High Performance MIMO Detection Based On Genetic Algorithm”, in the “Australian Journal of Basic and Applied Sciences”, Vol 9(10) Special 2015, Pages: 146-153, 2015 ISSN:1991-8178.
11. Poornima R. & Balakrishnan, C. published a paper entitled “Minimum PED Based K Best Algorithm Using Wavelet Modulation for High Performance MIMO Detector” in the International Journal of Electronics & Communication Technology (IJECT)- Vol V Issue II, Ver. 1 Apr To June 2014.
12. Poornima R & Balakrishnan, C. published a paper entitled “Minimum PED based K best algorithm for high performance MIMO detector” in the IEEE Xplore, DOI:10.1109/ICACCS.2013.6938742, Dec 2013.
13. Poornima R & R.Srithulasiraman published a paper entitled “Maximum Speed Data transfer using SOGR EM Algorithm for Mobile Ad Hoc Network” in the “International Journal of Science and Research”, Volume 2 Issue 4, April 2013.
14. Poornima R & S.A.Hafsa published a paper entitled “Cluster based Adaptive Fault Tolerant QoS Routing Algorithm for wireless networks” in the CIIT International Journal of Networking and communication Engineering, June 2012, DOI:NCE062012003.

International Conferences: 11

1. Poornima R published a paper entitled, “Enhancing MIMO NOMA system Performance : Deep Learning -Enabled Optimization of SUM Data rate and Energy Efficiency” in the International Conference on Emerging Material and Technology: On 21.02.2024 at K.S.R College of Engineering, Tiruchengode.
2. Poornima R published a paper entitled, “ **Hand motion controlled Robotic Arm**” in the International Conference on Engineering and Technology - ICET-2020 held on 04th and 05th March 2020 at Selvam College of Technology, Namakkal.
3. Poornima R published a paper entitled, “**GPS based real time vehicle tracking system using android**” in the second International Conference on Recent

Advances in Engineering and Technology-ICRAET 2019 at Sri Krishna College of Engineering and Technology, Coimbatore on 08.02.2019 & 09.02.2019.

4. Poornima R published a paper entitled “ **FPGA Implementation of Reduced bit error rate-MIMO Detection Algorithm**” in the International Conference on Recent Trends in Engineering and Technology’17 at KSR Institute for Engineering and Technology, Tiruchengode on 17.03.2017.
5. Poornima R presented a paper entitled “**Design of Minimum partial Euclidean distance based K-best algorithm for high Performance MIMO detector**” in the International Conference on Modern Engineering, Science & Technology - 2016 organized by Institute of Engineering Research on 05.02.2016.
6. Poornima R presented a paper entitled “**Performance Analysis of MIMO Detector**” in the International Conference on “Advances in Computing, Control, Communication, Automation and Structural Engineering (ACCCAS-2015)” organized by Al-Ameen College of Engineering, Erode.
7. Poornima R presented a paper entitled “**High Performance MIMO Detection Based on Genetic Algorithm**” in the International Conference on Electrical, Electronics and Computer Engineering (ICEECE2015) organized by Vivekanandha College of Engineering for women, Tiruchengode on 11th and 12th March 2015.
8. Poornima R presented a paper entitled “**Minimum PED based K best algorithm for high performance MIMO detector**” in the International Conference on Advanced Computing & Communication Systems on 19th -21th December 2013 at Sri Eshwar College of Engineering, Coimbatore.
9. Poornima R presented a paper entitled “**Enhancing the Life time of Wireless Sensor Networks using Optimized Energy Scheduling Algorithm**” in the Fourth International Conference on “Advanced Computing and Embedded Technology” organized by J.K.K.Nataraja College of Engineering and Technology, Tamilnadu on 08.03.2013 to 09.03.2013.
10. Poornima R presented a paper entitled “**Reducing the Time Delay using SOGR EM Algorithm for Mobile ADHOC Network**” in the Fourth International Conference on “Advances in Computer and Communication & Management” organized by Sun College of Engineering and Technology, Erachakulam on 18.02.2013 to 20.02.2013.
11. Poornima R presented a paper entitled “**Fault Tolerant QoS Using Extended Fully Distributed Cluster Based Wireless Networks**” in the International Conference on “Emerging trends in Computer and Communication Technologies”, at Maria College of Engineering and Technology, Kanyakumari on 16.02.12 & 17.02.12.
12. Poornima R presented a paper entitled “**A Mutual Authentication Scheme for RFID Reader and Tag**” in the International Conference on “Advances in Engineering and Technology”, at E.G.S Pillay Engineering College, Nagapattinam, from 27.05.2011 & 28.05.2011.

National Conferences: 04

1. Poornima R presented a paper entitled, “**Automatic Mobile platform for Physically Challenged people in railway junction**” in the National Conference on Emerging Trends in Engineering and Technology held on 16.03.2019.
2. Poornima R presented a paper entitled, “**Question Paper Leakage Detection using Smart Locker System**”, in the 5th National Conference on Advancement in Electrical power, Signal processing & Communication Network System held on 23.03.2018
3. Poornima R presented a paper entitled “**Automatic Toll Collection System and Theft Detection of Vehicle**” in the ICMR sponsored National Conference on Emerging Trends in Bioelectronics, Information and Communication Technologies at K.S.Rangasamy College of Technology on 12.04.2017.
4. Poornima R presented a paper entitled “**Control of Boiler Operation using PLC-SCADA**”, in the National Conference on Automation, Computing, Communication and Control Systems, at Vivekanandha College of Engineering for Women, Tiruchengode, from 01.04.2010 to 02.04.2010.