Dr P Karthikeyan MTech.,Ph.D
Associate Professor/ECE
Velammal College of Engineering and Technology, Madurai
e-Mail Id:pkn@vcet.ac.in

Educational Qualification:

- Ph.D Information and Communication Engineering degree from Anna University Chennai during 2011-2018.
  Title of Ph.D. Thesis :Development of Multiresolution Joint Bilateral and Decision Based filtering algorithms for Image Denoising and Implementation in FPGA
- M.Tech Electronics Design and Technology degree from NIT Calicut,during 2004 - 2006 with an aggregate of 7.14 CGPA in 10 scale point (First Class).
- B.E. Electronics and Communication ENGG degree from Arulmigu Kalasalingam College of ENGG, Affiliated To M.K University, Madurai during 1997-2001 with an aggregate of 68.74% (First Class).

Experience in Years: 18 Years 6 Months

Employment History:

TEACHING EXPERIENCE
- Working as a Associate Professor in Velammal College of Engineering and Technology, Madurai from May 2020 to till date.
- Worked as a Assistant Professor in Velammal College of Engineering and Technology, Madurai from June 2010 to March 2020.
- Worked as a Lecturer in SACS MAVMM ENGG COLLEGE, Madurai from Jan'2002 to July'2004.

INDUSTRIAL EXPERIENCE
- Worked as a Sr Systems Engineer in SPA Computers (P) LTD, Bangalore from April'08 to Oct'09.
- Worked as a Sr Engineer Projects in MEL Systems and Service Ltd, Chennai from July'06 to April'08.

Interested Research Areas:

Embedded Reconfigurable Systems,IoT,AI and Data Science

Scholarships and Awards received:

- Outstanding Superviosr Award recived from Innovate FPGA Design Contest -2022

Title of the Project	Organizing Agency/Institute	Year of Competition	Project and Price Status	Amount
Neonate Monitoring POD and Batch unit	Hacakthon-2019 MHRD India	Auguest 2022	Ongoing	2500INR
Soil and Plant health monitoring through Smart Sensing and Monitoring System	Innovate FPFA Design Contest-2021 TerasicInc Taiwan	June 2022	Completed/Semi Finalist	300USD
Soil Mapping and Sensing	Innovate FPFA Design Contest-2018 TerasicInc Taiwan	November 2019	Completed/Semi Finalist	300USD
Autonomous	Smart India	July 2019	Completed/	25000INR

Guidance System for Paddy Cultivation	Hacakthon-2019 MHRD India		Finalist	
Automatic Quality Detection of Jasmine Flower using Tensor Flow	Innovate FPFA Design Contest-2018 TerasicInc Taiwan	June 2018	Completed/Semifinalist	300USD
Smart Fencing System	India Innovation Design Contest 2016,DST and Texas Instruments	June 2016	Completed/Semifinalist	300USD

Funded Research Projects:

Title of the Project	Funding Agency / Institute	Period	Role/Status	Amount
MODROBS for Image Processing Lab to add remote sensing data analysis facility	AICTE AQIS-MODROBS	July 2020-July 2022	Co-Principal Investigator/ On-Going	16.5 Laksin Indian Rupees
Machine Learning Applications to IoT	AICTE AQIS-STTP	Dec 2019-March 2021	Joint coordinator / On-going	3 Laks in Indian Rupees
Design and Development of smart health monitoring unit for kindergarten children and old age people	DST-IDP,New Delhi	March 2013-June 2016	Co-Principal Investigator/ Completed	38.16 Laks in Indian rupees
Design and Development of automated object detection and classification algorithm in hyperspectral images for battlefield surveillance system	DRDO New Delhi	January 2014-January 2016	Co-Principal Investigator/ Completed	18.84 Laks in Indian Rupees

Patent rights received:

S.No	Application Number	Patent Title	Publication Date
1.	202241029353	IoT Based Smart watch Drone Healthcare system for Heart Risk Prediction	03-06-2022
2	02141035506 A	A Method for Detecting Breast Cancer using BAT Optimized HCGLCM	13-08-2021

Publications Details:

1. Book/Book Chapter Publication Details:

Sl. No.	Title of the Book	Title of the Book Chapter	Name of the Publisher	Publication details
1	Medical Image Processing for improved clinical diagnosis	Non-Subsampled Contourlet Transform-BasedEffective Denoising of Medical Images: Denoisingof Medical Images Using Contourlet	IGI Global publicatio ns USA	ISBN NO:9781522 558767 2018
2	Soft Computing systems	Design and Development of Laplacian Pyramid Combined with Bilateral Filtering Based Image Denoising	Springer Singapore	https://doi.or g/10.1007/97 8-981-13-1936-5_24 2018
3	Object Dectection with Deep Learning Models	Deep Learning based vehicle number plate detection and recognition (Scopus Indexed)	CRC PRESS Taylor and Francis Group	DOI: 10.1201/9781 003206736
4	Object Dectection with Deep Learning Models	Healthcare Data Analytics in Internet of Healthcare Things (Scopus Indexed)	CRC PRESS Taylor and Francis Group	DOI: 10.1201/9781 003206736

2. International Journal Publication Details:

Sl. No.	List of Authors	Title of the Paper	Name of the Journal	Publication details (Vol., Year, pp.)
1	P Karthikeyan M Sakthivel K Karthik	An Intelligent Algorithm for Information Extraction from Images of Different Illumination	Journal of Xidian University	vol. 15,no.03 March 2021
2	P Karthikeyan S Vasuki	Multiresolution joint bilateral filtering with modified adaptive shrinkage for image denoising	Multimedia Tools and Applications	vol. 75,no.23 December 2016

3	P Karthikeyan S Vasuki	Hybrid approach of efficient decision based algorithm and fuzzy logic for the removal of high density salt and pepper noise in images	Journal of Circuits, Systems and Computers	vol.5,no.10,October 2016
4	P KarthikeyanS Vasuki	Efficient decision based algorithm for the removal of high density salt and pepper noise in images	Journal of Communications Technology and Electronics	vol. 61, no. 8, pp.963-970,August 2016.
5	P KarthikeyanS Vasuki	Reconfigurable Architecture of 2D-Adaptive Median Filter Based Image Denoising	Internal Journal of Applied Engineering Research	ISSN 0973-4562 Vol. 9 No. 20, 2014
6	P KarthikeyanS Vasuki	Effective Noise Removal in Graylevel Image Using Joint Bilateral Filter	Internal Journal of Applied Engineering Research	ISSN 0973-4562 Vol. 9 No. 20, 2014

3. International Conference Presentation Details:

Sl.No.	International Conference	Title	Volume & Page no.	Year of Publication
1	International Conference In Magna On Emerging Engineering Trends(ICMEET-2012) organized by Magna College Of Engineering Chennai	Effective removal of mixture Noise in color images using hybrid Shrinkage techniques	ICEC19 PP:317-321	April 2012
2	International Conference on Advanced Computing Technology (ICACT-2012) organized by JKKN College of Engg. And Tech., Namakkal	Image Denoising by Curvelet Transform using Different Wavelets in Medical applications	Vol 4, ICACT0124 PP:109-116	March 2012
3	International Conference on Science, Engineering and Technology (SET-2012) organized by Vellore Institute of Technology., Vellore.	Possion Noise removal in MRI Images using PURE-LET Approach	PP:21-30 SET-2012 Conference Proceedings	December 2012 (Dr.S.Vasuki)
4	International Conference on Designs and Applications of Structures, Drives, Communicational and Computing Systems (ICDASDC-2012) organized by	A Hybrid Technique for Impulse noise Reduction	PP:42-50 ICDASDC-2012 Conference Proceedings	November 2012 (Dr.S.Vasuki)

	KLN college of Information Technology, Pottapalyam, Sivagangai DT.			
5	International Conference on SMART Technologies (ICST-2013) organized by VEL TECH TECHNICAL UNIVERSITY., Avadi, Chennai.	The Performance Analysis of Purelet Approach with The Hybrid Method Purelet and ICA Based Poisson Noise Reduction in MRI Data Sets	PP:154-161 ICST-2013 Conference Proceedings	January 2013 (Dr.S.Vasuki)
6	International Conference on SMART Technologies (ICST-2013) organized by VEL TECH TECHNICAL UNIVERSITY., Avadi,Chennai.	Directional Feature Preservation in Medical Images Using Contourlet Transform	PP:168-173 ICST-2013 Conference Proceedings	January 2013 (Dr.S.Vasuki)

4. National Conference Presentation Details:

Sl.No.	National Conference	Title	Page no.	Year of Publication
1	National Conference on Signal Processing and Communication Technologies(CSPCT-2011) organized by Kamaraj College of Engineering & Technology Virudhunagar	Estimation of Noise Reduction in color Image Enhancement by Wavelet based Frequency Adaptive Shrinkage method	PP:32-39 CSPCT-2011 Conference Proceedings	March 2011
2	National Conference on Signal Processing and Communication Technologies(CSPCT-2011) organized by Kamaraj College of Engineering & Technology Virudhunagar	Improved Multi-resolution Bilateral Filter	PP :80-84 CSPCT-2011 Conference Proceedings	March 2011

5. Details of Ph.D Supervisor,:

Name of the University as a Recognized Supervisor   :Anna University Chennai- Reg No:3340058

No. of Research Scholars Registered   :   1   -

No. of Research Scholars Completed   :   2 (Research Coordinator)-

Significant Outcomes if any   :   2 Patent Publications

6. Online Courses like COURSERA, MOOC, NPTEL, etc., qualified and Details:

- ✓ 12 Weeks NPTEL Course – Microprocessors and Interfacing -81% Elite Plus Silver
- ✓ 8 Weeks NPTEL Course – Accreditation Process for Under Graduate Engineering Programmes.-82%
- ✓ 8 Weeks NPTEL Course -Microprocessors and Microcontrollers-65% Elite Grade
- ✓ 4 Weeks NPTEL Course-Aircraft Maintenance Engineering -66% Elite Grade
- ✓ 4 Weeks NPTEL Course - Regulatory requirements for medical devices and IVDs in India-58%
- ✓ 4 Weeks NPTEL Course-Basics of SDRs and practical applications-63% Elite Grade
- ✓ One Month online MOOC Course-FDP101x -Foundation Programme in ICT for education-IITB
- ✓ 12 Weeks NPTEL Course- Introduction to Embedded System Design -57%

7. Google Scholar report:

Cited by

	All	Since 2017
Citations	26	23
h-index	3	3
i10-index	0	0

8. Membership of Professional Bodies:

Professional Body	Type of Membership	Position Held
International Association of Engineers	Permanent Member Member No:291401	Member in the Association

Place :Madurai

Date : 23-08-2022

Signature of the Staff Member