

## ELECTRONICS & COMMUNICATION ENGINEERING RESEARCH CENTRE

Name of the College: K.V.G. College of Engineering



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY,  
"Jnana Sangama"  
Belagavi – 590018, Karnataka State.**

Name of the Recognized Research centre	<b>Electronics &amp; Communication Engineering</b>
Year of Est. as Research Centre	<b>2013-14</b>
Number of Eligible Supervisors	<b>06</b>
Number of Candidates Registered for Ph.D.	<b>05</b>
Number of Candidates Registered for M.Sc. (Engg.) by Research	-
Number of faculty with Ph.D.	<b>06</b>
Number of Professors in the department	<b>04</b>
Number of Assoc. Prof. in the department	<b>02</b>
Number of Asst. Prof. in the department	<b>06</b>

## Details of Research Supervisors

Sl. No.	Name of the Research Supervisor	Name of the University from which Ph. D is awarded	Year of Award	Specialization	Department	No. of Candidates Registered for		Status of Completion		
						Ph. D.	M.Sc. (Engg.)	No. of Candidates completed Course Work	No. of Candidates completed Comprehensive Viva-Voce	No. of Candidates completed Submitted Final Thesis /Awarded
1.	Dr. Keshaveni N	VTU, Belagavi	2011	Video Processing, VLSI Design	E&C	03	--	01	01	01
2	Dr. Ravikumar M S	VTU, Belagavi	2012	Image Processing	E&C	05	--	04	03	03
3.	Dr. Suresha V	VTU, Belagavi	2020	Wireless communication,	E&C	-	--	--	--	--
4	Dr. Kusumadhara .S	VTU, Belagavi	2021	Image Processing	E & C	--	--	--		
5	Dr.Savitha.M	REVA University Bangalore	2020	Mixed Mode VLSI	E & C	--	--			
6	Dr. Bhagya H K	VTU, Belagavi	2021	Image Processing	E & C	--	--			

## Details of Research Scholars

Sl. No.	Name of the Research Scholar	Dept.	Registered for			Status of Completion of		
			Year of Registration	Ph.D.	M.Sc. (Engg.) by Research	Course work [Y/N]	Comprehensive Viva-Voce [Y/No]	Submitted Final Thesis / Awarded [Y/N]
1.	Mrs. Divya A K	E & C	2016	Yes	-	Y	Y	N
2.	Mr. Gurusandesh		2017	Yes	-	N	N	N
3.	Mrs. Kanmani		2017	Yes	-	N	N	N
4.	Mr. Anil B V		2014	Yes	-	Y	Y	Y/N
5.	Mr. Venkatesh U C		2019	Yes	-	Y	N	N

## Publication Details

Sl. No.	Name of the Research Supervisor/ Research Scholar	Title of Paper	Publication Citation	National	International
1.	Dr. Keshaveni N	Contrast Enhancement Technique using Discrete Wavelet Transform with Just Noticeable Difference Model for 3D Stereoscopic Degraded Video	International Journal of Innovative Technology and Exploring Engineering (IJITEE), vol.10 no.3, Jan. 2021	-	International
2.		Enhancement on Edge and Reduction of Noise in Low Light Videos using Discrete Wavelet Transform with JND Model	International Journal of Solid State Technology, vol. 63, no.6, Nov. 2020	-	International
3.		Video Enhancement using Histogram Equalization with JND Model	Journal Publication on (July 2019)	-	International
4.		Contrast Enhancement Techniques for Foggy Videos	International Journal IJGM, Jan.-Dec 2019, IF: 6 No.18	-	International
5.		"Video enhanced using nietergen eualization with JND model"	International Journal July 2019, IJRTE, IF: 5.99	-	International
6.		Review on Video Enhancement Techniques	International Journal of Engineering Science Invention Research & Development, Aug. 23 <sup>rd</sup> . 2016	-	International
7.		Review on video enhancement techniques	Vol. 3, Issue 2, e- ISSN : 2349-6185, , IF=2.215, 23 August 2016	-	International
8.		Utilizing image classification based semantic recognition for personalized video summarization	Vol. 9, No.1, ISSN 0975-6450, pp. 15-27. Indexed in EBSCO host, GOOGLE Scholar, Journal Seek, Index Copernicus, IF=5.98. January 2017	-	International
9.		Improving breakdown voltage in LDMOS with doped silicon pockets in buried oxide	Vol.10, issue 1, ISSN 0974-6846, Impact factor 6.3. (Thomson indexed). January 2017	-	International
10.		N_channel LDMOS with STI for breakdown voltage enhancement and improved RON	Vol.95, No. 2, ISSN 1992-8645, Impact factor 4.14. (Scopus Indexed). January 2017	National	-

RESEARCH CENTRE -2022-23

11.	Dr. Keshaveni N	Personalized Summary Representation of Video Summaries	Vol. 12, ISSN 0973-4562, Number 2, September 2017.	-	International
12.		Experimental Evaluation of Domain-Independent Video Summarization Approaches	Vol. 5, issue 2, ISSN: 2394-8442. February2018	National	-
13.		Personalized Summary Representation of Video Summaries	IJAER, Vol. 12, ISSN 0973-4562, Number 2, September 2017.	-	International
14.		Experimental Evaluation of Domain-Independent Video Summarization Approaches	JARAS, Vol. 5, issue 2, ISSN : 2394-8442February2018	National	-
15.		Video Enhancement using Histogram Equalization with JND Model	Volume 8, Issue 2, July 2019, pp.2506-2511; ISSN Print: 2277-3878 IF: 5.92	-	International
1.	Dr. Ravikumar M S	Face segmentation in video Frames Using Adaptive Morphological Face Template	International Conference IEEE Explorer September 2018.	-	International
2.		Lossless Compression of Digital Mammography using Base Switching Method	Journal of Biomedical Science and Engineering (JBISE), Scientific Research Publications, USA 2009, ISSN:1937-6871, vol.2, no.5, pp. 336-344, Sept.2009.	-	International
3.		A Novel Lossless Compression Algorithm for Digital Images	Computer Engineering and Information Technology (IJCEIT), Scientific Engineering Research Corporation, New-Delhi Publication 2008	-	International
4.		Lossless Compression of Digital Mammography using Fixed Block Segmentation and Pixel Grouping	IEEE 6 <sup>th</sup> Indian Conference on Computer Vision Graphics and Image Processing (ICVGIP 2008)	-	International
5.		Modified Base Switching Transformation for the Lossless Compression of Digital Images,	International Conference on Advanced Computing and Communication Technologies. 2008	-	International
6.		Comparison of Linear Prediction Schemes for the Lossless Compression of Digital Images"	International Conference on Signal and Image Processing at VVIT, Mysore held during 12 <sup>th</sup> -14 <sup>th</sup> August 2009.	-	International

RESEARCH CENTRE -2022-23

7.	Dr. Ravikumar M S	A Co-Saliency Model of Image Pairs	National Conference on Advanced Computer Applications (NCACA-12), SIT, Tumkur, pp. 52-56, May 10 <sup>th</sup> and 11 <sup>th</sup> 2012.	National	-
8.		Decomposition of Style and Content Parameters using Asymmetric Bilinear Model for Spectral Voice Conversion	National Conference on Advances in Computer Applications (NCACA-12), SSIT, Tumkur on 10 <sup>th</sup> and 11 <sup>th</sup> , May, 2012	National	-
9.		Myocardial Infarction Detection in ECG using Bi-orthogonal Wavelet Transform	National Conference on Advances in Computer Applications (NCACA-12), SSIT, Tumkur on 10 <sup>th</sup> and 11 <sup>th</sup> , May, 2012	National	-
10.		Lossless Compression of Digital Images using Base Switching Method: Computer Vision, Pattern Recognition, Image Processing and Graphics	(NCVPRIPG-10) National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics, held at LNMIIT, Rajasthan, during Jan 15 <sup>th</sup> - 17 <sup>th</sup> 2010.	National	-
11.		Lossless Image Compression using fixed block segmentation and pixel grouping”	National Level Technical Paper Presentation (Technovation-08) , R V College of Engineering, B’lore	National	-
12.		Lossless Image Compression using fixed block segmentation and pixel grouping	National Level Technical Paper Presentation (Technovation-08) R V College of Engineering, B’lore, 2008	National	-
1.	Dr. Suresha V	Energy Efficient Vertical Handoff Model for Wireless Body Area Networks (WBANs) in Ubiquitous Healthcare System	International Journal of Scientific & Engineering Research Volume 9, Issue 7, July-2018, ISSN 2229-5518	-	International
2.		Enhanced Vertical Handoff Decision Approach for the Multimedia Data in Heterogeneous Wireless Network”	Vol.08, N- 1, pp. 18-15, 2018.(UGC)	-	International
3.		Multi Attribute Vertical Handoff Algorithm for Heterogeneous Networks”	Vol. 02, N-3, pp. 22–27, 2017. (Scopus Index)	-	International
1.	Mrs. Bhagya H K	Contrast Enhancement Technique using Discrete Wavelet Transform with Just Noticeable Difference Model for 3D Stereoscopic Degraded Video	International Journal of Innovative Technology and Exploring Engineering (IJITEE), vol.10 no.3, Jan. 2021	-	International

RESEARCH CENTRE -2022-23

2.	Mrs. Bhagya H K	Enhancement on Edge and Reduction of Noise in Low Light Videos using Discrete Wavelet Transform with JND Model	International Journal of Solid State Technology, vol. 63, no.6, Nov. 2020	-	International
3.		Video Enhancement using Histogram Equalization with JND Model	Journal Publication on (July 2019)	-	International
4.		Contrast Enhancement Techniques for Foggy Videos	International Journal IJGM, Jan.-Dec 2019, IF: 6 No.18	-	International
5.		Video enhanced using nietergen eualization with JND model	International Journal July 2019, IJRTE, IF: 5.99	-	International
6.		NBPC Based Contrast Enhancement Techniques for Fog Videos	ICSIP – 2017, 18th and 19th August 2017 at Mysuru.	National	-
7.		Review on video enhancement Techniques	International Journal of Engineering Science Invention and development, Vol. 3, Issue 2, e-ISSN: 2349-6185, August 2016. Author	-	International
8.		NBPC Based Contrast Enhancement Techniques for Fog Videos	ICSIP – 2017 18th and 19th August 2017 at Mysuru.	-	International
9.		Design of Adaptive state aware routing algorithms (ASARA) for data aggregation in HWN	“TECHZONE 2014” A National Technical symposium, Jawaharlal Nehru National College Of Engineering Bengaluru. 7 <sup>th</sup> to 9 <sup>th</sup> March 2014.	National	-
10.		An area efficient and dynamic power management boostable repeater design for variation resilience in VLSI interconnects	A novel approach of partial encryption for video encoding" National Conference On Electrical And Electronics Engineering NCEEE 2014, HKBK college of engineering Bengaluru, 5th June 2014.	National	-
11.		Review on Video Enhancement Techniques	International Journal IJESIRD International Journal of Engineering Science Invention and development, Vol. 3, Issue 2, e-ISSN: 2349-6185, August 2016. Author	-	International
12.		A novel approach of partial encryption for video encoding	National Conference On Electrical And Electronics Engineering NCEEE 2014, HKBK college of engineering Bengaluru, 5th June 2014.	National	-



RESEARCH CENTRE -2022-23

13.	Mrs. Bhagya H K	Lossless Compression Algorithms for General Images	National Level Technical Paper Presentation (Technovation-08) Don Bosco Institute of Technology, NMAMIT, Nitte, Vidyavardhaka College of Engg., Mysuru, 2008	National	-
14.		Implementation of Fast Computation of 2-D DWT on FPGA using pipeline VLSI Architecture	International conference on Electronics & Communication Engineering, on 24th April 2013 Bengaluru	-	International
15.		Image mosaicing using corner technique by RANSAC algorithm	International conference on Electronics & Communication Engineering (ICECE) on 24th April 2013, Bengaluru	-	International
1.	Mr. Anil B V	Face Segmentation in video Frame using Adaptive Morphological Face Template	International Conference on Feb. 2019 Publisher: IEEE, Conference Proceedings		
2.		Face Segmentation in Video Frames Using Adaptive Morphological Face Template,	International Journal Published in IEEE Explore Digital Library, 2018		
3.		Face Segmentation in Video Frames Using Adaptive Morphological Face Template.	International Conference at NIE Inst. of Technology, Mysuru, 2018		
4.		Face segmentation in video Frames Using Adaptive Morplogical Face Template	International Conference IEEE Explorer September 2018.	-	International
5.		Braille Writer Cum Translator with Echo – A Novel Approach	International Conference Springer In at NMIT, Bengaluru on 31-07-2015	-	International
6.		PAPR reduction of OFDM signals using distortion compensated optimized ICF technique	Sixth National Conference On Recent Trends In Electronics And Communication Engineering NCRTEC 2014, SJB Institute Of Technology, Bengaluru on 10th May 2014.	National	-
7.		Biomedical Engineering – NCBME 2007	National Conference at MIT, Manipal	National	-

RESEARCH CENTRE -2022-23

8.	Mr. Anil B V	Multiple Sclerosis Lesion Classification on MRI using ANN	Paper published in International journal on Computer Engineering & Information Technology (IJCEIT) Vol.1, No.1, Nov. 2008-Jan.2009.	-	International
9.		Multiple Sclerosis Lesion Classification on MRI using ANN	National conference on Research Challenges in Computation and Information Technology (RCCIT 2009).	National	-
10.		Detection and extraction digital water mark using DCT and DWT	National conference on computer communication and advanced computing (NCCCAC-2012) at sambhram Institute of technology Bengaluru on 24 & 25th Aug.	National	-
11.		Online object tracking using visual prior	International conference on Electronics & Communication Engineering (ICECE-2013) IRD, Bengaluru on 26th May 2013	-	International
1.	Mr. Kusumadhara S	A Framework for Grading of White Chali Type Arecanuts with Machine Learning Algorithms	ISSN: 2277-3878, Volume-8 Issue-6, March 2020 DOI:10.35940/ijrte.F8389.038620	-	International
2.		Segmentation of White Chali Arecanuts using Soft Computing Methods	ISSN: 2278-3075, Volume-9 Issue-7, May 2020 DOI: 10.35940/ijitee.G5848.059720	-	International
3.		Design and development of a distributed Canny Edge detector on FPGA" National Conference On "Recent Advances in Electronics and Communication Engineering"	New Horizone College of Engineering Bengaluru on 23rd May 2014.	National	-
4.		An area efficient and dynamic power management boostable repeater design for variation resilience in VLSI	6 <sup>th</sup> National Conference On Recent Trends In Electronics And Communication Engineering NCRTEC 2014, SJB Institute Of Technology, Bengaluru, 10th May 2014.	National	-
5.		"Comparative analysis of error control codes for image transmission"	National conference on computer communication and advanced computing (NCCCAC-2012) at sambhram Institute of technology Bangalore on 24 & 25 <sup>th</sup> Aug.	National	-

RESEARCH CENTRE -2022-23

6.	Mr. Kusumadhara S	"Implementation of high performance FFT Algorithm for OFDM based Wi-max communication system based on RPGA"	National conference on Emerging Engineering exposition held at Bangalore Institute of Technology Bangalore on 6 <sup>th</sup> April 2013	National	-
7.		"Efficient Routing Protocol in MANETS by using Alert"	National conference on emerging trends in Electronics & Communication Engineering held at CEC Mangalore on 27 <sup>th</sup> April 2013	National	-
1.	Dr. Savitha M Professor, EC	Dual split-three Segment Capacitor Array Design Based Successive Approximation ADC For Io-T	International Journal Publication on (May 2019)	-	International
2.		Dual Split-Three Segment Capacitor Array Design Based Successive Approximation ADC for Io-T Ecosystem	VLSI –the Integration Elsevier Journal		International
3.		14 -bit Low Power Successive Approximation ADC using Two Step Split Capacitive array DAC with multiplexer switching	<i>IEEE, second ICAECC-2018</i>		International
1.	Ms. Ashabharathi S	Highly Robust and Automated Vision based Filamentous Steel Strip Crack Detection System.	ISSN:22239766, vol.10, no.1, pp.109-123, June2020. DOI: 10.5875/ausmt.v10i1.2149	-	International
2.		A Robust Automated Vision Based Filamentous Steel Strip Crack Detection System Based on Neuron	ISSN: 2277-3878, vol.8, Issue-6, pp.2940-2952, March 2020. DOI:10.35940/ijrte.F8368.038620	-	International
3.		Evolutionary Computing Firefly Algorithm Assisted Fuzzy C-Means Clustering Model for Steel Strip	ISSN:2005-4238, vol.29, no.8, pp.6118-6138,2020. DOI: <a href="http://sersc.org/journals/index.php/IJAST/article/view/34117">http://sersc.org/journals/index.php/IJAST/article/view/34117</a>	-	International

## Details of Existing Research Facilities

Sl. No.	Facility available	Details of Funds Spent in lakhs	
1	Analog Electronic Circuit	1) CRO 2) Function Generator 3) Power digital Meters 4) Analog Meters 5) Voltage Stabilizer 6) Decade Boxes 7) Stepper motor 8) Projector	6.93
2	Logic Design lab	1) Trainers 2) Oscilloscope 3) Power supply 4) Function Generator 5) IC Tester	4.11
3	Analog Communication lab	1) CRO 2) Function Generator 3) Power supply 4) Decade Boxes 5) Digital multimeter 6) Voltage Stabilizer	8.91
4	Advanced Communication lab	1)CRO 2)OFC Kit 3) Communication Kit 4)Microvave Test B Microstrip Equipment 5)Digital multime Voltage stabilizer	10.55
5	Power Electronics lab	1)PIE Modules 2) Oscillscope 3)Power supply 4)Measuring Instrument 5) Decade Boxes 6)Rheostat 7)Inductor 8)Auto Transformer	4.26
6	Microprocessors lab	1)Computer 2)Intex Computer 3) 10KVA UPS D/I/O Cards 4)Interfacing module 5)Project with UPS	32.82
7	Microcontrollers Lab	1)HCL Computer 2)Intex Computer 3)10KVA UPS Microcontroller kit with software 4)Interfacing Module	32.37
8	DSP LAB	1)Computer 2)Intex Computer 3)10KVA UPS 4) DSP Kit with Software 5)Acer Projector	33.3
9	HDL LAB	1) Computer 2) 10KV UPS HDL Development kit with Xilinx software interfacing module 3) Spartan FPGA Board Projector with UPS	15.96
10	VLSI LAB	1)Computer ,10KV UPS 2) Microwind software 3)Mentor Graphics software Licence 4)Projector with UPS	25.28