

BIO DATA



Name : Dr.R.Sivaranjani

Designation : Professor

Department : ECE

Address for Communication: Plot.No.341, K.K.Nagar, Madurai-20.

Email : bharathi.sivaranjani@gmail.com

Mobile Number : 9629389872

Google Scholar link:

<https://scholar.google.com/citations?user=f4nJwHcAAAAJ&hl=en>

1. Educational Qualification:

Degree	Branch/Specialization	Institute/University	Year of passing
Ph.D	Information and Communication	Thiagarajar College of Engineering, Madurai	2020
M.E.,	Communication Systems	Thiagarajar College of Engineering, Madurai	2005
B.E.,	Electronics and Communication Engineering	Govt. College of Engineering, Tirunelveli	2001

2. Professional/ Industry Experience: (in chronological order)

Sl. No.	Designation	Institute/Organization	Period	
			From	To
1.	Professor	Vaigai Collge of Engineering	25.08.2021	Till Date
2.	Associate Professor	Sethu Institute of Technology	01.01.11	08.09.20
3.	Assistant Professor (SG)	Sethu Institute of Technology	01.07.10	31.12.10
4.	Assistant Professor	Sethu Institute of Technology	01.01.08	30.06.10
5.	Senior Lecturer	Sethu Institute of Technology	01.07.06	31.12.07
6.	Lecturer	Sethu Institute of Technology	03.07.01	30.06.06

3. Research Interest: Signal & Image Processing

4. Journal Publications (add patent if any):

- **R. Sivaranjani**, S.Md. Mansoor Roomi, M. Senthilarasi “Speckle noise removal in SAR images using Multi-Objective PSO (MOPSO) algorithm” is published in Elsevier, Applied Soft Computing (Impact factor – 5.472) Vol. 76, pp. 671-681, 2019. ISSN 1568-4946 DOI: 10.1016/j.asoc.2018.12.030



- **R. Sivaranjani**, S.Md.Mansoor Roomi, “UDWT Based SAR Despeckling Using Interscale Dependence” in the International Journal of Applied Engineering Research (IJAER) ISSN 0973-4562 Volume 10, Number 16 (2015) pp 36827-36833
- **R. Sivaranjani**, S.Md.Mansoor Roomi, “An Overview of Automatic Target Detection (ATD) algorithms in SAR Image “in the International Journal of Engineering Trends and Applications (IJETA) ISSN: 2393-9516 – Volume 4 Issue 2, Mar-Apr 2017, pp 50-55
- **R. Sivaranjani**, S.Md. Mansoor Roomi, “SAR Image Target Classification: A Feature Fusion Approach” in the International Journal of Computer Science and Network (IJCSN), Volume 6, Issue 6, December 2017, ISSN (Online): 2277-5420. pp 689-693.

5. Book/Book chapter publications:

- Sasithradevi, S. Mohamed Mansoor Roomi, **R. Sivaranjani**, Chapter 14 - Generative adversarial network for video analytics, Generative Adversarial Networks for Image-to-Image Translation, Academic Press,2021, Pages 329-345, ISBN 9780128235195, <https://doi.org/10.1016/B978-0-12-823519-5.00008-7>.
- M, Sentilarasi., S, M.Mansoor Roomi., R.Sivaranjani (2020). Deep Learn Bananas: A Transfer Learning for Banana Variety Classification. In: Babu, R.V., Prasanna, M., Namboodiri, V.P. (eds) Computer Vision, Pattern Recognition, Image Processing, and Graphics. NCVPRIPG 2019. Communications in Computer and Information Science, vol 1249. Springer, Singapore. https://doi.org/10.1007/978-981-15-8697-2_53

6. Funded Projects -Nil

Sl. No.	Title of the project	Funding Agency	Duration	Amount	Status

7. Ph.D guidance -Nil

Sl. No.	Scholar Name	University	Topic	Status

7. Participation in Seminars/FDP/Workshop/Conference/Webinar:

Online Certification Courses: 07

- **Coursera**—Successfully Completed **12 weeks** course on **Fundamentals of Digital Image and Video processing** Online Non-credit course authorized by Northwestern University- April 2017. (<https://www.coursera.org/account/accomplishments/certificate/NV8YCYZVTX5U9>)
- **NPTEL Online Certification** ----Got **Elite** grade with score of **60%** in the **8-week** course (July-Sep 2017) **Basic Electrical Circuits** conducted by IIT-M
- **NPTEL Online Certification**----Got **Elite** grade with score of **81%** in the **8-week** course (Jan-March 2018) **Introduction to Applied Soft Computing** conducted by IIT-Kharagpur
- **NPTEL Online Certification** ----Got **Elite** grade and **5% topper** with score of **79%** in the **8-week** course (Jul- Oct 2018) **Discrete Time Signal Processing** conducted by IIT-Kharagpur
- **NPTEL Online Certification** ----Got **Elite** grade with score of **83%** in the **12-week** course (Jul- Oct 2018) **Digital Image Processing** conducted by IIT-Kharagpur
- **NPTEL Online Certification** ----Got **Elite** grade, **Silver** and **2% topper** with score of **88%** in the **12-week** course (Jan-Apr 2019) **Principles of Signals and Systems** conducted by IIT-Kharagpur
- **NPTEL Online Certification** ----Got **Elite** grade, **Silver** with score of **84%** in the **12-week** course (Jul-Oct 2019) **Pattern Recognition and Applications** conducted by IIT-Kharagpur

Papers Published in International & National Conferences: 14

- K. Rajeswari, **R. Sivaranjani**, “Real time Operating systems for Embedded Systems” at National Conference on Software agents and embedded Systems, Sri Ramakrishna Engineering College, Coimbatore.”11th -12th July 2003
- **R. Sivaranjani**, S.Md. Mansoor Roomi” Performance analysis of Audio video coding on Medical images” at National Conference on Image Processing (NCIP)M.S. Ramaiah school of advanced studies, Bangalore 22nd-25th March 2005
- Devasena, **R. Sivaranjani**, “Application of EMD algorithm for robust Image water marking “at National Conference on Signal processing & Communication Technologies (CSPCT’08) Kamarajar College of Engineering, Virudhunagar 11th April 2008
- Veeraeswari, **R. Sivaranjani**,” Performance analysis of PWL based Image enhancement System” at AITCA-2008, PSNA College of Engineering and Technology.
- Sivasankari, **R. Sivaranjani**, “Despeckling of SAR image using adaptive curve fitting approximation in Curvelet domain” at CSPCT’11 at Kamarajar College of Engineering, Virudhunagar 11th April 2008
- **R. Sivaranjani**, S.Md. Mansoor Roomi Paper Presented on “A review on Despeckling algorithms for SAR images” at a National Conference on Emerging Trends in wireless technologies (ETWT), Thiagarajar College of Engineering, Madurai National 2010
- **R. Sivaranjani**, S.Md. Mansoor Roomi Paper Presented on “On the Performance of Thresholding techniques in Despeckling SAR Images” in the National Conference on Signal and Image Processing(NCIP-2012), at Gandhigram Rural Institute-Deemed University, Gandhigram during February 9-10,2012
- **R. Sivaranjani**, S.Md. Mansoor Roomi, “SAR image Denoising using Multispinning Concept” at 2012 IEEE International Conference on Advanced Communication, Control & Computing Technologies (ICACCCT) at Syed Ammal Engineering College, Tamilnadu. (Aug 23-25,2012)
- **R. Sivaranjani**, S.Md. Mansoor Roomi, “Combined curvelet transform and multispinning algorithm for despeckling of SAR images” at 2013 IEEE International Conference on Computing,



Communication and Networking Technologies (ICCCNT 2013) at Vivekananda College of Engineering for Women, Tiruchengode, Namakkal (4th to 6th July 2013)

- **R. Sivaranjani**, S.Md. Mansoor Roomi, “On the evaluation of edge preserving SAR image despeckling using MOPSO” in the International Conference on Mathematical Computer Engineering School of Advanced Sciences, at VIT University, Chennai. December 14 -15, 2015
- **R. Sivaranjani**, S.Md. Mansoor Roomi, “An Overview of Automatic Target Detection (ATD) algorithms in SAR Image” in the National Conference on Computational Methods, Communication Techniques and Informatics (NCCCI-2017), at Gandhigram Rural Institute-Deemed University, Gandhigram (27th -28th January 2017).
- **R. Sivaranjani**, S.Md. Mansoor Roomi, “Swarm based despeckling of Images” in the 2017 IEEE International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS) at Karpagam College of Engineering, Coimbatore (17th -18th March 2017).
- P.S. Ajithkumar, J. Irinswetha, **R.Sivaranjani**,” Glaucoma detection using Machine learning algorithm”, in the International conference on Emerging Trends in Engineering and Technology (ICETET’ 2018 held on 9th and 10th March 2018 at Pandian saraswathi yadhav engineering college.
- R.AnuPriya, A.Ancy, K.Afrin Fathima, **R.Sivaranjani**, “Banana leaf disease detection using ML algorithms” in the IETE sponsored 10th National Conference on Signal Processing and Communication Technologies CSPCT’19 on 28.03.2019.

Conferences Attended: 03

- Indian Conference on Computer Vision, Graphics and Image Processing at IIIT Hyderabad in association with the Indian Unit for Pattern Recognition and Artificial Intelligence (IUPRAI), 18th -22nd December 2018
- Indian Conference on Computer Vision, Graphics and Image Processing at Indian Institute of Technology, Bombay, 16th -19th December 2012
- Indian Conference on Computer Vision, Graphics and Image Processing at Indian Institute of Technology, Chennai, 12th -15th December 2010

FDP/Symposium/Seminars Organized: 08

- Organized **Two-day DST Sponsored National level Seminar** on “Challenges in Remote sensing and GIS” on 21st and 22nd March 2013 at Sethu Institute of Technology.
- Organized **Three Day workshop** on “Introduction to MATLAB and MATLAB modules” Organized for Students of Electronics and Communication Engineering. (2011 Batch) (2015 Batch) (2018 Batch)
- Organized **One day Workshop** on “Image Processing “for Final Year Students of Electronics and Communication Engineering. (2010 Batch)
- Organized **One day Workshop** on “An Insight into Image Processing Using MATLAB “for the Students of Electronics and Communication Engineering, SIT. (01.03.2017)
- Organized **Anna University Approved Seven Days Faculty Development Training Programme** on “Signals and Systems-EC6303” from 4th June to 11th at Sethu Institute of Technology.
- Organized **TNSCST Sponsored National level Seminar** on “Satellite Remote Sensing in Climate Change studies” on 12th July 2019 at Sethu Institute of Technology
- Organized Workshop on “Hardware Product Design” along with **Caliber Embedded Technologies India Pvt Ltd** from 3rd October 2019 to 4th October 2019
- Organized a **National Level Technical Symposium “FORSHEN”** (2007,2008,2009,2010,2011) at Sethu Institute of Technology.



Webinars Organized: 10

- Getting ready for the next era of learning- An online perspective on 11th July 2020
- Practical applications of Control Systems in industry on 17th July 2020
- eSim 2.0(Open-Source Electronic Simulator) from 20th July 2020 to 21st July 2020
- Machine Learning for Healthcare Applications on 28th July 2020
- ARDUINO Hardware & Programming on 30th July 2020
- The Major change in the concepts and practices of our life style after COVID-19 on 8th August 2020
- Gender Sensitization on 14th August 2020
- Technology and Business- Bridging the Gap with Data Science on 29th July 2020
- eSim -Open-Source Electronic Simulator on 12th November 2021
- Digitech Tools for Online Teaching on 29th January 2021

Seminar/Workshops/FDP/Webinar Attended: 74

1. Workshop on “Recent trends in Wireless Technologies” at Thiagarajar College of Engineering on 18th April 2003
2. Workshop on “Image Processing” at Thiagarajar College of Engineering on 19th&20th September 2003
3. Workshop on “Intellisuite MEMSCAD Software” at Thiagarajar College of Engineering on 10th July 2004
4. Workshop on “Digital Laboratory” at K.L.N. College of Engineering on 16th &17th June 2005
5. Workshop on “Digital signal Processors” at K.L.N. College of Information Technology on 15th October 2005
6. Workshop on “Image Processing with IDL Programming” at Kamaraj College of Engineering, 21st September 2007
7. National Seminar on “Micro Sensors Development and Deployment Challenges” (MSDDC) at Sethu Institute of Technology, Kariapatti.17th &18th December 2007
8. National seminar on" Recent advances in Wireless Sensors Networks” at Sethu Institute of Technology, Kariapatti. 15th & 16th May 2008
9. Research Induction Programme, at Sethu Institute of Technology, Kariapatti. 21st October 2008
10. Workshop on” Embedded Packaging Technologies for System Integration” at Thiagarajar College of Engineering, 5th December 2008
11. Workshop on “High Impacts Teaching skills”- MISSION 10X WIPRO &KLNCE, from 5th Jan to 9th Jan 2009 and 15th July 2009
12. Workshop on “Signal Processing” at Thiagarajar College of Engineering on 31st January 2009
13. One day Workshop on “Gender Sensitization” at Sethu Institute of Technology on 27th March 2009.
14. Workshop on “Digital image Processing” K.L.N.College of Information Technology on 27th &28th August 2009
15. Workshop on “Team Building” Sethu Institute of Technology on 17th August 2009
16. DRDO Sponsored National seminar on Recent Advances in Nanoferrite materials for Micro strip Antenna Sethu Institute of Technology, Kariapatti. 21st &22nd 2009
17. Workshop on “Application of Mathematics in Genetic Engineering, Data Mining, Simulation, Stochastic Process & Modelling skills”, Sethu Institute of Technology on 25th &26th November 2009
18. Five days Summer School on “Advances in Visual Object Recognition and Retrieval” organized



- by IUPRAI and TCE during July 4th to 8th 2011.
19. Workshop on " Radar Systems and Applications" organized by Siemens & TCE, during August 01-02,2011.
 20. AICTE sponsored Staff Development Programme on "Research Methodologies and Issues in Engineering" at TCE from 12th Dec to 24th Dec, 2011.
 21. DRDO Sponsored three-day workshop on "Hands-on training on LabVIEW" AUT, Madurai, during February 01-03, 2012
 22. DRDO Sponsored National Seminar on "Recent advances in wireless Sensor Networks-RAWSN" at SIT, during Feb 10-11, 2012
 23. CSIR Sponsored National Seminar on "Recent trends in Optical communication and Networks-RTOCN" at SIT, during March 26-27,2012
 24. Workshop on "Fractal & Sparse Signal Representation" at Vickram College of Engineering, Madurai, during March 30-31,2012
 25. DRDO Sponsored National Seminar on "Recent Advances in Electronics and Instrumentation for Oncological Detection" at Sethu Institute of Technology during November 28th -29th , 2012
 26. Intensive Course on "MIMO in RADAR & Communication Systems", at Thiagarajar College of Engineering during September 22-23,2012
 27. National level workshop on "Fuzzy Optimization for Image Processing & Control System Applications" at Sethu Institute of Technology on 3rd December 2012.
 28. National Level workshop on "Mobile learning" at Thiagarajar College of Engineering on 21st Feb 2013
 29. Two days Workshop on "Image Processing" at Sethu Institute of Technology during August 21-22, 2013
 30. National level workshop on "Applications of Soft Computing Techniques using MATLAB" at Kongu Engineering College during September 02-03, 2013
 31. Faculty Improvement program on "Paradigms in Recent Research Methodology" at Sethu Institute of Technology during 6th and 7th May 2013.
 32. AICTE Sponsored FDP on "Recent Advances in ROBOTS and ROBOT Programming" at Sethu Institute of Technology during 11th and 23th March 2013.
 33. Workshop on "Outcome based Accreditation" at Sethu Institute of Technology during 22th and 23th November 2013.
 34. DST sponsored National seminar on "Challenges in Remote sensing and GIS" at Sethu Institute of Technology, during 25th and 26th March 2013.
 35. Two-day Workshop on Research and Teaching in Image Processing and Pattern Recognition at International Institute of Information Technology (IIITH), Hyderabad during November 9-10, 2013
 36. TEQIP Sponsored Two-day workshop on "SAR Image Processing" at Thiagarajar College of Engineering during August 7-8, 2015
 37. "Hands on Training Programme on Soft Computing Using MATLAB" at MIT Campus, Anna University, Chennai during August 28-30 2015.
 38. One day workshop on "Intellectual Property Rights and Innovation" held on 20th April 2016 at Sethu Institute of Technology.
 39. Anna University Sponsored Six Days Faculty Development Training Programme on "Control Systems" organized by Syed Ammal Engineering College (2017)
 40. TEQIP-II sponsored workshop on "Research Paper Writing" at Thiagarajar College of Engineering on January 24th, 2017
 41. National Workshop on Computer Vision & Image Processing Techniques - NWCVIPT' 17, Amrita University, Coimbatore during 30th March –1st April 2017
 42. Two-week AICTE sponsored Faculty Development Programme on "Mathematical Sciences Research Challenges in Engineering Applications" at Sethu Institute of Technology during 20th November-2nd December,2017
 43. Two-day Conference "Madurai connect 2018" Organized by Confederation of Indian Industry
 44. Two Day All India Seminar on "Research Challenges in Terahertz Wave Technology" Organized by Sethu Institute of Technology In collaboration with The Institution of Engineers (INDIA)



- during 12th and 13th July 2018.
45. Anna University approved Seven Days FDTP on “Signals and System” at Sethu Institute of Technology during 4th to 11th June 2018.
 46. Two-day National Workshop on “Intellectual Property Rights “at Sethu Institute of Technology during 8th and 9th November 2018
 47. One day Workshop on “Art of Writing Project Proposal” at Sethu Institute of Technology on 10th January 2019
 48. National Workshop on “Role of IPR in Innovation Management and Academia-Industry Collaboration” on February 7th 2019 jointly organized by National Research Development Corporation, New Delhi and Sethu Institute of Technology.
 49. TNSCST Sponsored National level Seminar on “Satellite Remote Sensing in Climate Change studies” on 12th July 2019 at Sethu Institute of Technology
 50. Institution of Engineers Sponsored Two days All India Seminar on “Internet of Things for smart Applications from 1st august and 2nd august at Sethu Institute of Technology
 51. Webinar on "How to Conduct Online Class to Students" by Atal Incubation Centre-Pondicherry Engineering College Foundation, Pondicherry on 08-04-2020
 52. FDP on “Data analysis & Visualization of COVID-19 Dataset using Python” by Jerusalem college of Engineering and Computational intelligence research foundation (CIRF) on 07-05-2020
 53. Webinar on “Writing a Winning Project Proposal” by the Internal Quality Assurance Cell, Mar Athanasius College Kothamangalam, kerala on 11.05.2020.
 54. Webinar on “Design and EM simulation of RF modules, Antennas using CST Studio Suite” by TCE, Madurai from 26-05-2020 to 27-06-2020
 55. Webinar on “RADAR TECHNOLOGIES” Meenakshi Sundararajan Engineering College, Chennai on 20-06-20
 56. Live online workshop on “Innovative product design using Arduino” Atal Incubation Center, Pondicherry Engineering College on 17-06-2020
 57. Webinar on “Data Analytics” by Saradha Gangadharan College, Puducherry on 24-06-2020
 58. Webinar on “Enterprise Resource Planning”, by Saradha Gangadharan College, Puducherry on 23.05.2020
 59. Webinar on “Fire & Gas Detection for Oil & Gas / process industrial applications” by St. Joseph’s College of Engineering, Chennai on 27-06-2020.
 60. Webinar series” Revolutionary Challenges in Computational Intelligence and Impact on Covid-19 Pandemic” by Velammal College of Engineering and Technology, Madurai from 08-06-2020 to 11-06-2020
 61. Webinar on “Post Covid -19 Challenges on healthcare field for budding Engineers” PSNA College of Engineering and Technology, Dindigul, on 07-07-2020
 62. Webinar on “Machine Learning in Edge Devices” by SIT on 08-08-2020.
 63. Rashtriya Uchchar Shiksha Abhiyan (RUSA) sponsored webinar on “The Art of Writing Research Papers” organized by the Internal Quality Assurance Cell (IQAC), Mar Athanasius College Kothamangalam, Kerala on 14.05.2020.
 64. FDP on “Moodle -Learning Management Systems” by Tagore Institute of Engineering and Technology, Attur in association with Spoken Tutorial IIT, Bombay Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT), MHRD, Govt. of India from 4th May to 9th May 2020
 65. Three-day online FDP on “eSim 2.0” by VIT, Chennai in association with Spoken Tutorial IIT, Bombay Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT), MHRD, Govt. of India from 14th May to 16th May 2020
 66. Five days online FDP on “Computing & Signal processing in IOT applications” from 23rd May to 27th May 2020 QIS College of Engineering and Technology and technically cosponsored by IEEE Madras section.
 67. NPTEL-AICTE FDP Pattern Recognition and Applications (1 ½ half week FDP) (JULY-OCT 2019)
 68. NPTEL-AICTE FDP Digital Image Processing (1 ½ half week FDP) (JULY-OCT 2018)
 69. Five days online FDP on “Deep Learning with MATLAB and Python” by SRM Institute of science and Technology from 13-07-2020 to 17-07-2020



70. **One Month National Online Gender Sensitization and Capacity Building Programme “Gender, Society, Economy and Polity”** by Dept of Women’s Studies, Bharathidasan University Centre for Women’s Studies & NSS of Cauvery College for Women (Autonomous)& RAWS from 13-07-2020 to 12-08-2020
71. One Day Workshop on **Script writing for the Radio Serial-Artificial Intelligence**” in Tamil Sponsored by Vigyan Vigyan Prasar, Department of Science and Technology organized by Tamilnadu Science Forum, Madurai on 12-12-2020 at St.Britto Higher Secondary School, Madurai.
72. FDP on **“Deep learning for Image Analysis”** from 30th July 2021 to 31st July 2021 at Thiagarajar College of Engineering (Online).
73. Faculty Development Programme on **"HITS- High Impact on Teaching Skills"** September 27 to Oct 1 2021 at Vaigai College of Engineering. (Online).
74. Two-day National Workshop on **“Digital Disruption in Learning”** on 17th & 18th September 2021 organized by ASSOCHAM & KCLAS (Online).

9. Membership in Professional societies

- Life Member in ISTE (LM 32878)
- Member in IETE(M-228070)

10. Awards, Recognition & Achievements

- 10 years service award from Sethu Institute of Technology
- 100% Result award from Sethu Institute of Technology
- Top 2% performer in NPTEL Principles of Signals and Systems course
- Top 5% performer in NPTEL Discrete Time Signal Processing course
- NPTEL DISCIPLINE STAR-DEC 2019 for appearing NPTEL exams.
- Attained Elite in NPTEL, Basic Electrical Circuits, Introduction to Applied Soft Computing, Discrete Time Signal Processing, Digital Image Processing, Principles of Signals and Systems and Pattern Recognition and Applications courses
- Received “Kalai Munaivor” Award from Madurai Nagaichuvai Mandram for Encouraging students in Extracurricular activities.
- Best Pink Women Empowerment Cell Convenor by India Turns Pink Foundation in recognition of the successful women in their field.

Any others (if any):

- Delivered Lecture on “Artificial Intelligence- a primer” to the school students in the webinar conducted by Kenbridge School, Tirunelveli.
- Delivered guest lecture on “பெண் என்னும் பெரும் சக்தி “ in the webinar conducted by Arasu Engineering College on 04-08-2021.
- Delivered presentation on “Deep in to the AI and Types of AI” in the One Day Workshop on Script writing for the Radio Serial-Artificial Intelligence on 12-12-2020 at St. Britto Higher Secondary School, Madurai.
- One of the script writers for the Radio Serial-Artificial Intelligence in Tamil, Sponsored by Vigyan Prasar, Department of Science and Technology organized by Tamilnadu Science Forum, Madurai and All India Radio.