BIODATA

a) Name: **Dr. R. Vanithamani**
b) Date of Birth: 30-05-1966
c) **Academic qualifications:**

S. No	Degree	Year	Subject	University/Institution	% of marks
1.	B.E.	1991	Electronics and Communication Engineering	Bharathiar University/ Government College of Technology	**70**
2.	M.E.	2004	Communication Systems	Anna University/ Kumaraguru College of Technology	**76**
3.	Ph.D.	2014	Information and Communication Engineering	Anna University/ PSG College of Technology, Coimbatore	**-**

d) **Areas of expertise:** Embedded Systems & Medical Image Processing
e) **Experience:**

S. No.	Position held (Designation)	Place of work	Duration	Areas of work
1.	Professor	Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore-641108	1.9.2017 to till date	Teaching & Research in Biomedical Instrumentation Engineering
2.	Associate Professor		02.03.2015 to 31.8.2017	
3.	Assistant Professor		01.11.2009 to 01.03..2015	
4.	Lecturer		06.09.2004 to 31.10.2010	Teaching Biomedica Instrumentation Engineering
5.	Lecturer	Kumaraguru College of Technology, Coimbatore	28.01.2004 to 30.04.2004	Teaching Electronics and Communication Engg
6.	Lecturer	Christ the King Institute of Technology (Polytechnic), Coimbatore	06.07.1987 to 30.10.2000	

f) Awards received, if any

S. No	Name of Award	Awarding Agency	Year

1.	Best paper award for the paper titled " Physical parameter measuring medical suit for soldiers" in the International Conference on Science, Technology, Engineering and Management	Kalainarkarunanidhi Institute of Technology, Coimbatore	2018
2.	Best paper award- for the paper titled "Wireless Voice Controlled Wheel Chair" in the National Conference on Information systems and Computer Engineering- NICE 2007	RV College of Engineering, Bangalore	2007

g) **Publications (Nos.)**
- Books: 1
- Research papers: 24
- Patents: 1

h) List of publications (Paper published during last 10 years)

Journal Publications

S. No.	Name of the author	Title of paper published	Name of the Journal	Volume/ Issue/pp.	Year
1.	Pavithra S. **Vanithamani R.** Justin J.	Computer aided breast cancer detection using ultrasound images	Materials Today: Proceedings-Elsevier	Article in press	2020
2.	Shilpa Saravanan, B Heshma, AV Ashma Shanofer, **R Vanithamani**	Skin cancer detection using dermoscope images	Materials Today: Proceedings-Elsevier	Article in press	2020
3.	D.Pavithra, P.Chandni, Raja Rajeswari, D.Padmini, Priya, S.Vishnu, **Vanithamani. R.**	Cardiac Tele-care	Indian Journal of Public Health Research & Development.	Vol. 10, 1326-1328	2019
4.	C Suresh, H Nagabhushana, R B Basavaraj, G.P.Darshan, B Daruka Prasad D. Kavyashree S C Sharma, **R.Vanithamani**	$Sio_2@LaOF$: Eu^{3+} core- shell functional nanomaterials for Sensitive Visualization of Latent Fingerprints, and WLED Applications	Journal of colloid and Interface Science Elsevier	Vol.518, pp.200-215	2018

5.	K.V.Archana, **Dr.R.Vanithamani**	Review on Intravascular Ultrasound (IVUS) Image Detection,	Advanced Research in Science, Engineering and Technology	Vol. 4, Issue 7	2017
6.	K.Divyadarshini, **R.Vanithamani**	Segmentation of Mammographic Masses using Gray Level Thresholding	International Journal of Tomography and Simulation	Vol.28, Issue 1, pp. 65	2015
7.	**R Vanithamani,** R.Dhivya	Tumor Detection in Breast Ultrasound images	I J C T A, International Journal of Control Theory and Applications, Vol.8 No.5,2015	Vol.8 No.5, pp. 1881-1885.	2015
8.	K.Divyadarshini **R.Vanithamani** and S.Sharmili	Classification of Mammographic Masses Using Fuzzy Inference System	COMPUSOFT, An International Journal of Advanced Computer Technology,	Volume-4,Issue-7, pp. 2320-0790.	2015
9.	G. Umamaheswari and **R. Vanithamani**	An adaptive window hybrid median filter for despeckling of medical ultrasound images	Journal of Scientific and Industrial Research.	Vol.73, (2), pp. 100-102	2014
10	**R.Vanithamani**, G.Umamaheswari,	Speckle reduction in medical ultrasound images using bilateral filter in wavelet domain	International Journal of Tomography and Simulation	Vol.26, Issue 2, pp.123-134	2014
11	**R.Vanithamani,** G.Umamaheswari	Wavelet Thresholding Techniques in Despeckling of Medical Ultrasound Images	International Journal of Engineering and Technology	Vol.5, Issue 6, pp. 5098-5106	2013
12	**R.Vanithamani,** G.Umamaheswari	Speckle Reduction in Ultrasound Images using Neighshrink and Bilateral Filtering	Journal of Computer Science	Vol.10, Issue 4, pp. 623-631	2014
13	M.Shamilee Devi, **R.Vanithamani**	Comparative study of speckle noise reduction filters in ultrasound thyroid images	International Journal of Research in Engineering and Bioscience	Volume 2 (Issue 3) Pages pp. 01-09	2014

14	R. Vanithamani, G. Umamaheswari, A. AjayKrishnan, C.Ilaiyarasan, K. Iswariya and C.G.Kritika	A Hybrid Despeckling Model for Medical Ultrasound Images	Journal of Computing	Volume 3, Issue 9 pp.24-29	2011

Books/Reports/Chapters/General articles etc.

S. No	Title	Author's Name	Publisher	ISBN Number &Year
Book				
1.	Investigation on speckle reduction in medical ultrasound	**Dr.R.Vanithamani**	LAP LAMBERT Academic Publishing, Germany	**ISBN:** 978-6135827170 **Year:** 2018

Book Chapters				
S. No	Title	Author's Name	Book & Publisher	ISBN Number &Year
1.	Exudates in Detection and Classification of Diabetic Retinopathy.	**Vanithamani R**. & Renee Christina R.	Advances in Intelligent Systems and Computing book series (AISC, volume 614), pp. 252-261 Springer	**ISBN**:978-3-319-60618-7 **Year:** 2018
2.	Thyroid Nodule Classification in Medical Ultrasound Images	**Vanithamani R**. & Dhivya R.	Advances in Intelligent Systems and Computing book series (AISC, volume 614), pp. 509-514 Springer	
4.	Atherosclerotic Plaque Detection Using Intravascular Ultrasound (IVUS) Images	Hari Priya A.& **Vanithamani R**	Lecture Notes in Computational Vision and Biomechanics, vol. 30. pp. 1417-1425, Springer	**ISBN**: 978-3-030-00665-5 **Year:** 2019
5.	Diagnosis of Coronary Artery Diseases and Carotid Atherosclerosis Using Intravascular Ultrasound Images	Archana K.V., **Vanithamani R.**	Communications in Computer and Information Science, Vol. 890, pp. 281-288 Springer	**ISBN**:978-981-13-9129-3 **Year**:2019

6.	RFID Based Patient Record Management Information System Using LabVIEW	A. Mahalakshmi & **R. Vanithamani**	Data Engineering and Communications Technologies, Vol. 31 pp. 303-31, Springer	**ISBN** : 978-3-030-24643-3 **Year:** 2020
7.	Computer-Aided Diagnosis of Knee Osteoarthritis From Radiographic Images Using Random Forest Classifier. In Patil, B., & Vohra, M. (Ed.)	Pavithra D., **Vanithamani R.,** & Justin, J.	Handbook of Research on Engineering, Business, and Healthcare Applications of Data Science and Analytics (pp. 384-400) IGI Global	**ISBN:** 9781799830542 **Year:**2020
8.	Breast Cancer Detection Using Random Forest Classifier	Pavithra Suchindran, **Vanithamani R.,** Judith Justin	Handbook of Research on Deep Learning-Based Image Analysis Under Constrained and Unconstrained Environments IGI Global	**ISBN**:9781799866923 **In Press**
1.	Speech Enhancement Using Neuro-Fuzzy Classifier	Judith Justin, **Vanithamani R**.	Handbook of Research on Automated Feature Engineering and Advanced Applications in Data Science. IGI Global	**ISBN:**9781799866619 **In Press**

Full paper published in the proceedings of Conference / Seminars / Symposia, etc

S. No	Paper Details	ISBN No
1.	R. Vanithamani and G. Umamaheswari, "Wavelet based despeckling of medical ultrasound images with bilateral filter**,"** **TENCON 2011 - 2011** IEEE Region 10 Conference, Bali, 2011, pp. 389-393, doi: 10.1109/TENCON.2011.6129131.	978-1-4577-0255-6
2.	M. Preethi. and R. Vanithamani., "Review of retinal blood vessel detection methods for automated diagnosis of Diabetic Retinopathy**,"** **IEEE-International Conference**	978-81-909042-2-3

	On Advances In Engineering, Science And Management (ICAESM -2012), Nagapattinam, Tamil Nadu, 2012, pp. 262-265.	
3.	Judith Justin, **R.Vanithamani,** R.Renee Christina, Comparative Study of Retinal Vessel Segmentation Methods, **2015 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC),** December, 2015. pp.67-69	978-1-4799-7849-6
4.	**R. Vanithamani,** R. Dhivya,S. Sharmili, A novel hybrid technique for visual enhancement of medical ultrasound images, **2015 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC),** December, 2015.pp.- 43-46	978-1-4799-7849-6
5.	R Sudarmani, **R Vanithamani**, Minimum spanning tree for clustered heterogeneous sensor networks with mobile sink, **IEEE International Conference on Computational Intelligence and Computing Research (ICCIC),** December, 2015, pp. 24 - 29.	978-1-4799-7849-6
6.	R. Renee Christina, R. Vanithamani & R.Dhivya, Dental caries Detection using NIR Imaging Techniques, IET Digital Library, pp.1-4, 2016	978-1-78561-786-7
7.	Aneesha Rappai, Vaishnavi.R, **Vanithamani.R**, Ubiquituous Monitoring and tracking System by utilizing Wireless Communication, National Conference on Recent Innovations in Healthcare Technologies *(NCRIHT' 17*) April 10, 2017, pp.76-78	978-93-80-769-90-5
8.	Hari Priya. A, **Vanithamani. R** , Nurse Alert System through Android Proceedings of National Seminar on Innovations in Biomedical Devices *NSIBD'17,* pp. 39-43.	978-93-84-234-44

Patents Filed:

S. No	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency / Country	Status
1.	Device and method of an Infrared Camera to detect dental caries and its image is captured and stored in a computer / mobile phone for further	Renee Christina, Judith Justin, **R.Vanithamani**	201741015393 A		India	Examination stage

processing or Second Opinion					

i. List of project completed indicating briefly title, sponsoring agency, duration and outcome of project.

Research Projects Completed:

S. No	Title of the project	Investigators	Funding agency	Amount sanctioned	Duration	Outcome
1.	Blood Vessel Segmentation by Fuzzy C Means Clustering to diagnose Diabetic Retinopathy	PI: Dr. Judith Justin **Co-PI: Dr. R.Vanithamani**	Indian Council of Medical Research (ICMR)	**Rs. 20, 56,000/-**	12.05.2015 – 11.05.2018 (3 years)	Prototype with mobile App