

**Dr.Anitha.N**



**Designation:** Assistant Professor

**Qualification:** M.E, Ph.D

**Area of specialization:** MEDICAL IMAGE PROCESSING

<b>Experience :</b> (As On Jan 2023)	<b>Industrial Experience</b>	<b>Teaching Experience</b>
	2.6 Years	3.3 Years

<b>Number of workshop / FDP attended:</b>	<b>Number of Workshops</b>	<b>Number of FDPs</b>
	3	8

<b>Publications:</b>	<b>Conference</b>		<b>Journal</b>	
	<b>National</b>	<b>International</b>	<b>National</b>	<b>International</b>
	1	2	-	10

<b>Patents:</b>	<b>National</b>	<b>International</b>
	-	-

**Professional Body Membership:** IEEE Member

**Staff Achievements:**

1. Completed courses in NPTEL and IIRS.
2. Organized a guest lecture in MIT Campus, Anna University.
3. One of the top reviewers on PUBLONS in the year 2019.

<b>Workshop Details:</b>	<b>Sl. No.</b>	<b>Title</b>	<b>Venue</b>	<b>Month/Year</b>
	1.	Implementation of Machine Learning Algorithms using MATLAB	Kalasalingam Academy of Research and Education (KARE)	10-11, February 2017
	2.	LabVIEW for Graphical System Design	KLU – NI Technology Innovation Centre of KARE	2-8, March 2016
	3.	Research Methodology	National Workshop organized by the Department of Information Technology of KARE	9-10, February 2016
<b>FDP Details:</b>	<b>Sl. No.</b>	<b>Title</b>	<b>Venue</b>	<b>Month/Year</b>
	1.	IEEE Madras section sponsored 5 day FDP on ‘Recent trends in 5G communication networks’	Online	26-30, Dec 2022
	2.	AICTE Incorporating Universal Human Values in Education (An AICTE Initiative)”	SI UHV online 5-day FDP	26-30, July 2021
Continuing				

	3.	Professional Development: Practicing, Researching and Publishing	NIT Tiruchirappalli	12-23, July 2021
	4.	Speech, audio processing using deep learning techniques: Research issues, innovation and applications	University College of Engineering, Ramanathapuram association with E & ICT Academy, NIT Warangal	7-17, June 2021
	5.	Machine Learning Techniques for Imaging and Healthcare with Python	AICTE sponsored 2 weeks online FDP at Sri Sairam engineering college	18-31, March 2021
	6.	Machine Learning and R Tool	Thiagarajar College of Engineering, Madurai	5-9, September 2018
	7.	Machine learning and IoT	Kalasalingam Academy of Research and Education & Krish Tec, Coimbatore.	2-7, July 2018
	8.	Wavelet and Sparse Signal Processing	K.L.N. College of Information Technology	27-28, February 2014

## Publication Details:

1. N. Anitha, M.P.Rajasekaran, Yudong Zhang, G. Vishnuvarthanan and T. Arunprasath, 'Multi-channelled MR brain image segmentation: A novel double optimization approach combined with clustering technique for tumor identification and tissue segmentation', *Biocybernetics and Biomedical Engineering*, 39 (2), 2019, pp. 350 – 381. (Elsevier journal of impact factor: 1.374)
2. V. Anitha, M.P.Rajasekaran, Yudong Zhang, G. Vishnuvarthanan and T. Arunprasath, 'Development of a Combinational Framework to Concurrently Perform Tissue Segmentation and Tumor Identification in T1-W, T2-W, FLAIR and MPR Type magnetic resonance brain images', *Expert Systems with Applications*, 95, 2018, pp. 280 – 311. (Elsevier journal of impact factor: 3.928)
3. V. Anitha, M.P.Rajasekaran, Yudong Zhang, G. Vishnuvarthanan and T. Arunprasath, 'An automated hybrid approach using clustering and nature inspired optimization technique for improved tumor and tissue segmentation in magnetic resonance brain images', *Applied Soft Computing*, 57, 2017, pp.399 – 426. (Elsevier journal of impact factor: 3.541)
4. G. Vishnuvarthanan, M.P. Rajasekaran, N. Anitha, T. Arunprasath and M. Kannan, 'Tumor detection in T1, T2, FLAIR and MPR brain images using a combination of optimization and fuzzy clustering improved by seed-based region growing algorithm', *International Journal of Imaging Systems and Technology*, 27 (1), 2017, pp. 33 – 45. (Wiley-Blackwell of impact factor: 1.139)
5. G. Vishnuvarthanan, M.P. Rajasekaran, P.Subbaraj and V. Anitha, 'An Unsupervised learning method with a clustering approach for tumor identification and tissue segmentation in magnetic resonance brain images', *Applied Soft Computing*, 38, 2016, pp.190–212. (Elsevier journal of impact factor: 3.541)
6. N. Anitha, Yudong Zhang, M. P. Rajasekaran, G. Vishnuvarthanan, S. Vigneshwaran and S. Sakthivel, 'Parameterization of BFO Algorithm for the Improved Functionality of MFKM Technique for Better Pathological Identification in Brain MR Image', *International Journal of Innovative Technology and Exploring Engineering*, ISSN: 2278-3075, 9 (2S2), December 2019, pp. 956– 961.(Scopus indexed)
7. N. Senthilkumar, G. Vishnuvarthanan, B. Kannapiran, M.P. Rajasekaran, T. Arunprasath, N.Anitha and J.S. Deny, 'Amalgamation of Clustering and Meta-heuristic Optimization Techniques for Automated MR Brain Analysis', *International Journal of Innovative Technology and Exploring Engineering*, ISSN: 2278-3075, 9 (2S2), December 2019, pp. 642– 647. (Scopus indexed)

8. S. Vigneshwaran, G. Vishnuvarthanan, N. Anitha, M. P. Rajasekaran, Yudong zhang and T. Arunprasath, “An Automated Map Process Based Improved Fuzzy C-Means Algorithm for Pathological Detection in MR Image”, *International Journal of Innovative Technology and Exploring Engineering*”, ISSN: 2278-3075, 9 (2S2), December 2019, pp. 937– 941. (Scopus indexed)
9. S. Vigneshwaran, G. Vishnuvarthanan, N. Anitha, M.P. Rajasekaran and T. Arunprasath, “Examining the Pathological Portions in MR Brain Slices using Automated Map and Improved Fuzzy K-Means Clustering”, *International Journal of Innovative Technology and Exploring Engineering*”, ISSN: 2278-3075, 9 (2S2), December 2019, pp. 942– 946. (Scopus indexed)
10. N. Anitha, G. Vishnuvarthanan, M. P. Rajasekaran and T. Arunprasath, ‘A complete automated algorithm with a fusion of optimization and clustering techniques for tumor identification in multimodal MR brain images’, *International Conference on Advances in Applied Engineering and Technology – 2015 (ICAAET – 2015)*, Syed Ammal Engineering College, Ramanathapuram, Tamilnadu, India on May 14 – 16, 2015 and published in *International Journal of Applied Engineering Research (IJAER)*, ISSN: 0973-4562, 10 (55), 2015, pp. 2545-2549. Annexure – II journal (Scopus Indexed)

### **Conference Details**

1. V. Anitha, M.P. Rajasekaran, G. Vishnuvarthanan and T. Arunprasath, ‘Magnetic Resonance Brain Image Segmentation: A Survey’, In: *Proceedings of IEEE sponsored International Conference on Engineering and Technology (ICET 2016)*, Coimbatore, Tamil Nadu, India, 6, 2016, pp. 57 – 65, ISBN: 978-1-5090-3212-9.
2. V. Anitha, G. Vishnuvarthanan and M.P. Rajasekaran, ‘An efficient FCM algorithm for tumor segmentation and identification in MR brain images’, In: *Proceedings of 2<sup>nd</sup> International Conference on Design and Applications of Structures, Drives, Communicational and Computing Systems (ICDASDC – 2013)*, K. L. N. College of Information Technology, Tamil Nadu, India, 2013, ISBN: 978-93-80686-92-9.
3. P.Venkatakrishnan, N. Anitha, G. Vishnuvarthanan and S. Sangeetha, ‘Fully Automated Algorithm with a Combination of Optimization and Clustering Techniques for Tumor Identification in Magnetic Resonance Brain Images’, In: *Proceedings of 3<sup>rd</sup> National conference on Frontiers in Applied Sciences and Computer Technology (FACT’15)*, NIT Tiruchirappalli, Tamil Nadu, India, 3, 2015, pp. 103– 110.