

**Name** : Dr. K.Geethalakshmi  
**Designation** : Assistant Professor & Head  
**Department** : BCA  
**Qualification** : M.C.A., M.Phil., B.Ed., NET, Ph.D.  
**Experience** : Teaching -19 Years  
**Research** : 9 yrs  
**Area of Specialization(s)** : Image Processing & Deep Learning  
**Email(Official ID)** : geethalakshmi@psgrkcw.ac.in



### Academic Qualifications

Degree	Branch	Institution/UniversityName	Year of Graduation
Ph.D.	Computer Science	Bharathiar University	April - 2025
NET	Computer Science	UGC - NET	December - 2024
M.Phil.	Computer Science	Annamalai University	September - 2008
B.Ed	Mathematics	Tamilnadu Teachers Education University	May - 2010
M.C.A	Computer Applications	Bharathiar University	May - 2004
B.Sc.	Mathematics	Avinashilingam Institute for Home Science and Higher Education for Women- Deemed University	May - 2000

### Additional Qualifications

Diploma/ Vocational/ Certification	Area of Specialization	Institution/University/AgencyName	Year
Diploma	HDSE - Higher Diploma in Software Engineering	Aptech Computer Education	1998 - 2000
Certification	Red hat Essentials	Coursera	2023
Certification	Python Programming	Coursera	2023
Certification	KOTLIN	Coursera	2024

<b>Certification</b>	Software Product Management	Coursera	2024
<b>Certification</b>	Java Programming	Swayam NPTEL	April 2019
<b>Certification</b>	Software Project Management	Swayam NPTEL	October 2019

### Research Guidance

Programme	No.ofScholars	
	Completed	Pursuing
M.Phil.	1	-

### Research Publications (Indexed)

#### International

- Diabetic Retinopathy Lesions Identification and Classification using 121- Layers Convolutional Neural Network with Discriminative Features. Geethalakshmi K. Dr. V.S.Meenakshi Indian Journal of Natural Sciences, Volume Vol.14 /Issue 82 / Feb / 2024, Year 2024, Pages 67794-67803. ISSN: 0976 – 0997.
- IN-Depth Evaluation of Retinal Image Classifiers:The Strength and Distinctions pf Neural Network and Deep Learning Approaches Geethalakshmi K, Dr.V.S.Meenakshi African Journal of Biological Sciences, Volume 6, Issue 13, Year 2024, Pages 3767-3780
- Dense Convolution Neural Network for Automated Diabetic Retinopathy Detection Geethalakshmi K, Dr.V.S.Meenakshi Journal of Propulsion Technology, Volume 44, Year 2023, Pages 5175-5186
- A Comparative Study on Diabetic Retinopathy Lesions Detection K.Geethalakshmi, DST - SERB SPONSORED INTERNATIONAL CONFERENCE ON BLOOMING FUZZIFIER LOGIC ( ICBFL - 2023), Volume , Year 2023.
- Molecular Analysis of bacteria isolated from the soil for its Potential Agnostic activity Vinodhini K.;Kavitha S.;Saranya T.;Geethalakshmi K. Research Journal of Pharmacy and Technology, Volume 15, Year 2022, Pages 4135-4138.
- Diabetic Retinopathy Lesions Identification in the Color Fundus Images using Multi-Layer Perceptron Geethalakshmi K.;Meenakshi V.S. Proceedings of the 2022 9th International Conference on Computing for Sustainable Global Development, INDIACom 2022, Volume , Year 2022, Pages 517-523.
- Bacteria,Bioinformatics,Biology,Biotechnology,Broth,Centrifuge,Computer,DNA,Gene,Genome(s),Isolation, Molecule, Nucleotide,Pellet, Phylogentic, Protein, Solution, Sequence, Tools. K.Geethalakshmi, Multi-Disciplinary Application Perspective in IOT, Volume , Year 2020.

- Mathematical Morphology and Optimum Principal Curvature Based Segmentation of Blood Vessels in Human Retinal Fundus Images K. Geethalakshmi, Dr.V.S.Meenakshi International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume 8, Year 2019.
- Molecular Identification of Gram -Ve Pathogen And Sequence Analysis K.Geethalakshmi, 3rd National Conference on Exploring Bionanoscience in Pharma , Agri , Food science and Industrial Microbiology, Volume , Year 2019.
- A Survey on Deep Learning Approaches in Retinal Vessel Segmentation for Disease Identification K.Geethalakshmi IOSR Journal of Engineering (IOSRJEN) , Volume , Year 2018, Pages 47-52 .
- Content Based Image Retrieval System, Information Retrieval K.Geethalakshmi Recent trends in computing technologies, Volume , Year 2018.
- Study on Image Processing and Segmentation Techniques K.Geethalakshmi International Journal of Latest Trends in Engineering & Technology, Volume Special Issue SACAIM 2017, Year 2017, Pages 025-028.
- A Survey on Disease Identification and Blood Vessel Segmentation in Human retinal Images K.Geethalakshmi , Dr.V.S.Meenakshi International Journal of Advanced Research In Science & Engineering, Volume 6, Year 2017, Pages 574-58.
- Image Processing Techniques K.Geethalakshmi Emerging trends in Big Data Technologies and Research Issues(NCEBTR2K17), Volume , Year 2017.
- Image Mining and Technology Capabilities K.Geethalakshmi Innovative Computational Techniques, Volume , Year 2017.
- Hierarchical Routing Protocol in Wireless Sensor Network K.Geethalakshmi Wireless Communication, Volume , Year 2015.
- Privacy risk in recommended system K.Geethalakshmi Cyber Security, Volume , Year 2014.
- Efficient And Secure Concealed Data Aggregation For Multiple Applications (Cdama) In Wireless Sensor Networks K.Geethalakshmi, R.Divya International Journal of Computer Engineering and Applications. , Volume 7, Year 2014, Pages 182-187.
- Trust Computation Model for Secure Data Aggregation (TCMSDA) in Wireless Sensor Networks K.Geethalakshmi, R.Divya International Journal of Computer Science Engineering and Technology( IJCSET), Volume 4, Year 2014, Pages 319-325.

### **Book Published**

- \* Information Security Handbook for PSGRKCW students
- \* Bioperl Programming, Publisher : CIIT Publication
- \* Image Processing using MATLAB for Beginners, Amazon Kindle.

### **Short Term Course**

- \* **Java Programming and Project Development during 2010 -2011 - ICT Academy**
- \* **Short Term Capacity Building Certificate Programme on Academic Leadership 5.0 in Avinashilingam Institute for Home Science and Higher Education for Women**

### Acted as a Resource Person -

- Acted as a Mentor for NAAC criteria under PARAMARSH Scheme.(Texcity College)
- Acted as a Mentor for NAAC criteria under PARAMARSH Scheme.(AVP College)
- Acted as moderator for National Conference on National Conference on Emerging Trends and Opportunities in Augmented, Virtual, and Mixed Reality during February 2025.
- Acted as a moderator for Inter Departmental Competition-BBA(IB/RM) during 2022
- Acted as moderator for Bharathiar piranthanal vizha competition during December 2024.
- Acted as a naduvar for Tamil Pattimandram during Jan 2025

### Paper Presentations in Conference - 15 Presentations in Seminar - 3

### Participation in Workshop -10

### Participation in Faculty Development Programme - 22

### Participation in Webinar -5

### Conference / Seminar / Workshop Organized -8

### Membership in Professional Bodies

Name of the Professional Body	Nature of membership	Duration
NPTEL Local Chapter	SWAYAM Online Courses	Life Membership
Internet Society	Professional Networking	Life Membership

### Awards/Honors

Awards/Honors	Agency/Institute	Year of Award
Best Faculty Award	PSGRKCW	2017
Appreciation Award	Swayam NPTEL	2019
Appreciation Award	Swayam NPTEL	2020
Appreciation Award	Swayam NPTEL	2021
Appreciation Award	Swayam NPTEL	2022
Appreciation Award	Swayam NPTEL	2023

Appreciation Award	Swayam NPTEL	2024
Appreciation Award	Lions Club of Coimabto	2024
Appreciation Award	Swayam NPTEL	2025

## Contribution

- Board of Study - Chairman
- E-Content Development Team Member (2007-2010)
- Staff club Coordinator (2008-2009)
- Myclassroom LMS coordinator (2016 to 2021)
- Swayam - NPTEL Coordinator (2016 to till date)
- Criteria 4 Member (2018 to till date)
- Chief Superintend for End Semester Examination (2019-2020)
- Admission Counselling duty incharge (2020 to 2024)
- College Calender (2019 - 2022)
- Block Coordinator (2022 to 2023)
- NIRF Team member (2022 to till date)
- Website Team Member (2023)
- Academic Coordinator (2024 to till date)
- ERP Coordinator(2024 to till date)