

DR K V SURESH

Affiliation (Professor and Head, Dept of Electronics and Communication Engg., SIT)

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Education

	Degree	Year	Institute	Specialization
1	BE	1990	MCE Hassan	Electronics & Communication
2	M Tech	1993	SJCE, Mysore	Industrial Electronics
3	PhD	2008	IIT Madras	Image Processing

Professional Experience

	Date (from-to)	Designation	Organization
1	2008-till date	Professor	SIT, Tumkur
2	2004-2008	Assistant Professor	SIT, Tumkur
3	1993-2004	Lecturer	SIT, Tumkur
4	1990-1993	Lecturer	KIT Tiptur

(Please fill in reverse order. Current designation should be at the top)

Positions held

(Please give details of any administrative posts, co Ordinator roles/ responsibilities held)

- Head of the Department: 2010-2013, 2016-2019, 2022-till date
- SIT IEEE student branch counselor: 2002-2020
- SIT IEEE student branch mentor : 2020 till date
- Chairman, Institute ranking improvement committee: 2021 to till date

Affiliations of Professional organizations

- Life member, ISTE
- Fellow, IE

- Senior member, IEEE

Awards and Honors

- BEST THESIS AWARD, Board for IT Education Standards (BITES), Bangalore
- SPECIAL MENTION OF THE JURY, PHD SUPERVISOR AWARD, Board for IT Education Standards (BITES), Bangalore

Courses Taught

Undergraduate Courses

- Basic Electronics
- Analog Electronic circuits
- Electronic circuits-I
- Electronic circuits-II
- Probability, Information and coding theory
- Analog Communication
- Cryptography
- Image Processing
- Foundations of Electronics Engg.
- Applied Electronics & Microprocessors
- Error control coding
- Random Processes
- Linear Integrated Circuits
- Statistical Signal Processing
- Signals and Systems
- Fundamentals of DIP

Postgraduate Courses

- Error control coding
- Statistical Signal Processing
- Digital Image Processing

Research Guidance

Sl. no	Name of the Scholar	Title	Year of completion
1	Aravind B N	Adaptive Image Denoising using spatial and transform domain	2018

2	Sheela S J	Analysis of Chaotic System and methods for security enhancements	2019
3	Renukalatha S	Modelling and Analysis of Bio-Medical Images using Statistical Methods	2020
4	Shashikiran S	Investigation of Methods for Image Reconstruction using sparsity	2023
5	Shilpashree P S	Analysis of corneal Images using machine learning Techniques	2024
6	Dayananda Kumar N C	Development of algorithms for 3D hand gesture recognition using depth map	2024

Research Areas

- Image Processing
- Computer vision

Sponsored Projects

Completed Projects:

1. Title: Image Processing and computer vision lab
Funding Agency: AICTE (MODROBS)
Amount:12 Lakhs
Duration:2021-23
Role: Principal Investigator
2. Title: High-resolution image generation from sub-pixel shifted low-resolution images under inaccurate motion estimation
Funding Agency: AICTE (RPS)
Amount:2.7 Lakhs
Duration: 2010-2012
Role: Principal Investigator

Publications

Journals

- S.J.Sheela, K.V.Suresh “Real time region of interest based chaotic image cryptosystem for IoT applications” Multimedia Tools Applications Vol 83, pp. 16161–16177 Feb. 2024.
- Shashi Kiran, Suresh Kaggere Veerannna, “Image reconstruction through compressive sampling matching pursuit and curvelet transform” International

Journal of Electrical and Computer Engineering (IJECE). Vol.13, No.6, pp 6277-6284. Dec. 2023.

- Dayananda Kumar, K.V.Suresh, Chandrashekar V, Dinesh R “ SSEC :Semantic Segmentation and Ensemble Classification Framework for Static Hand Gesture Recognition using RGB-D data”, International Journal of Advanced Computer Science and Applications (IJACSA), Vol.14, No.3, pp. 915-923, Jan 2023.
- Palanahalli S Shilpashree , Tapanmitra Ravi M Y, Thanuja Chalimeswamy Anupama, Sudhir H Ranganath, Kaggere V Suresh and Sangly P Srinivas “Grading the severity of Damage to the Perijunctional Actomyosin Ring and Zoula Occuludens -1 of the Corneal Endothelium by Ensemble Learning Methods”. Journal of Ocular Phamacology and therapeutics, Volume 39, number 4 , pp. 252-274, Mar 2023.
- Shashi Kiran Seetharamaswamy, Suresh Kaggere Veeranna, “Super resolution image reconstruction via dual dictionary learning in sparse environment” International Journal of electrical and Computer Engineering Vol.12, No.5, Oct. 2022.
- Sheela, S.J., Suresh, K.V., Tandur, D., Sanjay, A., Embar, S. and Rajani, T.S., 2022. “Image cryptosystem based on modified Henon chaotic map and dynamic encoding mechanism.” Multimedia tools and Applications, Volume 81(28):1-16, pp. 40253-40268, May 2022.
- Sheela, S.J., Sanjay, A., Suresh, K.V. et al. “Image encryption based on 5D hyper chaotic system using hybrid random matrix transform”. Multidimensional System & Signal Processing, Volume 33, pp. 579-595, Jan. 2022,
- Dayananda Kumar N.C, Suresh K.V.;Dinesh R, “Ensemble Learning for Static Hand Gesture Recognition using HOG and LBP Features on RGB-D Data”, International Journal of Computer Information Systems and Industrial Management Applications, Volume 15, pp. 341-350, 2023,
- P S Shilpashree, K V Suresh, R R Sudhir & S P Srinivas, “Automated Image Segmentation of the Corneal Endothelium in Patients with Fuchs Dystrophy” in Translational Vision Science & Technology. Vol.10, Issue.13, Nov-2021,
- S.J.Sheela, K.V.Suresh, Deepak Tandur, A.Sanjay, “Cellular Neural Network-Based Medical Image Encryption”, Springer Nature Computer Science, Issu-6,volume-1, pp-1-11, Oct. 2020.

Conferences

- K. V. Suresh and Dayananda Kumar. N C, "Autonomous Campus Courier System," 3rd International Conference on Smart Systems for applications in Electrical Sciences (ICSSSES), Tumakuru, India, March 2025, pp. 1-6, DOI: 10.1109/ICSSSES64899.2025.11009309.

- Aravind V A, Nikhil K G, Harsha S N, Vinay J, Suresh KV, Shilpashree PS, Kumar ND. "Alzheimer's Disease Detection from MRI Images using Histogram of Oriented Gradients and Support Vector Machine." International Conference on Smart Systems for applications in Electrical Sciences (ICSSES) May 2024 (pp. 1-6). IEEE DOI: 10.1109/ICSSES62373.2024.10561304
- Dayananda Kumar N C , K.V.Suresh, Sheela S J, Dinesh.R, "SIT-HANDS:A Novel RGB-D Dataset for Static Hand Gesture Recognition using Kinect Sensor ", International Conference on Smart systems for Applications in Electrical Sciences organized by Association of Electrical Sciences, SIT, Tumkur, July 2023, DOI: 10.1109/ICSSES58299.2023.10200734
- Dayananda Kumar N.C.; Suresh K.V.;Dinesh R, " Depth Based Static Hand Gesture Segmentation and Recognition", Communications in Computer and Information Science, Volume 1697 CCIS, 2022, Pages 125-138 DOI:10.1007/978-3-031-22405-8_11
- Aithal C.N.;Ishwarya P.;Sneha S.;Yashvardhan C.N.;Kumar D.;Suresh K.V, " Hand Gesture Recognition in Complex Background", Communications in Computer and Information Science, Volume 1697, CCIS, 2022, Pages 243-257
- Aithal C.N.;Ishwarya P.;Sneha S.;Yashvardhan N.;Kumar D.;Suresh K.V," Dynamic Hand Segmentation" 2021 IEEE 8th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering, 2021 DOI:10.1109/UPCON52273.2021.9667634
- Darshan R S, Pavan H, Mohith S Raj, Pratheesh R, Dr. K V Suresh, Prathap C, "An IoT enabled water management system with water usage prediction using ANN" 2nd Global conference for advancement in technology (GCAT), Bangalore,October 2021.
- Aithal C.N., Ishwarya P., Sneha S., Yashvardhan C.N., Suresh K.V. "Design of a Bipedal Robot". In: Kalya S., Kulkarni M., Shivaprakasha K.S. (eds) Advances in VLSI, Signal Processing, Power Electronics, IoT, Communication and Embedded Systems. Lecture Notes in Electrical Engineering, vol 752. pp. 55-67, April 2021, https://doi.org/10.1007/978-981-16-0443-0_5
- Sharath D.M, S Arunkumar,Rohan M G, Akhilesh, K.V.Suresh and Prathap C, "Disease Detection in Plants using Convolutional Neural Network", International Conference on Inventive Research in Computing Applications (ICIRCS 2020), Coimbatore, July 2020

Editor/ Reviewer of Journal

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Patents

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Invited Lectures, talks and workshops

- Topic : Computer vision & Machine learning using Python
Place : SSIT, Tumkur
Date : 26.9.2024
- Topic : Machine learning applications on Image Processing
Place : NCET, Bangalore
Date : 17.1.2022
- Topic : NIRF Calculations
Place : MCE, Hassan
Date : 15.12.2021
- Topic : Image Processing using python
Place : SSIT, Tumkur
Date : 25.9.2021
- Topic : Improving Teaching - learning process,
(Few case studies @ ECE Dept., SIT)
Place : JSSATE, Bangalore
Date : 24.9.2021
- Topic : Super-resolution in Image Processing
Place : Dr. AIT, Bangalore
Date : 24.3.2021
- Topic : Real time applications in Image Processing
Place : RV College of Engg., Bangalore
Date : 5.2.2021
- Topics : Fundamentals of Image Processing
Recent Trends in Image Processing
Place : Rajeev Institute of Technology, Hassan
Date : 25.8.2020