Name of Faculty	Dr. K.Vasanth	
Designation	Associate Professor	
Nature of Job/Appointment	Regular	
Date of Joining	03-07-2023	
E-mail	vasanthk_ece@cbit.ac.in	

Education Qualifications	Name of the Degree	Class
Ph. D	Doctor of Philosophy (ECE)	Awarded
PG	M. E.(Applied Electronics)	Distinction
UG	B. E. (ECE)	Distinction

Work Experience

Teaching	16 Years
Research	06 Years
Industry	--
Others	--
Area of Specialization	Signal, Image , Video Processing, VLSI Signal Processing
Professional Memberships	FIETE
Responsibilities held at Institution Level	--
Responsibilities held at Department Level	--

Research Guidance	1. Recognized guide by SIST and JNTU for guiding PhD scholars. 2. one (1) Scholar was awarded with PhD. 3. Two (2) Scholars have submitted PhD thesis. 4. Four(4) Scholars are perusing with PhD.
Awards Received	1. Best paper Award at International Conference on Advances in signal processing, VLSI, Communications and Embedded Systems (ICSVCE- 2022) for the work titled "Decoder based VLSI Architectures for Non Linear Filter in Image Applications" on 29 July 2022. 2. Received research Excellence awards for the contribution of Hearing aid based publications by Institution of Scholars, Bangalore in 2019.
Courses Handled at Under Graduate / Post Graduate Level.	SS, DSP, MPMC, Neural Networks and Fuzzy Logic, ADSD, Testing for VLSI.

No. of Papers Published		
	National Journals – 03	International Journals – 60
	National Conference – 13	International Conference –42

Projects Carried out	1. "Conceptualizing, Design, Development, Testing and Tracking of 2U Nanosatellite in Association with ISRO from 2009 to 2016, Role of the Project: Project Lead. 2. " Wearable Smart Handbag for women Safety" sanctioned under Hackathon 2.0 of MSME in the year 2022 for 10.72 L. Role in the Project :Mentor
Patents	1. An Indian Patent filed titled " Automated Electrically operated Kalpa viriksha Water Extraction Machine" with Application No. 201841005126 in Indian Patent Office Chennai. 2. An Indian Patent filed titled " Palm Fruit cutting machine Machine"

	with Application No. 201841005134 in Indian Patent Office Chennai. 3. An Indian Patent titled " Gaali Palaka " was published with Application No. 202241046608 in Indian Patent Office Chennai.
Technology Transfer	--
Invited Speaker	1.A Delivered a Talk on "Innovation in Engineering for social life" for UG students at Sree Soudambika Engineering college, Arupukottai, Tamilnadu on 27 December 2018. 2. Delivered a UGC-CPE funded Seminar on title "Data Analytics in IOT", at Vellalar college for women, erode, Tamilnadu on 22 February 2019. 3. Presented Online National webinar on "An IOT based Implication of Data communication in Nano Satellite Design-A Birds Eye View" held on 15.5.2020 organized by RMD Engineering College. 4. Presented Two day Online National webinar on "IOT in Human Life" held on 29, 30 June 2020 organized by Panimalar Institute of Technology. 5. Presented online NATIONAL WEBINAR on "IOT-WHAT A COMMONER NEEDS OUT OF IT ? " held on 1st June 2020 organized by Jeppiaar Engineering college. 6. Presented Key note lecture on "Internet of things" in International conference ICCORSE 2020 organized by SRM Easwari Engineering College held on 30 and 31 July 2020. 7. Presented a Webinar on "Automated Algorithms for Detection of Arrhythmias", Organized by department of Wearable and Nano Sensors, Institute of BME, SIMATS school of Engineering, SIMATS on 9/9/2022. 8. Presented a topic on "Antennas for Nano Satellites" in workshop on "Wireless Communication and Signal Processing" Organized by Department of ECE, VJIT and Engineering Staff College of India (ESCI) on 10 November 2022. 9. Presented the journey of CANSAT at 5th Lamakaan Annual Radio Convention held on 10 December 2022 in association with Lamakaan Amateur Radio club and MJCET, Hyderabad.
No. of Books/Chapter Published with details	1. C Bhuvaneswari, K Vasanth, SM Shyni, S Saravanan, "Smart Solar Energy Based Irrigation System with GSM", International Conference on Intelligent Information Technologies, pp 75-85, Springer, Singapore, 2018. (Scopus/ Web of science indexed). 2. Wagh K.P., Vasanth K. (2019) Electroencephalograph (EEG) Based Emotion Recognition System: A Review, "Innovations in Electronics and Communication Engineering", Lecture Notes in Networks and Systems, vol 33, pp 37-59, Springer, Singapore, 2018. (Web of science indexed). 3. Shyni S.M., Vasanth K., Bhuvaneswari C, "A Virtual Instrumentation-Based Data Acquisition System for Vibration Monitoring and Analysis", Innovations in Electronics and Communication Engineering, Lecture Notes in Networks and Systems, vol 33, pp 159-165, Springer, Singapore, 2018. (Web of science indexed). 4. Bhavani, R., Vasanth, K, "Detection of Brain Tumor in MRI Image Using SVM Classifier", Lecture Notes in Networks and Systems, vol 107, pp 559-569, 2020 5. Vadivel, M., Sivakumar, V.G., Vasanth, K., Ganesan, P., Thulasiprasad, S, "Performance Investigation of Brain Tumor Segmentation by Hybrid Algorithms", Lecture Notes in Networks and Systems, vol 107, pp 459-466, 2020 6. Ravi, C.N., Vasanth, K., Harikrishnan, R., Lakshmi, D., Madhusudhana Rao, G., "Solving Combined Economic and Emission Dispatch Problem Using Hybrid RGA-DE Algorithm", Advances in Intelligent Systems and Computing, pp 769-778. 7. P Ganesan, BS Sathish, K Vasanth, M Vadivel, VG Sivakumar, "Color Image Quality Assessment Based on Full Reference and Blind Image Quality Measures", Innovations in Electronics and Communication Engineering, 449-457, 2020. 8. K. Vasanth, C. N. Ravi, S. Nagaraj, M. Vadivel, K. Gopi, S. Pradeep Kumar Reddy, Thulasi Prasad, "A Decision Based Asymmetrically Trimmed Modified Geometric Mean Algorithm for the Removal of High Density Salt and Pepper Noise in Images and Videos", Smart Computing Techniques and Applications pp 147-154, 2021 9. DVN Kameswari , M Divya , Vasanth K , S.Pradeep Kumar Reddy , and S.Nagaraj, "Content based Non Linear Filter for the Removal of Impulsively Modeled artifacts from Images and Videos", Lecture Notes in Electrical Engineering, pp 63-74, 2022

10. J Sridevi, Ch. Raghava Prasad, Vasanth K, "Impact of Distance Measure on Kriging Distance interpolation on Natural Images Corrupted by Dropout Noise", Lecture Notes in Electrical Engineering, pp 439-450,2022

11. Authored a Book titled " Digital filters to remove impulsive artifacts in images & videos", LAP Lambert Academic Publishing, Latvia, ISBN:978-613-9-92696-1

FDPs Attended:

1. Participated in NAAC Sponsored Two Day National Seminar on Quality Improvement in Technical Education through Outcome based Education on 14-15 December 2018.

2. Participated in two day National Level Workshop on "Quality Enhancement Measures in Higher, Technical, Professional and Management Educational Institutions with special focus on NIRF INDIA Rankings at Jawaharlal Nehru Technological University, Hyderabad on 18 & 19 October 2019.

3. Participated in UGC Sponsored Webinar on "Academic Research Integrity in context of NEP 2020", "NEP 2020Implementation Plan: Equity and Inclusion"", "NEP 2020 Implementation Plan: Multiple Entry and Exit System", "Outcome Based Education and Academic Bank of Credits" during June and July 2022.

4. Participated in FDP organized by E&ICT Academy, NIT Warangal and Rajalakshmi Institute of Technology on " Recent Trends in Antenna Engineering and Applications" Sponsored by MEITY during 13 to 23 February 2023

Nptel Certifications : 03 (1 Gold and 1 Elite)
Online Courses completed : 09 (Coursera)

Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops. Other Trainings (**Attended and/or Organized**).

Details of Journal Publications/ Conferences
Years (s): 2018-2023

Bhavani R, **Vasanth .K**,"Brain Image Fusion based tumour detection using gray level Co-occurrence matrix Tamura feature extraction with back propagation network classification", Mathematical Biosciences and Engineering, Vol.20,no.5,pp.8727 - 8744,2023

Kalyani Wagh, **Vasanth.K**, "Performance evaluation of multi-channel electroencephalogram signal (EEG) based time frequency analysis for human emotion recognition, Biomedical signal processing and control, Vol no 78, 103966, Sept 2022, (SCIE, SCOPUS Publications)

Rani, R.Jhansi and **Vasanth, K**. 'An Effective Latent Fingerprint Enhancement and Recognition System Using Dictionary Learning and LCPnet Mechanisms'. Journal of Intelligent and fuzzy Systems, IOS press, Vol no 43,Issue no 5,pp 6093-6108, Jan 2022(SCIE, SCOPUS Publications)

Elanangai, V. and **Vasanth, K**. 'An Automated Steel Plates Fault Diagnosis System Using Adaptive Faster Region Convolutional Neural Network', Journal of Intelligent and fuzzy Systems, IOS press, Vol no 43, no 6, pp 7067-7079, Nov 2022(SCIE, SCOPUS Publications)

K.Vasanth, "A Decision Based Neighbourhood Referred Asymmetrically Trimmed Modified Trimean for the Removal of High Density Salt and Pepper Noise in Images and Videos", Wireless Personal Communications, Vol no 120, PP 2585–2609, 2021. (Scopus , SCIE Publications)

K Vasanth, R Varatharajan, "An adaptive content based closer proximity pixel replacement algorithm for high density salt and pepper noise removal in images", Journal of Ambient Intelligence and Humanized Computing, pp 1-15, https://doi.org/10.1007/s12652-020-02376-2. (Scopus and SCIE Publications)

MS Christo, **K Vasanth**, R Varatharajan , "A decision based asymmetrically trimmed modified winsorized median filter for the removal of salt and pepper noise in images and videos", Multimedia Tools and Applications, Vol 79, no 1, pp 415-432. (Scopus and SCIE Publications)

K.Vasanth, R.Sravanthi, "Real Time Monitoring of Environmental Parameters using IoT", Wireless Personal Communication, Vol No 12,pages785–808 (2020) (Scopus and SCIE Publications)

Vasanth K, Varatharajan R, "A decision based unsymmetrical trimmed modified Winsorized variants for the removal of high density salt and pepper noise in images and videos", Computer Communications, Vol 154, pp 433-441, 2021. (Scopus and SCIE Publications)

Vasanth K, Sindhu.E, Varatharajan, "VLSI architecture for Vasanth sorting to denoise image with minimum comparators", Microprocessors and Microsystems, VOl 71, pp 1-10,2019, (Scopus and SCIE Publications)

K Vasanth, M Macharla, R Varatharajan, "A Self Assistive Device for Deaf & Blind People Using IOT", Journal of Medical Systems (Springer), https://doi.org/ 10.1007/ s10916-019-1201-0, (Scopus and SCIE Publications)

R Varatharajan, **K Vasanth**, "A Tri- State Filter for the Removal of Salt and Pepper Noise in Mammogram Images", Journal of Medical Systems (Springer), vol 43, issue 2, pp 1-10, 2019. (Scopus and SCIE Publications)

Vasanth K, K.Kumar, G.Nagarajan, C.N.Ravi, S.D.Sundersingh Jebaseelan, Godwin Emmanual "Decision Based Detail Preserving Algorithm for the Removal of Equal and Unequal Probability Salt and Pepper Noise in Images and Videos", International Arab journal of information Technology, Volume 15, No. 5, September 2018, (Scopus and SCIE Publications)

Celin.S, **K.Vasanth**, "ECG Signal Classification Using Various Machine Learning Techniques", Journal of Medical Systems (Springer), vol 42, issue 241, pp , 2018 https://doi.org/10.1007/s10916-018-1083-6 (Scopus and SCIE Publications)

Vasanth K, Ganesan Packyanathan, Harikrishna Kamatham and Vishnu Shankar, "An adaptive decision based

interpolation scheme for the removal of high density salt and pepper noise in images, Eurasip Journal of Image Video Processing (Springer). Vol 67 , 2017, https://doi.org/10.1186/s13640-017-0215-0(Scopus and SCIE Publications)

Vasanth K, Varatharajan, Gunasekaran Manogaran, Priyan, Xio-Zhi,Gao, "An Adaptive Decision based Kriging Interpolation Algorithm for the Removal of High Density Salt and Pepper Noise in Images", Computer and Electrical Engineering (Elsevier), vol 70, pp 447-461,2017, DOI: 10.1016/ j.compeleceng .2017.05.035 (Scopus and SCIE Publications)

Vasanth.K, Varatharajan. R, "An Adaptive Non Linear filter based on Median of Minimum Distance for Salt and Pepper noise Removal in Mammogram Images", Current Signal and Transduction Therapy, volume 12, issue no 2, pp 124-131, 2017. DOI : 10.2174/1574362412666161118113551 (Scopus and SCIE Publications)

K.Vasanth, V.Jawahar Senthil Kumar, "A Decision Based Neighborhood referred unsymmetrical trimmed variants filter for the removal of salt and pepper noise in   images and videos", International Journal of Signal, vision and video processing, Springer, August 2014,vol 9,issue 8, pages 1833-1841. (Scopus and SCIE Publications)

International Conference Publications (2023- 2021)

V. Elanangai and **K. Vasanth**, "Defect detection and recognition of SS plate using deep autoencoder neural network," 2023 International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF), Chennai, India, 2023, pp. 1-8, 2023.(Indexed in IEEE Digital Xplore)

V. Elanangai; **K. Vasanth**, "An Efficient Technique for Identifying Defects in Stainless Steel (SS) Plate using Image Processing", International Conference on   Advanced Computing and Communication Systems (ICACCS), pp 1-5, 2022. .(Indexed in IEEE Digital Xplore)

K. Vasanth; P V Sai Krithik; M T Adarsh Raghavan; Sai Pratyusha K, "Weighted Hybrid Machine Learning Algorithm to predict Rainfall for Hyderabad Region",   International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI), pp 1-7, 2022. .(Indexed in IEEE Digital Xplore)

Navya, Sridevi, **K.Vasanth**, "Modified Geometric Mean as an Estimator of Outlier based Artifacts in Natural Images", International Conference on Smart Electronics and Communication, ICOSEC, pp 1095-1102, 2022.

Mounika, G., **Vasanth, K**, "45nm Technology based 8-Bit Data Comparator Architecture for Rank ordering Image Applications", International conference on Edge computing and Applications, ICECAA-2022, pp 786-791. .(Indexed in IEEE Digital Xplore)

Krithik, Raghavan, Pratyusha and **Vasanth. K.**, "Feature Identification based Automatic Sign and Photo Detection in a Document," 2022 4th International Conference on Inventive Research in Computing Applications (ICIRCA), pp. 1727-1733, 2022. .(Indexed in IEEE Digital Xplore)

Vasanth K, " Decoder based VLSI Architectures for Non Linear Filter in Image Applications", International Conference on Advances in signal processing, VLSI, Communications and Embedded Systems (ICSVCE- 2022), AIP Publishing, In Press (Scopus and WoS Publication)

K Vasanth; K Saichaitanya; M Neeraja; R Soumya, "Impact of Distance Measures in Shepards Interpolation Algorithm on Natural Images Corrupted by Outliers", Third International Conference on Intelligent Communication Technologies and Virtual Mobile Networks (ICICV), pp 1-5, 2021. .(Indexed in IEEE Digital Xplore)

Sindu Divakaran; **K. Vasanth**; Suja D; Swedha V, "Classification of Digital Dental X-ray Images Using Machine Learning", Seventh International conference on Bio Signals, Images, and Instrumentation (ICBSII),pp 1-5 , 2021. .(Indexed in IEEE Digital Xplore)

K Vasanth; Divya. M; Kameswari D.V. N; Celin S, "Effect of curve fitting in an automated cardiac arrhythmia detection system", 2021 6th International Conference on Communication and Electronics Systems (ICCES) , pp 1-7, 2021. .(Indexed in IEEE Digital Xplore)

Sowmya Kayala, **K Vasanth**, "Pipelined Shapiro Sorting for Image Applications", AIP Conference Proceedings 2407, 020001, pp 1-7, 2021. .(Indexed in IEEE Digital Xplore)

Elanangai V, **Vasanth K**, "Performance Evaluation of Stainless Steel Plate Defects Using Deep Learning Approach" , 2021 IEEE International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES), pp 1-5, 2021. (Indexed in IEEE Digital Xplore)

Madhuri Ninganolla, **K. Vasanth**, "Monitoring of Food grains on a Smart Container using Internet of Things", 2021 IEEE International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES), pp 1-5, 2021. (Indexed in IEEE Digital Xplore)

Soumya Kayala, **K. Vasanth**, "Low Power VLSI Architecture for Data Comparators for Non-Linear Imaging Applications", 2021 IEEE International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES), pp 1-5, 2021. .(Indexed in IEEE Digital Xplore)

K. Vasanth, G Poralla Pradhyumna, Shivani Peram, Pradeep Kumar Reddy, Tarun Dandetikar, C N Ravi, "Wearable Device for Commuting Ladies Using IoT", 2021 IEEE International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES), pp 1-5, 2021. .(Indexed in IEEE Digital Xplore)

P.V. Sai Krithik, M.T. Adarsh Raghavan, K. Sai Pratyusha, **K. Vasanth**, R. Mahesh, M. Anand Pandarinath, "Use of Deep Learning in Transport Services for Maintaining Safety and Regulating Unauthorized Drivers", Applications of Machine Learning 2021, Proc. of SPIE Vol. 11843, 1184310, pp-1-10, 2021. (Indexed in Scopus)

P V Sai Krithick, M T Adarsh Raghavan, Sai Pratyusha K, **K Vasanth**," Real Time Rainfall Prediction for Hyderabad Region using Machine Learning Approach", Innovations in Power and Advanced Computing Technologies, pp 1 – 6,2021 .(Indexed in IEEE Digital Xplore)

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