BIO DATA

Personal Details

Name	:	**Dr. K. B. JAYANTHI**
Designation	:	Professor/HOD
Date of Joining	:	01/06/1999
Nature of Association	:	Regular
Email	:	hodece@ksrct.ac.in

Academic Profile

S.No	Qualification	Institution	Board / University	Full Time/ Part Time	Percentage / CGPA	Year of passing	Class Obtained
1.	Ph.D.	Anna University Chennai.	Anna University	Part Time		Sep-2008	`
2.	M.E	Government College of Technology, Coimbatore	Anna University	Part Time		July-1999	
3.	B.E	Government College of Engineering, Salem.	Anna University	Full Time		May 1994	

Employment details with Experience:

S.No.	ORGANIZATION	DESIGNATION	PERIOD		YEAR OF EXPERIENCE
			FROM	TO	
1.	K.S.Rangasamy College of Technology, Tiruchengode.	Professor	01/06/2010	-	9.3
2.		Assistant Professor	01/06/2002	31/05/2010	8.0
3.		Senior Lecturer	01/06/2000	01/05/2002	1.11
4.		Lecturer	01/06/1999	31/05/2000	1.0

Total	20.2	

Awards Received

1. Received BEST PROFESSOR AWARD for the year 2012 from Women development cell, GCE Salem.
2. Received BEST WOMEN FACULTY AWARD for the academic year (2018-2019) from Nature Science Foundation

Funds Received

1. Received a sum of Rs.25,000 from CSIR for the National seminar on "Blockchain Technology : Application Domain and Research Challenges' 05.07.2019-06.07.2019
2. Received a sum of Rs. 50,000 from SERB, DST for the National seminar on 'Deep learning Challenges in Big Data Analytics' 10.08.17-11.08.17
3. Received a sum of Rs. 50,000 from ICMR for a seminar on 'Deep learning: Smart tool for big data analytics in Health care' 22.07.17-23.07.17
4. Received a sum of Rs. 1 lakh from Ministry of Earth Sciences for a workshop on 'Cognitive Geodesy Image Processing and Remote Sensing' 20.06.17-21.06.17
5. Received a sum of Rs. 26.3 lakhs for the project titled, 'Development of computational tool for early detection of cardiovascular diseases through analysis of data from otherwise healthy individuals' from Department of Biotechnology for a period of 3 years (January 2017)
6. Received a sum of Rs. 40,000 from Department of Biotechnology for conducting the seminar on 'Translational Engineering in Medicine: A Bridge to Improve the Quality of Healthcare' during 15-16 April 2016.
7. Received Travel grant from Department of Bio Technology for presenting the paper in the third annual International Conference GlobalSIP of the IEEE Signal Processing Society in Orlando, Florida, USA from 14th December to 17th December 2015.
8. Received a grant of Rs. 5.6 lakhs for the Major Research Project titled 'Automated Karyotyping of G-Band Chromosome images' from UGC in June 2015 for a period of 3 years.
9. Received the International Travel Support grant from Department of Science and Technology for presenting the paper in the thirty-fourth annual International Conference of the IEEE EMBS held in SanDiego, USA from 28th August to 1st September 2012.
10. Received the grant Rs. 7 Lakhs from AICTE for organizing the Staff Development Program on 'Image Processing and its Application: A Decision Support system for Health Care' conducted from 30th April to 11th May 2012.
11. Received the grant Rs. 10 Lakhs from AICTE under Research Promotion Scheme for the project titled 'An Image Processing system for Early Detection of CardioVascular Diseases ' for a period of 2 years.(Jan 2012-2014)
12. Received the grant Rs. 3 Lakhs from AICTE for organizing the Staff Development Program on 'Pattern Recognition through Medicine : A Knowledge Engineering Approach' conducted from 20th June to 1st July 2011.
13. Received a grant of Rs.50,000 from Department of BioTechnoogy for conducting the National Seminar on 'Pattern Recognition in Medical Imaging' from 25th March to 26th March.
14. Received a grant of Rs.7.82lakhs from AICTE under MODROB scheme for enhancing VLSI laboratory.
15. Received the grant Rs. 2 Lakhs from AICTE for organizing the Staff Development Program on 'Current and Future Trends in Medical Image Processing and Analysis' conducted from 15th to 27th June 2009.

16. Received the International Travel Support grant from Department of Science and Technology for presenting the paper in the Sixth International Conference on Information Technology : New Generations held in Las Vegas, USA from 27th April to 29th April 2009.

List of Publications

	INTERNATIONAL JOURNALS
1.	Nirmala Madian, Jayanthi K B, D Somasundaram, S Suresh, 'Identifying Centromere Position of Human Chromosome Images using Contour and Shape based Analysis', Measurement 144 (2019) pp.243-259. https://doi.org/10.1016/j.measurement.2019.05.029
2.	Sudha S, **Jayanthi K B**, Rajasekaran C, Nirmala Madian, Sunder T, 'Convolutional Neural Network for Segmentation and Measurement of Intima Media Thickness',Journal of Medical Systems (2018) 42: 154, https://doi.org/10.1007/s10916-018-1001-y
3.	C. Rajasekaran, **K.B.Jayanthi**, Nirmala Madian, 'Glucose Monitoring system using Nano Pellets', IET Nanobiotechnology, vol.11, issue1, Feb 2017, pp.91-95 DOI: 10.1049/iet-nbt.2016.0037
4	Nandakumar Ramasamy and **Jayanthi K B**, ' Automated Boundary Detection and Measurement of Common Carotid Artery Attributes Using Transversal B –Mode Ultrasound Images', Australian Journal of Basic and Applied Sciences, vo. 9, no.27, 2015, pp. 181-186
5	R.Nanda Kumar and **K.B.Jayanthi, '**Mathematical modeling of Common CarotidArtery using Polynomial interpolation by automated lumen segmentation and estimation of numerical attributes', International Journal of Applied Engineering Research, Vol. 10 No.20, 2015, pp 18836- 18842
6	M. V. Jithin Kumar and **K. B. Jayanthi**, "A Low-Power Hybrid Multiplication Technique for Higher Radix Hard Multiples Suppression", Indian Journal of Science & Technology, Volume 8, Issue 13, July 2015. ISSN: 0974-5645.
7	Anmy John, **K.B.Jayanthi**, 'Extraction of Cardiac Chambers from Echocardiographic images, International Journal of Engineering Research and Technology, Vol.3 Issue 4, April 2014.
8	Nirmala M**, K B Jayanthi** , 'Analysis of human chromosome classification using centromere position', Measurement, Elsevier, vol.47 and pp.287 - 295 , January 2014.
9	**K.B.Jayanthi** and R.S.D. Wahida Banu**, '**Classification of cardiovascular diseases using Artificial Neural Network', International Journal of Biomedical Signal Processing, January 2010, vol.1-issue 1, pp.29-33.
10	R.Nanda Kumar and **K.B.Jayanthi, '**A CAD System for lung nodule detection using Neural Network', International Journal of BioMedical Engineering and Consumer Health Informatics, January 2009, vol.1-issue 1, pp.35-38.

11	Jinsa Kuruvilla and **K.B.Jayanthi,** 'Boundary Extraction of medical images with canny segmentation using VHDL', International Journal of Computational Intelligence and Healthcare Informatics', vol.2, pp.21-24, June 2009.
12	**K.B.Jayanthi** and R.S.D. Wahida Banu**, '**Carotid artery boundary extraction for the analysis of cardiovascular diseases', International Journal of Medical Engineering and Informatics, January 2009, vol.1-issue 3 , pp.290-297
13	**K.B.Jayanthi** and R.S.D. Wahida Banu**, '**A non-invasive study of Alterations of the Carotid artery with age using Ultrasound images' , Journal of Medical and Biological Engineering and computing, Springer, vol.44, pp.767-772, September 2006.
National & International Conference	
01.	Kiruthika P,**Jayanthi K B**,Nirmala Madian, 'Classification of metaphase chromosomes using deep learning neural networks', Proceedings of 4th International conference on Frontiers in signal Processing (ICFSP 2018), 24-27 September, 2018, Poitiers, France.
02.	**K B Jayanthi**, Nirmala Madian, Kiruthika P, 'Chromosome Banding for Karyotype Based on Fractional Order Derivative', Proceedings of TENCON 2017, IEEE Region 10 Annual Conference5-8 November 2018, Penang, Malaysia.
03.	M. Nirmala and **K.B.Jayanthi**, 'Contour Based Segmentation of Chromosomes in GBand Metaphase Images' Proceeding of the 3rd IEEE Global conference on Signal and Information Processing (Global Sip 2015).
04.	R.Nanda Kumar and **K.B.Jayanthi, '**Mathematical modeling of Common Carotid Artery using Polynomial interpolation by automated lumen segmentation and estimation of numerical attributes', Proceedings of the IEEE sponsored second international conference on Innovation Embedded and Communication System (ICIIECS) 2015, vol.2, pp.1019-1026.
05.	S.Divya and **K.B.Jayanthi, '**Analysis of contour evolution methods for segmentation of medical images', Proceedings of the IEEE sponsored second international conference on Innovation Embedded and Communication System (ICIIECS) 2015, vol. 5, pp.388-391.
06.	Merin Varghese, **K.B.Jayanthi**, 'Contour segmentation of Echocardiographic images, Proceedings of the IEEE International Conference on Advanced Communication control and computing Technologies (ICACCCT), pp.1493-1496
07.	Anmy John, **K.B.Jayanthi**, 'Extraction of Cardiac Chambers from Echocardiographic images, Proceedings of the IEEE International Conference on Advanced Communication control and computing Technologies (ICACCCT), pp.1231-1234.
08.	R.Nanda Kumar and **K.B.Jayanthi, '**Automated lumen Segmentation and estimation of numerical attributes of common carotid artery using longitudinal B-mode images', Proceedings of the IEEE Point-Of-Care Health Care Technologies (PHT), Bangalore, ndia 16-18 January, 2013, pp.306-09.
09.	Aswathy M A, Santha S and **K.B.Jayanthi, '**Analysis of the performance of various algorithms for the segmentation of the Carotid Artery', Proceedings of the IEEEPoint-Of-Care Health Care Technologies (PHT), Bangalore, India 16-18 January, 2013, pp.322-325.

10.	M.Nirmala and **K.B.Jayanthi, '**Overlapped Chromosome Segmentation and Separation of Touching Chromosome for Automated Chromosome Classification', Proceedings of the 34th Annual International Conference of the IEEE EMBS, San Diego, USA August 28-September 1,2012 ,pp.5392-5395.
11.	M. Rejusha and **K.B.Jayanthi,** 'Implementation of VLSI – oriented FELICS Algorithm using Pseudo Dual-Port RAM', Proceedings of the International Conference on Pattern Recognition, Informatics and Medical Engineering (PRIME 2012), pp.68-73.
12.	M. Rejusha and **K.B.Jayanthi,** 'Analysis of Felics algorithm using synopsis', Proceedings of the International Conference on Advances in Electrical and Electronics, Information, Communication and Bio-Informatics (AEEICB), 2012, pp.323-326.
13.	R.Ramya and **K.B.Jayanthi,** 'Automatic image segmentation by graph cuts for biomedical applications', Proceedings of the International Conference on Advances in Engineering, Science & Management (ICAESM 2012), pp.406-409.
14.	R.Ramya and **K.B.Jayanthi,** 'Multiregion Image Segmentation by Graph Cuts for Brain Tumour Segmentation', Proceedings of the International Conference on Science, Engineering & Technology (ICSET 2011), pp.329-332.
15.	**K.B.Jayanthi** and R.S.D. Wahida Banu**, '**Neural Network Based Classifier for Cardio Vascular Diseases Based on Vascular Aging', Proceedings of the 33rd Annual International Conference of the IEEE EMBS Boston, USA August 30-September 3,2011 ,pp.1109-1112.
16.	M.V. Jithin Kumar and **K.B.Jayanthi**, 'A well-configured Low Power 0.25μm CMOS Re-Modified Booth Multiplier', Proceedings of an International Conference on Optoelectronics, ICT-(ICOICT 2009) pp.393-396.
17.	Jinsa Kuruvilla and **K.B.Jayanthi, '**Boundary extraction of medical images with canny segmentation using VHDL', Proceedings of the International conference on VLSI and communication, April 2009
18.	**K.B.Jayanthi** and R.S.D. Wahida Banu**, '**Carotid Artery Boundary Extraction Using Segmentation Techniques: A Comparitive Study', Proceedings of the Sixth International Conference on Information Technology: New Generations (ITNG 2009), April 2009, pp.1290-1295, Las Vegas, USA.
19.	R.Nanda Kumar and **K.B.Jayanthi, '**A Neural Network Based Classifiers for Diagnosis of Cardiovascular Diseases', Proceedings of the International Conference on Medical Informatics and Telemedicine, December 2008, Vol.1,pp.7-8.
20.	**K.B.Jayanthi,** R.S.D. Wahida Banu, M. Sathish Kumar, **'**Segmentation of carotid artery using wavelets for the analysis of cardiovascular diseases', Proceedings of the Fourth IASTED International conference on Telehealth and Assistive Technologies, Maryland, USA, April 2008, Vol.1, pp.156-161.
21.	**R. Nanda Kumar** and **K.B.Jayanthi, '**A Neural network classifier for lung Nodule detection', Proceedings of the International symposium on Global trends in Bio- Medical Informatics, Research, Education and Commercialization, Chennai, January 2008, Vol.1, pp.27.
22.	**K.B.Jayanthi** and **R.S.D. Wahida Banu, '**Boundary extraction of Medical images from Ultrasound B- Mode Images for supporting clinical decisions', Proceedings of the International symposium on Global trends in Bio-Medical Informatics, Research,

	Education and Commercialization, Chennai, January 2008,Vol.1, pp.20.
23.	**K.B.Jayanthi** and **R.S.D. Wahida Banu, '**Wavelet Segmentation of Carotid artery ultrasound images in M- Mode', Proceedings of the First International Conference on 'Frontier Technologies – Need for Business, Industry and Education', September 2006,Vol.1, pp.318-323.
24.	**K.B.Jayanthi** and **R.S.D. Wahida Banu, '**Arterial Alterations with Age- A Non invasive study of carotid artery using ultrasound images', Sixth IEEE International Conference on Electro/Information Technology, Michigan State University, USA, May 2006, Vol.1, pp-1-4.
25.	Tha. Sugapriyaa and **K.B.Jayanthi,** 'Segmentation and extraction of chromosomes from G-Band metaphase images', Proceedings of the National conference on Electronics Systamatics Informatics and Cybernetics, ESIC, 2011, Vol.1,pp.11-16.
26.	C. Indumathy and **K.B.Jayanthi,** 'Analysis of segmentation algorithms for chromosomes', Proceedings of the National conference on VLSI Design and Image Processing, NCVLSI, 2011, Vol.1,pp.244-247.
27.	R.Nanda Kumar and **K.B.Jayanthi, '**Integration of Generic Skills in Engineering Education: Paradigm Shift', 13th ISTE Annual Convention on Emerging Trends in Engineering Education – Indian Perspective, 29th and 30th October 2010, Vol.1,pp.7-8
28.	**K.B.Jayanthi** and **Niji.M ,** 'Implementation of boundary extraction with Shen-castan algorithm using VHDL', Proceedings of the National conference on Emerging Trends in RF and Signal Processing, FISAT, 2009, Vol.1,pp.26-31.
29.	**K.B.Jayanthi** and **Prasad.B,** 'Detection of Neural Tube and Central Nervous system Defects in Fetal Brain', in Proceedings of the Fourth National Conference on Trends in communication, NCTC-10, 2010.
30.	**K.B.Jayanthi** and **Jinsa Kuruvilla,** 'Implementation of boundary extraction with canny segmentation in FPGA', National conference on advances in communication systems. March 2009.
31.	**K.B.Jayanthi** and **V. Shiyamala gowri,** 'Analysis of Various Clustering Algorithms on Medical Image Segmentation', Recent trends in Electrical, Electronics, Instrumentation and Communication Engineering, March 2008, pp.52-57
32.	**K.B.Jayanthi** and **P.Oormila,** 'Analysis of the performance of SPIHT and TSIHT Algorithm on image compression', National Conference on Trends in Communication, February 2008, pp.55-60
33.	**K.B.Jayanthi** and **S.Poornima Devi,**' Automatic Boundary extraction of carotid artery in ultrasound image using wavelet & fuzzy', First National Conference on recent trends in VLSI, signal Processing Communication & Embedded Technology, April 2007.
34.	**K.B.Jayanthi** and **S.Poornima Devi,**' Automatic Boundary extraction of carotid artery in ultrasound image using wavelet & fuzzy', First National Conference on recent trends in VLSI, signal Processing Communication & Embedded Technology,April 2007.

35.	**K.B.Jayanthi** and **J.Rajalakshmi,** 'Wavelets for segmentation of common aeotid artery using ultrasound images, First National Conference on recent trends in VLSI, signal Processing Communication & Embedded Technology, April 2007.
36.	**K.B.Jayanthi** and **J.Rajalakshmi,** 'Multiresolution Medical Image Segmentation Based on Wavelet transform', Proceeding of the second National conference on Recent Trends in Electrical and Instrumentation and communication engineering, March 2007.
37.	**K.B.Jayanthi** and **S.Poornima Devi,** 'Wavelet Segmentation for ultrasound image using Fuzzy C-Mean', Proceeding of the second National conference on Recent Trends in Electrical and Instrumentation and communication engineering, March 2007.
38.	**K.B.Jayanthi** and **R. Nanda Kumar,** 'A Neutral Network Based classifier for Lung Nodule Detection', National conference on Recent trends in Electrical, Electronics, Instrumentation and Engineering, April 2006, pp.7-8.
39.	**K.B.Jayanthi** and **R.Manjula,** 'An improved VLSI Architecture for Advanced Diamond zonal Search Algorithm', National conference on Communication Technology, March 2006, pp.397-399.
40.	**K.B.Jayanthi** and **P.Santha,** 'Boundary Extraction for Carotid Artery ultrasound Images',National conference on Communication Technology, March 2006,pp.246- 248.
41.	**K.B.Jayanthi** and **S.Mohanraj,** 'Efficient Wavelet Coding for Digital Mammography', National conference on Recent trends in Communication Techniques (NATCON'04), April 2004, pp.47-50
42.	**K.B.Jayanthi** and **S.Mohanraj,** 'Image Compression using Discrete Wavelet Transform', National conference on Recent trends in Communication Techniques (NATCON'04), April 2004, pp.82-85.
43.	**K.B.Jayanthi, N. Santhiya kumari** and **K.Duraisamy,** 'Selective Lossless Coding of Medical Volumes using Integer Wavelet Transform', National Conference on Innovation in Information and Communication Technology, March 2003, pp.164-168

List of Workshops / Seminar / STTP/FDPs Organized

Sl. No.	Title	Venue	Duration	Sponsoring Authority
Workshop/Seminar				
1.	Pattern Recognition through Medicine : A Knowledge Engineering Approach		20th June to 1st July 2011	
2.	Pattern Recognition in Medical Imaging		25th March to 26th March	
3.	Current and Future Trends in Medical Image Processing and Analysis		15th to 27th June 2009	AICTE
4.	Electromagnetic Fields		7th to 19th November 2005	Anna University

Sl.				
5.	Naional Conference on Emerging Trends in Communication Technology		15th to 16th October 2004	
6.	Second National Level Conference on Emerging Trends in Communication Technology		5th to 6th March 2005	

List of Workshops / Seminar / STTB/FDPs Attended

Sl. No.	Title	Venue	Duration	Sponsoring Authority
Workshop/Seminar				
01.	Workshop on Image Processing	Thiagarajar College of Engineering	19.09.2003-20.09.2003	
02.	DSP Tools for Research in Engineering and Technology	V.M.K.V. Engineering College	17.07.1994	
03.	An Introductory Course in Digital Signal Processing and its Applications	Amrita Vishwa Vidyapeetham	22.11.2004-03.12.2004	
04.	Advanced Signal Processing Techniques	Coimbatore Institute of Technology	23.02.2006-24.02.2006	
05.	Workshop on Computer Networking	Anna University, Chennai	14.10.2006	
06.	Workshop on Research Methodology in Computer Science	K.S. Rangasamy college of Technology	11.08.2007	
07.	National Symposium on Acoustics	K.S. Rangasamy college of Technology	5.12.2007 - 7.12.2007	
08.	ISTE Conference on Engineering Education	Anna University, Coimbatore	26.06.2008-27.06.2008	
09.	Workshop on Tanner Tools	K.S. Rangasamy college of Technology	9.08.2008	
10.	Mathematical Methods in Image Processing	PSG College of Technology	23.10.2009-24.10.2009	
11.	Building Competitiveness in Higher Education	Confederation of Indian Industry	22.01.2010	

12.	IEEE Distinguished Lecture Programme	IEEE EDS India Chapter	09.04.2010	
13.	Workshop on 'Engineering Pedagogy'	SDMIT, Ujire, Karnataka	29.07.10 - 31.07.10	
14.	International Workshop on 'Biomedical Sciences and Technologies'	Anna University, Chennai	2.3.2011 - 4.3.2011	
15.	High Impact Teaching Skills	Wipro Mission 10X	13.09.2011- 14.09.2011	
16.	Emotional Intelligence	ICT Academy at Vivekanandha College of Engineering for Women	18.07.2018- 19.07.2018	
17.	Deep Learning	Institute of Management Technology (IMT) - Hyderabad	07.01.2019- 08.01.2019	
18.	Data Analytics using Statistical Learning with Hand-on in R	Amrita Vishwa Vidyapeetham.	06.06.2019- 08.06.2019	

Invited lectures

1. Chaired the session on 'Computer, Information Technology and Application' in the 4th International conference on Frontiers in Signal Processing, 24-27 September, 2018, Poitiers, France.
2. Invited Speaker in IEEE Region 10 Annual Conference,'TENCON 2018' held in Penang, Malaysia between 5-8 November 2017.
3. Travelled to Jeju islands, South Korea for receiving the IEEE EMBS Best Student Chapter Award for KSRCT awarded during the opening ceremony of the 39th Annual International Conference of the IEEE EMBS Society on 12th July 2017.
4. Chaired a session in the 3rd IEEE Global conference on Signal and Information Processing (Global Sip 2015) on December 16, 2015 in Orlando, Florida.
5. Attended the IEEE Women in Engineering (WIE) International Leadership conference from 1st May to 3rd May 2014 held in Sanfrancisco, USA.

Details of Membership In Professional Societies

S. No.	Name of Professional Body	Grade of Membership	Membership No.
1	IEEE	Senior Member	41277578
2	ISTE	Life Member	LM 37999
3	IETE	Life Member	M-217685

Jayanthi K B