# **CURRICULUM VITAE**

# Dr. K. SEETHARAMAN, Ph.D.,

Professor

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## **Professional Objectives**

I feel it is a grace and gift of God that I am a faculty at the university level since nothing happens without the notice of God; the teaching profession is an opportunity to teach students, especially those belonging to oppressed groups. I like to work dedicatedly for the betterment and growth of the organization, which gives me an opportunity to develop and improve my career.

I like to utilize the facilities available in the organization correctly and provide the best services that enrich the institution's name worldwide.

## **Educational Qualification**

• **Ph.D.** (Computer Science and Engineering), Annamalai University, 2006.

**Area**: Digital Image Processing

**Thesis Title**: A Common Framework for Texture Analysis, Edge Detection and Compression in Monochrome Images Based on A New Family of Full Range Autoregressive Models.

- **M.Tech.** (Computer and Information Technology), M.S. University, 2013.
- M.S. (Software Systems), BITS, Pilani, 1996.
- **PBDCA** Post B.Sc. Diploma in Computer Applications, Annamalai University, 1991.
- M.Sc. (Statistics), Annamalai University, 1990.
- **B.Sc.** (Mathematics), Madurai Kamaraj University, 1987.

# Total Working Experience: 32+ years (Inclusive of all categories of below)

• **Teaching Experience** : 25 years (Both PG & UG)

• **Administrative Experience**: 10+ years

• **Research Experience** : 22+ years

• **Technical Experience** : 7 years and 4 months.

## **Professional Experience**

- Presently working as *Professor* in the Department of Computer and Information Science since *April 3, 2023*.
- Registrar (F.A.C.) of Annamalai University, from December 27, 2021 to April 3, 2023.
- Professor and Head, 8 months, from May 6, 2021 to December 26, 2021, Department of Computer and Information Science, Faculty of Science, Annamalai University.
- Professor, 5 years and 11 months, from July 1, 2015 to May 5, 2021, Department of Computer and Information Science, Faculty of Science, Annamalai University.
- Professor and Head, 2 years, from July 1, 2013 to June 30, 2015
   Computer Science and Engineering Wing, Directorate of Distance Education, Annamalai University, from July 1, 2013 to June 30, 2015.
- Associate Professor and Head, 3 years, from July 1, 2010 to June 30, 2013, Computer Science and Engineering Wing, Directorate of Distance Education, Annamalai University.
- Reader and Head, 3 years, from July 1, 2007 to June 30, 2010, Computer Science and Engineering Wing, Directorate of Distance Education, Annamalai University.
- Programmer (Senior Scale), 1 year and 10 months, from August 4, 2005 to June 30, 2007, Computer Science and Engineering Wing, Directorate of Distance Education, Annamalai University.
- Programmer, 6 years, from August 4, 1999 to August 3, 2005, Department of Computer Science and Engineering, Faculty of Engineering and Technology, Annamalai University.

#### **Administrative Experience:** 10+ Years

➤ **Registrar (F.A.C.),** One Year 3+ months, of Annamalai University from December 27, 2021 to April 3, 2023..

- ➤ **Head**, Eight months, of the Department of Computer & Information Science. from May 2021 to December 2021. The Department offers Seven programmes: MCA, M.Sc. (Information Technology/Software Engineering Five year Integrated Programmes), M.Sc. (Computer Science/ Data Science), and Ph.D. (Computer Science/Computer Applications).
- ➤ **Head**, Eight Years, from July 2007 to June 2015, of the Computer Science & Engineering Wing, Directorate of Distance Education, Annamalai University.

During this period, he served as a **member of the BoS** of Computer Science & Engineering; **Chairman of the Central Valuation** for the programmes offered by the Directorate of Distance Education of Annamalai University. Also, curriculums have been designed and developed for 15 graduate, postgraduate, P.G. Diploma, and Diploma programmes. Further

## **Research Experience: 20+** years (From 1992 to till date)

• Consultancy work (1992 - till date): Performing Statistical Analyses on data collected for research purposes and interpreting the results obtained by the statistical software — SPSS, IRRISTAT, SX, SAS etc. — for researchers in various disciplines like Social Sciences and pure Sciences. Identifying the nature of the data and applying appropriate Statistical tools on the data collected by researchers in the disciplines of Commerce and Management; the data are related to Marketing Strategies, Human resources, Finance, Actuarial, etc.

Analysing the data collected by the researchers in Agricultural studies and applying the appropriate Statistical tools. The data are related to studying the interactions of the pesticides applied on various crops, fields, timings, etc.

• **Self-Research** (2006 – till date): Guiding scholars in Computer Science and Engineering and carrying out Major Research Projects sponsored by the funding agencies like UGC, DST, etc. During this period, 10 M.Phil. degrees and 15 Ph.D. degrees have been awarded; and more than 112 noteworthy research articles have been published in journals and conferences, which are published by the Elsevier, Springer, Taylor and Francis, ACM Digital Library, IEEE Xplore, etc.

**Technical Experience (April, 1992 - August, 1999):** 7 years and 4 months.

Maintaining the Computer Lab in the Department of Statistics and assisting the students of M.Sc. Statistics with Computer Applications programme to learn Statistical software (SPSS, SX, IRRISTAT, etc.) and developed programs in C, C++ and FORTRAN 77 languages for solving statistical problems.

## Statutory Body and Responsibilities

- 1. Member Governing Council, Muthiah Polytechnic College, Annamalai Nagar, from 01.08.2022 to 03.04.2023.
- 2. *Member Academic Council, Annamalai University*, Annamalai Nagar from July 2007 to November 2012.

## Member - Board of Studies (BoS)/Committee

- 1. Member BoS, Department of Computer & Information Science, *Annamalai University*, Annamalai Nagar from July 2017 to till date.
- 2. Member BoS, Department of Information Technology, *Manonmaniam Sundaranar University*, Tirunelveli from 06.08.2021 to 05.08.2024.
- 3. Member BoS, Department of Information Technology, *Manonmaniam Sundaranar University*, Tirunelveli from 01.08.2018 to 31.07.2021.
- 4. Subject Expert BoS, Department of Computer Science, *Mother Teresa Women's University*, Kodaikanal, from 2021 to 2022.
- 5. Member BoS, Department of Computer Applications, *Alagappa University*, Karaikudi from 2021 to 2022.
- 6. Member BoS, Department of Computer Science & Engineering, Annamalai University, Annamalai Nagar from July 2007 to June 2015.
- 7. Member BoS, St. Joseph's College of Arts & Science, Cuddalore from July 2012 to June 2015 (Thiruvalluvar University Nominee).
- 8. Member BoS, *SNR* and *Sons* College of Arts and Science, Coimbatore from July 2013 to June 2015 (Bharathiar University Nominee).
- 9. Convener BoS, P.G. Diploma Programmes in Engineering Discipline, *Bharathidasan University*, Tiruchirapalli on ad hoc for the year 2013.
- 10. Member BoS, AVC College of Arts & Science, Mayiladuthurai from July 2008 to June 2011 (Bharathidasan University Nominee).
- 11. Member (Subject Expert) Syllabus Equivalence and Curriculum Design Committee, Tamil Nadu State Council for Higher Education, Government of Tamil Nadu, from November 2017 to December 2019.

#### Panel Member - Selection Board

- 1. Member Subject Expert Panel, Selection Committee for the conduct of Interview under Career Advance Scheme to the Department of Computer Science and Technology, Sri Krishnadevaraya University, Ananthapuramu, Anthrapradesh on 11.11.2022.
- 2. Member of the Committee for the selection of Principal of the NGM College (Autonomous), Pollachi, Tamil Nadu, on 06.08.2021.
- 3. *Member Subject Expert Panel*, Selection Committee for the conduct of Entrance Examination, testing Practical Knowledge, and Interview for the Post of Computer Designer (Web and Sculpture) in the Computer-oriented Sculpture Laboratory to the Department of History and Sculpture, *Tamil University*, *Thanjavur* on 23.09.2019.
- 4. *Member Subject Expert Panel*, for the selection Lecturer post to the Department of Computer and Engineering, and Department of Computer Applications, *Mailam Engineering College*, Mailam, Villupuram District, on 11.06.2010.
- 5. *Member Subject Expert Panel*, for the selection Lecturer post to the Department of Computer Science, and the Department of Computer Applications, *Jawahar Science College*, Neyveli, Coddalore District, in June 2007.

# Participation and Contributions in Relevant Areas in Higher Education

#### a) Accreditation

➤ Assessor – National Assessment and Accreditation Council (NAAC), Ministry of Education, Government of India, since 2019.

Served as Member-Coordinator of the Peer Team Visits.

#### **Number of Institutions Visited: 09**

### b) Affiliation Committee:

- 1. Member & Convener, Affiliation Committee, Thiruvalluvar University, Vellore, in 2023 and 2024.
- 2. Convener, Affiliation Committee, Anna University, Chennai, in 2010.
- 3. Member, Affiliation Committee, Anna University, Chennai, in 2010.
- 4. *Member & Chairman*, Affiliation Committee, *Anna University*, *Trichy*, in 2009-2010.

# **Curriculum Design and Development**

He has designed and developed curriculum, including the syllabus, for the following programmes offered by the Department of Computer & Information Sciences, Annamalai University, through Regular and distance modes during the academic year 2015 – 2016.

## Regular Mode:

- M.Sc. Data Science
- M.Phil. in Computer Science
- Ph.D. in Computer Science
- Ph.D. Computer Applications

#### Distance Mode:

- P.G. Diploma in Internet Technology
- P.G. Diploma in Mobile Computing
- P.G. Diploma in Data Mining
- P.G. Diploma in Cyber Security
- Certificate in Android OS (On-line Programme)

He significantly contributed to design and development of the following programmes:

- B.Sc. Multimedia
- B.Sc. Digital Media
- B.Sc. IT and Infrastructure Management
- M.Sc. Visual Communication
- M.Sc. Graphics and Animation
- M.Sc. Mobile Gaming and Information Technology
- M.Sc. Data Science
- P.G. Diploma in Multimedia
- P.G. Diploma in Visual Effect
- P.G. Diploma in Animation

#### Memorandum of Understanding Inked

- 1. An MoU was inked with the *INTI International University, Malaysia*, for collaborative work in research, staff and students exchange, in 2023.
- 2. An MoU was inked with the *Central Institute of Classical Tamil, Chennai*, to establish a *Thirukkural Chair* of Annamalai University to promote Research and Classical Tamil Literature with particular emphasis on Thirukkural, on 21.12.2022.

- 3. A collaboration was inked with the *Biomedical Science Research Institute of Ulster University, Northern Ireland* includes joint *publications, exchange of information, and carrying out research* in *microbial biosurfactants*. This collaboration benefits the students and faculties of both institutions.
- 4. Memorandum of Understanding inked for creation and functioning of Dr. Ambedkar Chair in Annamalai University and Dr. Ambedkar Foundation, Ministry of Social Justice and Empowerment, Government of India, New Delhi.

## **International Academic Exposure**

#### **Research Fellow**

1. Prof. Seetharaman has been appointed, by invitation, as a *Research Fellow* in the INTI International University, Malaysia, with effect from 15 December 2023 to 31 December 2025.

#### **MoU Inked**

2. Collaboration inked with the Biomedical Science Research Institute of Ulster University, Northern Ireland includes joint publications, exchange of information, and carrying out research in microbial biosurfactants. This collaboration benefits the students and faculties of both institutions.

## **Countries Visited and Conference Participation**

- 1 **United Kingdom** From 08-07-2022 to 18-07-2022, under Faculty Exchange programme and Signing an MoU with *Ulster University*, *Northern Ireland*.
- 2 **Singapore** From 23-06-2017 to 28-06-2017, for attending an International Conference on Graphics and Signal Processing, Organized by the International Association of Information Technology at *Nanyang Technological University, Singapore*.
- 3 **Singapore** One day on 03-12-2016, personal visit at *Nanyang Technological University*, *Singapore*.
- 4 **Indonesia** From 28-11-2016 to 02-12-2016, for attending an International Symposium on Electronics and Smart Devices, Organized by the *Pusat Mikroelektronika*, *Microelectronics Centre*, *Institut Technologi*, *Bandung*, *Indonesia* with the support of the IEEE Section, Indonesia.
- 5 **Thailand** From 06-12-2013 to 10-12-2013, for attending an International Conference on emerging Trends in Engineering and

Technology, Organized by the *International Institute of Engineers*, *Thailand*.

6 Malaysia – From 17-11-2009 to 23-11-2009, for attending an International Conference on Signal and Image Processing Applications, Organized by the IEEE Signal Processing Society, Malaysia Section.

## **Patent Granted**

Tilted of the Invention : A Method of Retrieving Satellite Image

Application Number : 202241031679

Grant Number : 418134

Date Granted : 16/01/2023

Patentee : Annamalai University

Inventor : Dr. K. Seetharaman

#### **Honors and Awards**

1 *AD Scientific Index* Ranked and listed Dr. K. Seetharaman in the World's and Country's Top 2% Scientists list in the specified rank, based on the Total H index in 2023 and 2024.

- 2 Certificate of Reviewing awarded by the Journal Swarm and Evolutionary Computation (Elsevier) in June 2018.
- 3 Best paper award for the article presented at the International Conference on Intelligent Sustainable Systems (ICISS'17), SCAD Institute of Technology, Tamil Nadu, India, December 07-08, 2017.
- 4 Outstanding Scientist award for the contribution and achievement in the field of Image Processing, awarded by the Centre for Advanced Research and Design, Venus International Foundation, India, in November 2017.
- 5 Certificate of Reviewing awarded by the Journal Knowledge-Based Systems (Elsevier) in November 2017.
- 6 Certificate of Reviewing awarded by the Journal Computers and Electronics in Agriculture (Elsevier) in October 2017.
- 7 Certificate of Reviewing awarded by the Journal Pattern Recognition (Elsevier) in August 2016.
- 8 Certificate of Reviewing awarded by the Journal Pattern Recognition (Elsevier) in June 2016.

#### Research Guidance

Number of M.Phil. Awarded : 11

Number of Ph.D. Awarded : 21

Number of Ph.D. Submitted : 02

# **Areas of Specialization**

- Artificial Intelligence, Pattern Recognition and Scene Analysis.
- Digital Image Processing including Medical Image.
- Computer Vision and Machine Learning.
- Data Mining and Knowledge Discovery.
- Big-Data Analytics and Data Science.

#### **Research Publications**

**Total Number of Publications**: 114

• Journals : 69

• Conferences : 34

• Magazines : 01

• Book(s) : 02

• Book Chapters : 07

• Patent Granted : 01

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Scopus-id: <u>15049831100</u>

GoogleScholar-id:

https://scholar.google.co.in/citations?user=\_svuOL8AAAAJ&hl=en

#### **International Journals**

- 1. Vasanthi, M. and **Seetharaman, K.** (2023). Rice Grains Classification and Quality Analysis Based on Morphological Features with Deep Learning Methods, *IAENG Journal of Computer Science* (Accepted for publication; Manuscript Number: IJCS\_230824Q) (**Scopus Indexed**; ISSN: 1819-9224).
- 2. **Seetharaman, K.** and Vasanthi, M. (2023). Satellite imagery retrieval based on adaptive Gaussian Markov random field model with Bayes deep convolutional neural network, *Soft Computing*, DOI:

- 10.1007/s00500-023-09418-9, (SCI Indexed; Impact Factor: 4.1; Springer Nature; ISSN: 1432-7643).
- 3. Suresh, G. and **Seetharaman, K. (2023).** Robust groundnut leaf disease detection using orca predation algorithm with two-tier deep transfer learning model, European Chemical Bulletin, 12(1), pp. 5144 5155 (ISSN: 2063-5346). (**Scopus Indexed**; ISSN: 20655346)
- 4. Selvakumar, V. and **Seetharaman, K.** (2023). HOML-SL: IoT Based Early Disease Detection and Prediction for Sugarcane Leaf using Hybrid Optimal Machine Learning Technique, *Journal of Survey in Fisheries Sciences* 10(2S), 3284-3309 (**SCI Indexed; Impact Factor: 0.69;** ISSN: 2368-7487)
- 5. Selvakumar, V. and **Seetharaman, K.** (2022). HML-SL: A hybrid machine learning technique for sugarcane leaf disease detection, *NeuroQuantology*, 20(19), 1605-1629, doi: 10.48047/nq.2022.20.19.NQ99145, (**Scopus Indexed**; ISSN: 1303-5150)
- Sathiyaprasad, B., Seetharaman, K., (2022). Unsupervised learning-based recognition and extraction for intelligent automatic video retrieval, *The Photogrammetric Record*, 37(180), 453-489, doi.org/10.1111/phor.12427 (SCI Indexed; Impact Factor: 2.618; ISSN: 1477-9730)
- 7. Mahendran, T. and **Seetharaman, K.** (2022). Banana Leaf Disease Detection Using Glcm Based Feature Extraction And Classification Using Deep Convoluted Neural Networks (Dcnn), *Journal of Positive School Psychology*, 6(10), 2553-2562. (**Scopus Indexed**; ISSN: 2717-756)
- 8. Subramanyam Rallabandi, V.P. and **Seetharaman, K.** (2022). Deep learning-based classification of healthy aging controls, mild cognitive impairment and Alzheimer's disease using fusion of MRI-PET imaging, *Biomedical Signal Processing and Control*, 80, 104312, https://doi.org/10.1016/j.bspc.2022. (**SCI Indexed; Impact Factor:** 5.1; Elsevier; ISSN: 1746-8094)
- Subramanyam Rallabandi, V.P. and Seetharaman, K. Classification of cognitively normal controls, mild cognitive impairment and Alzheimer's disease using transfer learning approach, Biomedical Signal Processing and Control, 79, <a href="https://doi.org/10.1016/j.bspc.2022.104092">https://doi.org/10.1016/j.bspc.2022.104092</a>. (SCI Indexed) (SCI Indexed; Impact Factor: 5.1; Elsevier; ISSN: 1746-8094)
- 10. Kumar, B.S., **Seetharaman, K.** (2022). Content based video retrieval using deep learning feature extraction by modified VGG\_16. *Journal of Ambient Intelligence and Humanized Computing*, 13(9), 4235-4247,

- https://doi.org/10.1007/s12652-022-03869-y. (**ScopusI Indexed**; ISSN: 1868-5137).
- 11. Suresh, G., **Seetharaman, K.** (2022). Real-time automatic detection and classification of groundnut leaf disease using hybrid machine learning techniques. *Multimed Tools and Applications*, 82 (2), 1935-1963. https://doi.org/ 10.1007/s11042-022-12893-1. (**SCI Indexed; Impact Factor: 3.6; Springer Nature;** ISSN: 1380-7501)
- 12. **Seetharaman, K.**, Mahendran, T. (2022). Leaf Disease Detection in Banana Plant using Gabor Extraction and Region-Based Convolution Neural Network (RCNN). *Journal of Institution of Engineers (India):* Series A, 103(2), 501-507, <a href="https://doi.org/10.1007/s40030-022-00628-2">https://doi.org/10.1007/s40030-022-00628-2</a>. (**SCI Indexed; Impact Factor: 0.323; Springer Nature;** ISSN: 2250-2149)
- 13. Kalaivani, S., **Seetharaman, K.** (2022). A three-stage ensemble boosted convolutional neural network for classification and analysis of COVID-19 chest X-ray images, *International Journal of Cognitive Computing in Engineering*, 3, 35-45. (**SCI Indexed; Impact Factor:** 1.015; Elsevier; ISSN: 2666-3074)
- 14. **Seetharaman, K.**, Mahendran, T., (2021). Detection of Disease in Banana Fruit using Gabor Based Binary Patterns with Convolution Recurrent Neural Network, *Turkish Online Journal of Qualitative Inquiry* (TOJQI), 12 (9), 6958-6966. (**Scopus Indexed**; ISSN: 1309-6591)
- 15. Sathiya Prasad, B., **Seetharaman, K.** (2021). Medical Surgical Video Recognition and Retrieval Based on Novel Unified Approximation, *Journal of Medical Imaging and Health Informatics*, 11(11), pp. 2733-2746; DOI: https://doi.org/10.1166/jmihi.2021.3874; (**Scopus Indexed**; ISBN: 2156-7018).
- 16. Pooranachandranm C., Chembian, W.T., **Seetharaman, K**. (2021). Image Retrieval Based on Adaptive Gaussian Markov Random Field Model with Bayes Back-propagation Neural Network, *SN Computer Science*, 3(31), pp. 1-31; (**Scopus Indexed**; Springer Nature; ISSN: 2662-995X).
- 17. Amutha, A., **Seetharaman**, K. Ashish, A., (2021). Cyber Security by Prediction of Time Synchronization using Bayesian Base Gradient Descent Approach, *Journal of Scientific & Industrial Research*, 80, 347-353 (**SCI Indexed; Impact Factor: 1.056**; ISSN: **0975-1084**).
- 18. Kumar, B.S., **Seetharaman, K**. (2021). Video sequence feature extraction and segmentation using likelihood regression model. *Multimedia Tools and Applications*, 80(16), pp. 24343–24361. (**SCI Indexed; Impact Factor: 3.6; Springer Nature;** ISSN: 1380-7501)
- 19. Amutha, A., **Seetharaman, K**., Ashish, A. (2021). Design and Development of a Cyber Security Framework for National Time

- Dissemination. SN Computer Science. 2, 77. DOI: 10.1007/s42979-021-00471-5 (**Scopus Indexed**; Springer Nature; ISSN: 2662-995X).
- 20. Vasanthi, M., Seetharaman, K. (2021). A Hybrid Method for Biometric Authentication Oriented Face Detection Using Autoregressive Model with Bayes Backpropagation Neural Network, Soft Computing, 25, 1659–1680; DOI: 10.1007/s00500-020-05500-8. (SCI Indexed; Impact Factor: 4.1; Springer Nature; ISSN: 1432-7643)
- 21. Vasanthi, M., **Seetharaman, K.** (2022). Facial Image Recognition for Biometric Authentication Systems Using A Combination of Geometrical Feature Points and Low-level Visual Features, *Journal of King Saud University Computer and Information Sciences*, 34(7), 4109-4121; DOI: 10.1016/j.jksuci.2020.11.028, (**SCI Indexed; Impact Factor: 6.9; Elsevier;** ISSN: 1319-1578)
- 22. Sathiyaprasad, B., **Seetharaman, K.** (2019). Text-Image Queries based Video Retrieval using Image Ontology Queries Formation, *Journal of Advanced Research in Dynamical & Control Systems*, Vol. 12 (12), pp. 1750-1769 (**Scopus Indexed**; ISSN: 1943-023X).
- 23. **Seetharaman, K.** (2019). Melanoma Image Classification Based on Color, Shape, and Texture Features Using Multivariate Statistical Tests: *Journal of Computational and Theoretical Nano Science*, 16(4), 1717–1724. (**SCI Indexed; Impact Factor: 0.173;** ISSN: 1546-1955)
- 24. Selvaraj, S., **Seetharaman, K.** (2019). Content Based Image Retrivel on Non-Parametric Statistical Tests of Hypothesis, *International Journal of Computer Sciences and Engineering*, 7(1): 563-568. (ISSN: 2347-2693 UGC Listed in 2019).
- 25. **Seetharaman, K.,** Chembian, W. T. (2019). Color Image Retrieval Based on Adaptive Statistical Distance Measure with Local: *International Journal of Advanced Scientific Research and Management*, 4(4), 162-173. (ISSN: 2455-6378; UGC Listed in 2019).
- 26. **Seetharaman, K.,** Chembian, W. T. (2018). Multispectral Satellite Imagery Retrieval Based on Probabilistic Distance Measure: *International Journal of Research in Electronics and Computer Engineering*, 6(4), 1358-1363. (ISSN: 2348-2281; UGC Listed in 2018).
- 27. Selvaraj, S., **Seetharaman**, **K.** (2018). Color Image Retrieval Based on Chernoff Distance Measure: *International Journal of Computer Sciences and Engineering*, 6(9), 329-333. (ISSN: 2347-2693; UGC Listed in 2018).
- 28. **Seetharaman, K.,** Gomathi, D. (2018). Content-Based Image Retrieval Based on Statistical Properties: *International Journal of Data Mining and Emerging Technologies*, 8(1), 58-65. (ISSN: 2249-3212; UGC Listed).

- 29. **Seetharaman, K.,** Ramesh Babu, H. (2018). Image Inpainting Using Second-Order Derivative-Based Autoregressive Model: *International Journal of Electrical Electronics & Computer Science Engineering*, 5(1), 24-28. (ISSN: 2454-1222; UGC Care Listed).
- 30. Gomathi, D., **Seetharaman**, **K.** (2018). Object Classification Techniques using Tree Based Classifiers: *International Journal on Future Revolution in Computer Science & Communication Engineering*, 4(1), 271-276. (ISSN: 2454-4248; UGC Care Listed).
- 31. **Seetharaman, K.,** Selvaraj, S. (2016). Statistical Tests of Hypothesis-Based Color Image Retrieval: *Journal of Data Analysis and Information Processing*, 4(2), 90-99. (ISSN: 2327-7211; UGC Care Listed).
- 32. **Seetharaman**, **K.,** Palanivel, N., and Vasanthapriya, M. (2016). An Efficient Real Time People Counting System Based on Identification and Tracking Using Surveillance Camera: *International Journal of Advanced Research in Computer Science Engineering and Information Technology*, 4(3), 495-501. (ISSN: 2321-3337; UGC Listed).
- 33. **Seetharaman, K.,** Muthukumar, S. (2016). A Distributional Approach for Image Retrieval Using Hotelling's T-Square Statistic: *ICTACT Journal on Image and Video Processing*, 6(3), 1207-1212. (ISSN: 0976 9099; UGC Care Listed).
- 34. **Seetharaman, K.,** Kumar, B. S. (2015). Texture and Color Features Based Color Image Retrieval using Canonical Correlation: *Global Journal of Researches and Engineering*, 15(6), 1-9. (ISSN: 0975-5861).
- 35. **Seetharaman, K.,** Sathiamoorthy, S. (2016). A Unified Learning Framework for Content Based Medical Image Retrieval Using a Statistical Model: *Journal of King Saud University Computer and Information Sciences*, 28(1), 110–124; DOI: 10.1016/j.jksuci.2014.10.006. (**SCI Indexed; Impact Factor: 6.9; Springer Nature;** ISSN: 1319-1578)
- 36. Ragupathy, R., **Seetharaman, K**., Saveetha, M. (2015). Embedding Error Based Data Hiding in Videos with Distortion Tolerance, *International Journal of Applied Engineering Research*, 10(8), pp. 6186-6190. (**Scopus Indexed**; ISSN: 0973-4562).
- 37. **Seetharaman, K.,** Shekhar, R. (2015). Color Image Retrieval Based on Feature Fusion through Multiple Linear Regression Analysis: *ICTACT Journal on Image and Video Processing*, 6(1), 1666-1071. (ISSN: 0976-9099).
- 38. Selvaraj, S., **Seetharaman, K.** (2015). CBIR Based on Non-Parametric Statistical Tests of Hypothesis: *Australian Journal of Basic and Applied Sciences*, 9(11), 322-328 (**Scopus indexed**; ISSN: 1991-8178).
- 39. **Seetharaman, K.** (2015). Image Retrieval Based on Micro-level Spatial Structure Features and Content Analysis Using Full Range Gaussian

- Markov Random Field Model: Engineering Applications of Artificial Intelligence, 40, 103-116. (**SCI indexed**; **Impact Factor: 8.0**; **Elsevier**; ISSN: 0952-1976).
- 40. Thillaikarasi, M., **Seetharaman, K**. (2015). Efficiency of Test Case Prioritization Techniques Based on Practical Priority Factors: *International Journal of Soft Computing*, 10(2), 183-188. (**Scopus indexed**; ISSN: 1816-9503).
- 41. Annamalai Giri, A., **Seetharaman, K.** (2014). Color Image Retrieval Based on Full Range Color Image Retrieval Based on Full Range Gaussian Markov Random Field Model: *International Journal of Innovative Research in Advanced Engineering*, 1(1), 62-70. (ISSN: 2349-2163; UGC Care Listed).
- 42. **Seetharaman, K.,** Jeyakarthic, M. (2014). Color Image Retrieval Based on Non-parametric Statistical Tests of Hypothesis: *International Journal of Emerging Technology and Advanced Engineering*, 4(8), 750-756. (**Scopus Indexed**; ISSN: 2250-2459).
- 43. **Seetharaman, K.,** Kamarasan, M. (2014). Statistical Framework for Content-Based Medical Image Retrieval Based on Orthogonal Polynomial with Multiresolution Structure: *International Journal of Multimedia Information Retrieval*, 3(1), 53-66. (**SCI Indexed; Impact Factor: 5.6; Springer Nature;** ISSN: 2192-6611)
- 44. **Seetharaman, K.,** Sathiamoorthy, S. (2014). A Framework for Color Image Retrieval Using Full Range Gaussian Markov Random Field Model and Multi-class SVM Learning Approach: *International Journal of Advanced Research in Engineering*, 1(7), 53-63. (ISSN: 2349-2163).
- 45. **Seetharaman, K.,** Sathiamoorthy, S. (2014). Color Image Retrieval Using Statistical Model and Radial Basis Function Neural Network, *Egyptian Informatics Journal*, 15(1), 59-68. (**SCI Indexed; Impact Factor: 5.2; Elsevier;** ISSN: 1110-8665)
- 46. Thillaikarasi, M., **Seetharaman, K**. (2014). Effectiveness of Test Case Prioritization Techniques Based on Regression Testing, *International Journal of Software Engineering & Applications*, 5(6), pp. 113-123; *DOI:* 10.5121/ijsea.2014.5608. (ISSN: 0975-9018).
- 47. Thillaikarasi, M., **Seetharaman, K**. (2014). Comparisons of Test Case Prioritization Algorithm with Random Prioritization: *International Journal of Computer Science and Information Technologies*, 5(5), 6814-6818. (ISSN: 0975-9646; UGC Care List).
- 48. Thillaikarasi, M., **Seetharaman, K**. (2014). Regression Testing in Developer Environment for Absence of Code Coverage: *Journal of Software Engineering and Applications*, 7(8), 617-625. (UGC Care List; ISSN: 1945-3116).

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- 50. **Seetharaman, K.**, Palanivel, N., Sowmya, D. (2014). Video Segmentation in Dynamic Texture Using Weber's Law for Monitoring Different Environments: *International Journal of Innovative Science, Engineering and Technology*, 1(2), 230-234. (ISSN: 2348-7968).
- 51. **Seetharaman, K.**, Palanivel, N., and Indumathi, R. (2014). Post Invariant Face Recognition Using HMM and SVM with PCA for Dimensionality Reduction: *International Journal of Advanced and Innovative Research*, 3(1), 171-176. (ISSN: 2278-7844).
- 52. **Seetharaman, K.**, Palanivel, N., and Maruthavanan, K. (2014). Histogram validated object removal strategy using spatiogramic technique: *International Journal of Advanced Research in Computer Science Engineering and Information Technology*, 3(2), 1-7. (ISSN: 2347-9817).
- 53. **Seetharaman, K.** and Jeyakarthic, M. (2014). Statistical Distributional Approach for Scale and Rotation Invariant Color Image Retrieval Using Multivariate Parametric tests and Orthogonality Condition: *Journal of Visual Communication and Image Representation*, 25(5), 727-739. (**SCI Indexed; Impact Factor: 2.6; Elsevier;** ISSN: 1047-3203)
- 54. **Seetharaman, K.** and Kamarasan, M. (2014). Statistical Framework for Image Retrieval Based on Multiresolution Features and Similarity Method: *Multimedia Tools and Applications*, 73(3), 1943-1962; DOI:10.1007/s 11042-013-1637-z. (**SCI Indexed; Impact Factor: 3.6; Springer Nature;** ISSN: 1380-7501)
- 55. Thillaikarasi, M., **Seetharaman, K**. (2013). A Test Case Prioritization Method with Weight Factors in Regression Testing Based on Measurement Metrics: *International Journal of Advanced Research in Computer Science and Software Engineering*, 3(12), pp, 53-66. (ISSN: 2277-128X).
- 56. **Seetharaman, K.** and Palanivel, N. (2013). Texture Characterization, Representation, Description and Classification Based on a Family of Full Range Gaussian Markov Random Field Model: *International Journal of Image and Data Fusion*, 4(4), 342-362. (**SCI Indexed**; *Impact Factor: 2.3; Taylor and Francis*; ISSN: 1947-9832)
- 57. Siddarth, C. and **Seetharaman, K.** (2013). Ontology-Based Middleware Architecture for Context Aware Service Discovery: *European Journal of Scientific Research*, 101(2), 303-317. (**Scopus Indexed**; ISSN: 1450-202X)

- 58. Siddarth, C. and **Seetharaman, K.**, (2013). A Cluster Based QoS Aware Service Discovery Architecture Using Swarm Intelligence: *Communications and Network*, 5(2), 161–168. (ISSN: 1949-2421; UGC Care Listed)
- 59. **Seetharaman, K.** and Rekha, V. (2013). Near-Lossless Compression Based on A Family of Full Range Autoregressive Model for 2D Monochrome Images: *Journal of Signal and Information Processing*, 4(1), 10 23. (ISSN: 2159-4465); DOI:10.4236/jsip.2013.41002.
- 60. Seetharaman, K. (2012). A Block-oriented Restoration in Grayscale Images Using Full Range Autoregressive Model: Pattern Recognition, 45(4), 1591-1601; DOI:10.1016/j.patcog.2011.10.020. (SCI Indexed; Impact Factor: 8.0; Elsevier; ISSN: 0031-3203)
- 61. **Seetharaman, K.** and Ragupathy, R. (2012). A Novel Biometric Cryptosystem using LDPC and SHA based Iris Recognition: *International Journal of Applied Information Systems*, 4(1), 41–47. (ISSN: 2249-0868).
- 62. Seetharaman, K. and Ragupathy, R. (2012). LDPC and SHA-based iris recognition for image authentication: Egyptian Informatics Journal, 13(3), 217–224, (SCI Indexed; Impact Factor: 5.2; Elsevier; ISSN: 1110-8665)
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- 64. **Seetharaman, K.** and Ragupathy, R. (2012). Iris recognition for personal identification System, *Procedia Engineering*, 38, 1531-1546, (**Scopus Indexed; Elsevier;** ISSN: 1877-7058)
- 65. **Seetharaman, K.** and Hemalatha, T. (2011). A Simple but Efficient Scheme for Colour Image Retrieval Using Statistical Tests of Hypothesis: *ICTACT Journal on Image and Video Processing*, 1(3), 166-171. (ISSN: 0976-9099).
- 66. **Seetharaman, K.** and Krishnamoorthi, R. (2007). A Statistical Framework Based on A Family of Full Range Autoregressive Models for Edge Extraction: *Pattern Recognition Letters*, 28(7), 759-770. (**SCI Indexed; Impact Factor: 5.1; Elsevier;** ISSN: 0167-8655)
- 67. Krishnamoorthi, R. and **Seetharaman, K.** (2007). Image Compression Based on A Family Of Stochastic Models: *Signal Processing*, 87(3), 408-416. (**SCI Indexed; Impact Factor: 4.4; Elsevier;** ISSN: 0165-1684)
- 68. Krishnamoorthy, R. and **Seetharaman**, **K**. (2005). Image Compression Using 2-D Autoregressive Model: *Ultra Scientist of Physical Sciences An International Journal of Physical Sciences*, 17(3) M, 343-350. (ISSN: 0970-9150; UGC Care Listed).

#### **National Journals**

1. **Seetharaman, K.** (2015). Colour Image Retrieval Using Canonical Correlation Analysis: *Annamalai University Science Journal*, 49(2), 99-104. (ISSN: 2231 0827).

#### **Conference Proceedings**

## **International Conference Proceedings**

- 1. Mahendran, T., **Seetharaman, K.** (2023). Feature Extraction and Classification Based on Pixel in Banana Fruit for Disease Detection Using Neural Networks, *Third International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies* (ICAECT), 05-06 January 2023, *IEEE Xplore*, 1-7, DOI: 10.1109/ICAECT57570.2023.10117959.
- 2. Suresh, G., **Seetharaman, K**. (2022). Automated Groundnut Leaf Disease Recognition Using Whale Optimization Algorithm with Deep Learning Model, *International Conference on Augmented Intelligence and Sustainable Systems (ICAISS)*, 24-26 November 2022, *IEEE Xplore*, 310-315, DOI: 10.1109/ICAISS55157.2022.10010713.
- 3. V. Lakshmi and **K. Seetharaman**, (2022). Rice Classification and Quality Analysis using Deep Neural Network, International Conference on Intelligent Innovations in Engineering and Technology (ICIIET), 2022, pp. 307-314, 22-24 September 2022, *IEEE Xlore*, doi: 10.1109/ICIIET55458.2022.9967584.
- 4. Satheesh Kumar, B., **Seetharaman, K**., Sathiyaprasad, B. (2022). Content-Based Video Retrieval Based on Security Using Enhanced Video Retrieval System with Region-Based Neural Network (EVRS-RNN) and K-Means Classification. In: Sanyal, G., Travieso-González, C.M., Awasthi, S., Pinto, C.M., Purushothama, B.R. (eds.) International Conference on Artificial Intelligence and Sustainable Engineering, Lecture Notes in Electrical Engineering, Vol. 837. Springer Nature, https://doi.org/10.1007/978-981-16-8546-0\_33.
- V. P. S. Rallabandi and K. Seetharaman (2021). Class Imbalance ML Methods for Classification of Dementia Stage: Kurtosis Fractional Anisotropy: ML-based Classification of Dementia Stage, In Proceedings: 5th International Conference on Intelligent Computing and Control Systems (ICICCS 2021), 6-8 May 2021, IEEE Xplore, pp. 1-5, DOI: 10.1109/ICICCS51141.2021.9432112 (ISBN:978-1-6654-4834-5).
- V. P. S. Rallabandi and K. Seetharaman (2021). Machine Learning-Based Classification of Dementia Types: MRI Study, In Proceedings: International Conference on Artificial Intelligence and Smart Systems, ICAIS 2021, 25-27 March 2021, 2021, IEEE Xplore, pp. 109-114; DOI: 10.1109/ICAIS50930.2021.9395957(ISBN:978-1-7281-9538-4).

- 7. Arunachalam A., **Seetharaman K.**, Agarwal A. (2021). National Time Synchronization Augmenting Cyber Security. In Proceedings: Mahapatra R.P., Panigrahi B.K., Kaushik B.K., Roy S. (Eds) *Proceedings of 6th International Conference on Recent Trends in Computing, Lecture Notes in Networks and Systems*, Vol. 177, Springer, Singapore. DOI: 10.1007/978-981-33-4501-0\_70.
- 8. B. Sathiyaprasad, **K. Seetharaman** and B. S. Kumar, (2020). Content based Video Retrieval using Improved Gray Level Co-Occurrence Matrix with Region-based Pre Convoluted Neural Network–RPCNN, *3rd International Conference on Intelligent Sustainable Systems (ICISS)*, 03-05 December 2020, *IEEE Xplore*, pp. 558-563, DOI: 10.1109/ICISS49785.2020. 9316081; (ISBN:978-1-7281-7090-9).
- 9. Amutha. A, Bhardwaj, T., Pranaleethroat, Bharath, V., Sharma, N., Ashish, A., Anurag, G., **Seetharaman, K.** (2019). Conceptualisation of Cybered Secured Network Architecture for National Timing Ensemble to Strengthen Digital Governance, Organized by CSIR National Physical Laboratory and Metrology Society of India on 22 February 2019 at 10th International Conference on "Advances in Metrology-2019", National Physical Laboratory, New Delhi. Pp. 148 Conference Proceedings of MSI.
- 10. Vasanthi, S. and **Seetharaman. K**., (2019). Face Recognition and Analysis: Literal Survey, *International Conference on Electrical, Communication, Electronics, Instrumentation, and Computing*, Organized by Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kanchipuram, India, on 30<sup>th</sup> and 31<sup>st</sup>, January 2019.
- 11. **K. Seetharaman** and B. Sathiyaprasad (2017). Colour Image Retrieval Based on Mean Vector and Covariance Tests, *In Proceedings: International Conference on Intelligent Sustainable Systems (ICISS'17)*, SCAD Institute of Technology, Tamil Nadu, India, Dec. 07- 08, 2017, *IEEE Xplore*, pp. 627-632; **DOI:** 10.1109/ISS1.2017.8389243 (ISBN: 978-1-5386-1959-9).
- 12. **K. Seetharaman** and D. Meena (2017). Colour Image Retrieval Based on Structural Equation Model and Orthogonality, *In Proceedings: International Conference on Intelligent Sustainable Systems (ICISS'17)*, SCAD Institute of Technology, Tamil Nadu, India, December 07- 08, 2017, *IEEE Xplore*, pp. 621-626; **DOI:** 10.1109/ISS1.2017.8389242 (ISBN: 978-1-5386-1959-9).
- 13. **K. Seetharaman** and W. T. Chembian (2017). Statistical Distribution-Based Color Image Retrieval, *International Conference on Graphics and Signal Processing* (ICGSP2017), Nanyang Technological University, Singapore, 24-28 June 2017, 2017, *ACM Digital Library*,, pp. 6–9; https://doi.org/10.1145/3121360.3121372, (ISBN: 978-1-4503-5239-0).

- 14. **K. Seetharaman** and W. T. Chembian, (2016). Multi-spectral Satellite Color Image Retrieval Based on GMRFM and Back-propagation Algorithm with Artificial Neural Network, *In Proceedings: International Symposium on Electronics and Smart Devices (ISESD 2016)*, Organized by the IEEE Section, Bandung, Indonesia on 29-30 November 2016, Published in *IEEE Xplore*, 2016, pp. 278 282 (ISBN: 978-1-5090-3841-1).
- 15. Thillaikarasi, M., and **Seetharaman, K.** (2014). Measuring The Effectiveness of Test Case Prioritization Techniques Based on Weight Factors, *International Conference on Computer Science & Information Technology*, Organized by AIRCC Bangalore, India, October, 2014, pp. 41–51, DOI: 10.5121/csit.2014.41005 (Corpus ID: 48757937).
- 16. R. Shekhar and **K. Seetharaman (2014).** Color Image Retrieval Based on Non-parametric Statistical Tests of Hypothesis, *International Conference on Data* Mining Organized by AIRCC, Bangalore, India, September 13-14, 2014 In Edited Book: *COSIT, DMIN, SIGL, CYBI, NMCT, AIAPP 2014* Edited by David C. Wyld et al., pp. 131-138, DOI: 10.5121/csit.2014.4912 (ISSN: 2231-5403).
- 17. A. Annamalai Giri and **K. Seetharaman**, (2014). Color Image Retrieval Based on Full Range Autoregressive Model with Low-level Features, *In Proceedings*: Computer Science & Information Technology (CS & IT) Edited by David C. Wyld et al.: *International Conference on Data* Mining Organized by AIRCC, Bangalore, India, September 13-14, 2014; pp. 121-130; DOI: 10.5121/csit.2014.4911;(ISSN: 2231-5403).
- 18. **Seetharaman, K.**, Palanivel, N., Maruthavanan, K., (2014). Object removal strategy using spatiogramic technique, *In Proceedings: International Conference on Information Communication and Embedded Systems (ICICES2014)*, 27-28 February 2014, Chennai, India, Published in IEEE Xplore, 2014, pp. 1-4, DOI: 10.1109/ICICES.2014.7033919.
- 19. K. Seetharaman and S. Sathiamoorthy (2013). An improved edge direction histogram and edge orientation auto correlogram for an efficient color image retrieval," 2013 International Conference on Advanced Computing and Communication Systems, 19-21 December 2013, Coimbatore, India. Published in *IEEE Xplore*, pp. 1-4, DOI: 10.1109/ICACCS.2013.6938725. (ISBN: 978-1-4799-3506-2).
- 20. **K. Seetharaman** and A. Annamalai Giri (2013). Statistical Model Based Color Image Retrieval Using Low-level Features, *In Proceedings: International Conference on Emerging Trends in Engineering and Technology*, Organized by the International Institute of Engineers, Phuket, Thailand, 07-08 December 2013 (ISBN: 978-93-82242-52-9).
- 21. **K. Seetharaman** and M. Jeyakarthic (2013). Color Image Retrieval Based on Multivariate Parametric Tests and Measure of Divergence, *In*

- Proceedings: International Conference on Emerging Trends in Engineering and Technology, Organized by the International Institute of Engineers, Phukat, Thailand, December 07 & 08, 2013 (ISBN: 978-93-82242-52-9).
- 22. **K. Seetharaman** and S. Sathiamoorthy (2013). A Statistical Model Based Color Image Retrieval, *In Proceedings: International Conference on Recent Trends on Computer Applications*, Organized by the Department of Computer Science, Hindustan College of Arts and Science, Chennai, India, 27-28 September 2013 (ISBN: 978-93-81208-25-0).
- 23. Seetharaman K., Ragupathy R. (2013). LDPC and SHA Based Iris Recognition for Smart Card Security. In: Kumar M. A., R. S., Kumar T. (eds) Proceedings of International Conference on Advances in Computing. Advances in Intelligent Systems and Computing, vol 174. Springer Nature, New Delhi. <u>DOI</u>: 10.1007/978-81-322-0740-5\_66
- 24. E. Christopher Siddarth and **K. Seetharaman** (2012). A Cluster Based QoS-Aware Service Discovery Architecture for Mobile Adhoc Networks, *Proceedings of the IEEE International Conference on Computational Intelligence and Computing Research*, Tamil Nadu College of Engineering, Coimbatore, India, 18-20 December 2012, Published in IEEE Xplore, pp. 1-6, (ISBN: 978-1-4673-1342-1).
- 25. **K. Seetharaman** and M. Kamarasan, (2012). A smart color image retrieval method based on multi resolution features, IEEE International Conference on Computational Intelligence and Computing Research, on 18-20 December 2012, 2012, Published in IEEE Xplore, pp. 1-8, DOI: 10.1109/ICCIC.2012.6510194.
- 26. **K. Seetharaman** and V. Rekha, (2012). A Statistical Scheme for Color Image Retrieval, *Proceedings of the International Conference on Emerging Technological Trends in Advanced Engineering Research*, Organized by Baselios Mathews II College of Engineering, Kollam, Kerala, India, 20-21 February 2012, Published in Conference Proceedings (ISBN: 978-93-80624-62-4).
- 27. M. Kamarasan and **K. Seetharaman** (2012). A Hybrid Approach for Color Image Retrieval based on Color Autocorrelogram and Gray-level Spatial Dependency Matrix in Wavelet Domain, *In Proceedings: Second International Conference on Computer Applications*. Organized by Association of Scientist, Developers and Faculties, Pondicherry, India on 27-31 January 2012, (ISBN-13:978-81-920575-9-0).
- 28. **K. Seetharaman**, (2010). Texture Analysis Based on A Family of Stochastic Models, IEEE *Proceedings of the International Conference on Signal and Image Processing Applications*, Organized by IEEE Signal Processing Society, Malaysia Chapter, Malaysia, 17-18 November 2009,

- *Malaysia*, Published in *IEEE Xplorer*, pp. 518-523, DOI:10.1109/ICSIPA.2009.5478711, (ISBN: 978 1 4244 5562 1.
- 29. **K. Seetharaman** (2007). Image Restoration Based on Bayesian Approach, *94<sup>th</sup> Indian Science Congress*, Organized by Annamalai University, Annamalainagar, Tamilnadu, India, 3-7 January 2007.
- 30. R. Krishnamoorthy and **K. Seetharaman** (2005). Image Compression Based on A New Family of Autoregressive Models, *Proceedings of International Conference on Robotics, Vision, Information and Signal Processing*, ROVISP 2005, Organized by the IEEE Chapter Malaysia, Malaysia, 20-22 July 2005, Malaysia, Published in Conference Proceedings, pp.626-630 (ISBN: 983-3391-15-X).

# **National Conference Proceedings**

- 1. **K. Seetharaman** and V. Rekha (2012). Near-Lossless Compression Based on a Full Range Gaussian Markov Random Field Model for 2D Monochrome Images, Proceedings of the National Conference on Web Science and Technology, October 10 & 11, 2012, Department of Computer Science, PSG College of Arts and Science, Coimbatore (ISBN: 938054310-7).
- 2. R. Krishnamoorthy and **K. Seetharaman**, (2004). Edge Detection in 2-D Monochrome Images Using Autocorrelation, *Proceedings of the National Conference on Recent Trends in Digital Image Processing*, October 28 & 29, 2004, pp. 58-61, Department of Computer Science, Yadava College, Madurai, India.
- 3. **K. Seetharaman**, R. Krishnamoorthy and R. Sivasamy (2002). Color Textured Image Compression Using Time Series Model, *Proceedings of the National Symposium on Statistical Methods and Applications*, Organized by Department of Statistics, Annamalai University, Chidambaram, India, March 15-16, 2002, pp. 346-352.
- 4. R. Krishnamoorthy and **K. Seetharaman** (2001). Entropy Constrained Quantization of Transform Coefficients for Image Compression, *Proceedings of the National Conference on Recent Trends in Advanced Computing*, Organized by National Engineering College Kovilpatti and Manonmaniam Sundaranar University Tirunelveli, February 9 & 10, 2001, pp. 87-98, M.S. University, Tirunelveli.

# Magazine

1. A. Amutha, **K. Seetharaman**, A. Ashis (2019). Envisaging National Legal Timing Strategy Towards Augmenting National Security and National Critical Infrastructures, *National Cyber Security Standards Summit 2019 At: IIT, Madras, Chennai, January, 2019*; Published on, *e-MAGAZINE: National Cyber Safety and Security Standards*, 17.09.2019.

#### **Books**

- 1. **Dr. K. Seetharaman**, *Image Processing: Stochastic Model Based Approach*, *LAMBERT Academic Publishing*, Heinrich-Booking-St, 6-8, 66121 Saarbrucken, Deutschland/Germany, 2015, (ISBN: 978-3-659-53215-3).
- 2. **Dr. K. Seetharaman**, *Text*, *Image and Managerial Data Mining*, Annamalai University Press Private circulation, Annamalainagar 608 002, Chidambaram, Tamil Nadu, India.

## **Book Chapters**

- 1. Amutha, A., **Seetharaman**, K., Ashis, A. (2021). Conceptualization Model for Cyber Secure National Time Dissemination System, *Lecture Notes in Networks and Systems*, 167, pp. 173-185; (Springer Nature; ISBN: 978-981-15-9711-4).
- 2. Sathiyaprasad, B., **Seetharaman**, K., Satheeshkumar, B. (2020). Histogram-based Threshold Segmentation of Video Frames Using Otsu's Method, *TEQIP-III Sponsored First International Conference on Innovations and Challenges in Computing, Analytics, and Security,* organized by the Department of Computer Science & Engineering at Pondicherry Engineering College, Puducherry, India, during 29 & 30 July, 2020, Abstract Book (ISBN: 978-81-942709-3-5(eBook)).
- 3. Satheesh Kumar, B and **Seetharaman, K**., and Sathiyaprasad, B., (2020). A Novel Adaboost Regression Classifier for Video Retrieval in Video Sequence, *In Edited Book: Intelligent Systems and Computer Technology* Edited by D.J. Hemanth et al., Pp. 510-516; DOI:10.3233/APC200194 (SAGE Publications; ISBN: 978-1-64368-102-3).
- 4. Nageswari, D., **Seetharaman**, K. (2020). A Distributive Approach for Classification and Identification of Peanut Pods Variety Using Convolutional Neural Networks, *TEQIP-III Sponsored First International Conference on Innovations and Challenges in Computing, Analytics and Security*, Organized by the Department of Computer Science & Engineering at Pondicherry Engineering College, Puducherry, India, during 29 & 30 July, 2020, Abstract Book (ISBN: 978-81-942709-3-5(eBook)).
- 5. **Seetharaman**, K. (2020). A Fully Automated Crop Disease Monitoring and Management System Based on IoT, In Edited Book: Deep Learning Applications and Intelligent Decision Making in Engineering Edited by Karthikrajan Senthilnathan and Balamurugan, S. *IGI Global, New York, USA*, February 2020 pp. 192-211 (ISBN13: 9781799821083).

- Seetharaman, K. (2019). Applications of Image Compression in Agricultural Image Data Analysis. In Edited Book: Applications of Image Processing and Soft Computing Systems in Agriculture. Edited by Navid Razmjooy and Vania V. Estrela. IGI Global, New York, USA, 2019, pp. 208-241 (ISBN13: 9781522577966).
- 7. **Seetharaman**, K. (2018). Melanoma Image Classification Based on Multivariate Parametric Statistical Tests of Hypothesis, *In Edited Book: Advanced Classification Techniques for Healthcare Analysis*, Edited by Chinmay Chakraborty. *IGI Global*, 2018. pp. 89-109. (ISBN13: 9781522577966|ISBN10: 1522577963|EISBN13: 9781522577973).

## R & D Projects Undertaken

1. UGC Sponsored a Major Research Project entitled, *Multi-spectral Remote-sensing Color Image Retrieval Based on a Full Range Gaussian Markov Random Field Model* for a sum of Rs. 10,40,800/- with effect from April 1, 2013 to March 31, 2016. Grant No.: 42-145/2013(SR).

# Member-Doctoral Research Committee / Doctoral Committee / Research Advisor Committee

- 1 Member Doctoral Committee (DC) *Alagappa University, Karaikudi*, Tamil Nadu, India. (from July 2021 onwards).
- 2 Member Doctoral Committee (DC) *VIT University, Vellore*, Tamil Nadu, India. (from July 2017 onwards).
- 3 Member Doctoral Research Committee (DRC) *Annamalai University*, Annamalainagar, Tamil Nadu, India. (from July 2016 onwards in the Faculty of Science).
- 4 Member Doctoral Committee (DC) *Annamalai University*, Annamalainagar, Tamil Nadu, India. (from July 2015 onwards in the Faculty of Engineering; from July 2017onwards in the Faculty of Science).
- Member Doctoral Committee (DC) *Anna University, Chennai*, Tamil Nadu, India. (from July 2010 to till date).

# Refresher Courses / Workshops / Seminars Conducted:

- 1. National Virtual Workshop on *Big Data Analytics in Cloud Computing Using Python Programming (NVW-BACCP'21)* organized by the Department of Computer and Information Science, Annamalai University, on 09-10 July 20121.
- 2. National level Seminar conducted on *Empirical Research Methods on Pattern Analysis* on 8 & 9 April, 2010, *Annamalai University, Annamalainagar, Tamil Nadu, INDIA*.

3. National level workshop conducted on *Data Mining and Its Applications* on 21 & 22 March, 2008, Annamalai University, *Annamalainagar, Tamil Nadu, INDIA*.

## **Membership in Professional Societies**

- 1. Fellow, *Institution of Electronics and Telecommunication Engineers* (IETE), Fellowship No. F503942, India, since 2023.
- 2. Life Member, *Indian Society for Technical Education* (ISTE), Life Membership No. 137657, India, since 2023.
- 3. Member, *Institute of Electrical and Electronics Engineering* (IEEE), Membership No: 90336508, USA, since 2010.
- 4. Member, *International Association of Engineers* (IAENG), Membership No: 63749), JAPAN, since 2010.
- 5. Member, Indian Science Congress Association, INDIA, in 2007.
- 6. Member, Association for Computing Machinery (ACM), Membership No: 1826449, USA, since 2006.

# Refresher Courses / Conferences / Workshops / Seminars Attended

#### **International National**

- 1. International Conference on Computing Informatics & Networks (ICCIN-2020), organized by the Department of Computer Science & Engineering, Bhagwan Parshuram Institute of Technology, New Delhi, India on 29 & 30 July, 2020.
- 2. International Conference on Emerging Current Trends in Computing and Expert Technology (COMET 2020), organized by the Department of Computer Science & Engineering, Panimalar Engineering College, Chennai, Tamil Nadu, India on 6 & 7 March, 2020.
- 3. International Annual Research Meet-ARM 2017 on Collaborate and Develop a New Culture to Drive Research, Innovation, Economic Activity and Award Ceremony-VIRA 2017, Organized by the Centre for Advanced Research and Design-CARD of Venus International Foundation on November 11, 2017.
- 4. International Conference on Intelligent Sustainable Systems (ICISS'17), SCAD Institute of Technology, Tamil Nadu, India, December 07- 08, 2017.
- 5. International Conference on Graphics and Signal Processing (ICGSP2017), Nanyang Technological University, Singapore, from 24.06.2017 to 27.06.2017.

- 6. International Symposium on Electronics and Smart Devices (ISESD 2016) Organized by the IEEE Section, Bandung, Indonesia on November 29-30, 2016.
- 7. International Conference on Data Mining Organized by AIRCC, Bangalore, India, September 13-14, 2014.
- 8. International Conference on Advanced Computing and Communication Systems Organized by Sri Eswari College of Engineering, *Coimbatore*, *India*, December 19 21, 2013.
- 9. International Conference on Emerging Trends in Engineering and Technology, Organized by the IIE, *Phuket, Thailand*, December07 &08, 2013.
- 10. International Conference on Recent Trends on Computer Applications Organized by the Department of Computer Science, *Hindustan College of Arts and Science, Chennai, India*, September 27 & 28, 2013.
- 11. International Conference on Emerging Technological Trends in Advanced Engineering Research, *Kollam, Kerala, India*, February 20 & 21, 2012.
- 12. International Conference on Computer Applications, *Pondicherry, India*, 27-31, January 2012.
- 13. International Conference on Signal and Image Processing Applications, Organized by IEEE Signal Processing Society, Malaysia Chapter, *Kula Lumpur, Malaysia*, November 17 & 18, 2009.
- 14. The Indian Science Congress, organized by the Indian Science Congress Association, Annamalai University, *Annamalainagar, India*, January 3 7, 2007.

#### **National**

- 1. TEQIP-III Sponsored First International Conference on Innovations and Challenges in Computing, Analytics, and Security, organized by the Department of Computer Science & Engineering, Pondicherry Engineering College, Puducherry, India on 29 & 30 July, 2020.
- 2. Extension Event, Dissemination and Social Diffusion (DSD) of Innovation for Business Development Competition Cum Exhibition, organized by the Department of Business Administration, Annamalai University, Tamilnadu, India, December 28 & 29, 2016.
- 3. Staff Training Programme on Competency Building and Complacency Enhancing organized by Staff Training and Research in Distance Education Cell in association with Staff Training and Development Centre, *Annamalai University, Annamalai Nagar, Tamil Nadu*, March 10, 2015.

- 4. National Seminar on Development and Revision of Self Learning Materials, Conducted by the Directorate of Distance Education, *Annamalai University, Annamalainagar, India*, 20th & 21st, May 2011.
- 5. UGC Sponsored National Conference on Recent trends in Digital Image Processing and its Applications, organized by the Department of Computer Science, Yadava College, *Madurai*, *India*, October 28 & 29, 2004.
- 6. Workshop on Business Intelligence, Department of Computer Science and Engineering, Directorate of Distance Education, Annamalai University, Annamalainagar, India, 7th, April 2004.
- 7. UGC Sponsored Refresher Course on Inter Disciplinary Course Applications of Statistics in Computer Science and Social Science Research, conducted by the Department of Statistics, Annamalai University, *Annamalainagar*, *India*, during November 3-23, 2003.
- 8. UGC-Sponsored National Symposium on Statistical Methods and Applications, organized by the Department of Statistics, Annamalai University, *Annamalainagar*, *India*, March 15 & 16, 2002.
- 9. National Conference on Recent Trends in Advanced Computing, organized by the Department of Computer Science & Eng., National Engineering College and M.S. University, *Kovilpatti, India*, 9<sup>th</sup> 10<sup>th</sup> February, 2001.

#### **Reviewer in Journals**

- 1. IET Image Processing (ISSN: 1751-9659)
- 2. Pattern Recognition (ISSN: ISSN: 0031-3203, Elsevier Received meritorious certificate two times)
- 3. Engineering Applications of Artificial Intelligence, (ISSN: 0952-1976, Elsevier).
- 4. Swarm and Evolutionary Computation (ISSN: 2210-6502, Elsevier)
- 5. Knowledge-Based SYSTEMS (ISSN: 0950-7051, Elsevier)
- 6. Journal of Computer and Electronics in Agriculture (ISSN: 0168-1699, Elsevier)

#### **Member - Editorial Board**

- International Journal of Information Technology and Management Sciences, Intellect Research Publications, Chennai, Tamil Nadu, INDIA.
- Editorial Board Scientific Board of Computer, Electrical & Electronic Engineers, International Conference on Emerging Trends in

Engineering and Technology Organized by International Institute of Engineers from December 7 & 8, 2013, Thailand.

#### **Associate Editor in Journal**

• Serving as an Associate Editor of the Journal Aloy Journal of Soft Computing and Applications (AJSCA) is an international journal launched by the Aloy Publishers, New Mexico, USA.

# Served as Member - Organizing/Advisory/Technical Committee - International Conferences:

- 1. Program Committee, International Conference on Advances in Signal Processing and Artificial Intelligence (ASPAI' 2024), April 17 & 19, 2024, Funchal (Madeira Island), Portugal.
- 2. Advisory Committee, International Conference on Systems, Computation, Automation and Networking, organized by the Manakula Vinayagar Institute of Technology, November 17 & 18, 2023 Puducherry, India.
- 3. *Advisory Committee*, National Conference on Systems, Computation, Automation and Networking, organized by the Manakula Vinayagar Institute of Technology, March 10, 2017 Puducherry, India.
- 4. *Technical Committee*, International Workshop on Pattern Recognition, Organized by the SPIE, from May 11 13, 2016, Tokyo, Japan.
- 5. *Technical Committee*, Science One International Conference on Environmental Sciences ICES-2014, organized by the Science Alert Conferences, January 21 23, 2014, *Deira Dubai*, *United Arab Emeritus*, http://thescienceone.com/ices/index.html.
- 6. Advisory Committee, UGC Sponsored National Conference on Advances in Computer Science and Information Technology organized by the Department of Computer Science, September 27 & 28, 2013 at the Yashwantrao Mohite College, Bharati Vidyapeeth Deemed University, Pune, India.
- 7. Technical Committee, International Conference on Computational Intelligence &Information Technology- ICCIIT-2012, Organized by the Department of Computer Science & Engineering, March 2 & 3, 2012, Coimbatore, Tamil Nadu, India.
- 8. Technical Committee, International Conference on Emerging Technology Trends in Advanced Engineering Research, Organized by the Department of Computer Science & Engineering, Baselios Mathews II College of Engineering, February 20 & 21, 2012 at Quilon Beach Five Star Hotel, Kollam, Kerala, India.

## Speech Broadcasted in All India Radio

- 1. A Speech delivered on **Digital Image Processing** was broadcasted by *All India Radio*, Pondicherry on May 26, 2007 at 5:30 p.m.
- 2. A Speech delivered on **Digital Image Compression** was broadcasted by *All India Radio*, Pondicherry on May 14, 2006 at 5:30 p.m.

#### Invited talks delivered to Public

- 1. A talk delivered on the topic of Further Studies and Job Opportunities in Computer Science and IT fields after completing School studies Current Trends in the VETRI NICHAYAM programme organized by the DAILY THANTHI, a popular Tamil News Paper on 03.05.2013 at Kallakurichi.
- 2. A talk delivered on the topic Further Studies and Job Opportunities in Computer Science and IT fields after completing School studies Current Trends in the VETRI NICHAYAM programme organized by the DAILY THANTHI, a popular Tamil News Paper on 11.05.2012 at Kallakurichi.
- 3. A talk delivered on the topic Further Studies and Job Opportunities in Computer Science and IT fields after completing School studies Current Trends in the VETTRI NICHAYAM programme organized by the DAILY THANTHI, a popular Tamil News Paper on 28.05.2011 at Villupuram.

## Keynote Address / Session Chair / Invited Talks / Special Lecture

#### **International**

- 1. Session Chair: Speech, Image, Audio/Acoustics, and Video Processing, International Symposium on Electronics and Smart Devices (ISESD 2016) Organized by the IEEE Section, Bandung, Indonesia on November 29-30, 2016.
- 2. Session Chair, International Conference on Data Mining, AIRCC Organization, Bengaluru, September 13-14, 2014.
- 3. Session Chair, International Conference on Emerging Technological Trends in Advanced Engineering Research, Kollam, Kerala, India, February 20 & 21, 2012.

#### **National**

1. Special Lecture on Role of ICT in Social Science Research in the ICSSR funded ten days Research Methodology Course for M.Phil./Ph.D./PDF Research Scholars in Social Sciences conducted by the Department of Population Studies at Annamalai University, Tamil Nadu, India, from 15.02.2021 to 25.02.2021.

- 2. Special Lecture on Current Trends of IT Field ND Development of Cutting-Edge Technologies in the Domain organized by the Department of Computer Applications, Arignar Anna Government Arts College, Villupuram on 09.01.2020.
- 3. Special Lecture on Sampling Techniques and Sample Size Determination in Research in the event of University Sponsored Prof. K. S. Sonachalam Memorial XXV Workshop organized by the Department of Economics, Annamalai University for 7 days from 13.12.2019 to 19.12.2019, Annamalai Nagar, Tamil Nadu, India.
- 4. *Chaired a Session* of the students-level Intra College Seminar on Callida 2019 at the State level organized by the Department of Information Technology, Misrimal Navajee Jain Engineering College, Chennai on 05.01.2019.
- 5. Special Lecture on Preparation of Funded Project Proposal Writing and Research Methodology and Scientific Writing, Faculty Development Programme conducted by the Hindustan College of Arts and Science, Coimbatore on 08.09.2018.
- 6. Keynote Address on Various Professional Academic Societies and Benefits of the Membership, on the Occasion of Inaugural Function of the Students Forum, HEXA, Organized by the Department of Computer Science and Applications, Jawahar College of Science, Neyveli, on 15.03.2018.
- 7. Special lecture on Applications of Statistics in Data Analytics and Privacy Preservation at the AICTE sponsored Short Term Training Program entitled Privacy-preserving Data Analytics conducted by the Department of Computer Science & Engineering of Coimbatore Institute of Technology, Coimbatore, Tamil Nadu, INDIA from 02.01.2018 to 08.01.2018.
- 8. Session Chaired: Students-level Intra College Seminar on Callida 2016 Ver. 2.0 at State level organized by the Department of Information Technology, Misrimal Navajee Jain Engineering College, Chennai on 01.10.2016.
- 9. Special Lecture, on Turtle Graphics and Ray Tracing, Faculty Development Training Programme CS 6504 COMPUTER GRAPHICS at University College of Engineering, Villupuram Campus, Villupuram on June 16, 2016.
- 10. Session Chaired: Students-level Intra College Seminar on Callida 2016 at State level, organized by the Department of Information Technology, Misrimal Navajee Jain Engineering College, Chennai on 27.02.2016.
- 11. Invited Talks on Spectral Domain Analysis on Image Fusion, ISTE Sponsored Training Programme on Advances on Spectral Domain

- Analysis organized by the Department of Electrical Engineering, Annamalai University, Tamil Nadu, India, January 04 08, 2016.
- 12. Keynote Address on Big-Data Analytics with Cloud Environment, National Workshop on Cloud Computing Big Data Analysis, organized by the Department of Computer Science, Periyar Government Arts College, Cuddalore, India, August 27, 2015.
- 13. Chaired a Session of the National Conference on Recent Trends in Distributed Computing, organized by the Department of Information Technology, Misrimal Navajee Jain Engineering College, Chennai on 28.03.2015.
- 14. *Keynote Address*: Research Methodology and Procedure for Submitting Project Proposal to Various Funding Agencies, Workshop on R & D Project Proposal, Organized by the Research and Development Cell of the MIT, Puducherry, on 03-12-2014.
- 15. Lecture on Pervasive Computing, Faculty Development Training Programme on "CS2402 Mobile and Pervasive Computing" Sponsored by the Centre for Faculty Development, Anna University, Chennai, Organized by the Department of Computer Science & Engineering, A Constituent College of Anna University, Panruti on 15.06.2014.
- 16. Keynote Address and Session Chair, National Level Symposium on Wireless and Network Security, Rajiv Gandhi College of Engineering, Pondicherry, India, September 3, 2014.
- 17. Invited Talks on Research Methodology on Computer Vision, UGC Sponsored National Conference on Advances in Computer Science and Information Technology organized by the Department of Computer Science, Yashwantrao Mohite College, Bharati Vidyapeeth Deemed University, Pune, India on September 27 & 28, 2013.
- 18. Special Lecture on Research Methods on Image Restoration, TEQIP Sponsored Faculty Development Programme, Department of Information Technology, Anna University-Tiruchirapalli Campus, Tamilnadu, July, 25-31, 2013.
- 19. *Invited Talk* on Applications of Statistical Methods in Image Processing, Workshop for Beginners in Research on Statistical Software Packages, Dept. of Statistics, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu, March, 13-15, 2013.
- 20. *Invited Talk* on Applications of Image Processing, Workshop on Statistics and Computer Applications, Department of Statistics, Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, March, 11&12, 2013.
- 21. Keynote Address on Web Services and Its Applications, and Session Chair, UGC Sponsored National Conference on Web Science and

- Technology, Department of Computer Science, PSG College of Arts and Science, Coimbatore, Tamilnadu, October 10, 2012.
- 22. *Keynote Address* on Color Image Retrieval, National Conference on Advances in Computer Technology, Department of Computer Science & Engineering, University College of Engineering, Panruti, Tamilnadu. September 27, 2012.
- 23. *Invited Talks* on Digital Image Processing to the Teachers, Researchers, and P.G. Students, Department of Computer Applications, Mailam Engineering College, Mailam, Tamil Nadu, February 18, 2011.
- 24. *Lecture* on Statistical Pattern Recognition to the Teachers, Researchers, and P.G. Students, Department Association Activities, Department of Computer Science, AVC College of Arts & Science, Mayiladudurai, Tamilnadu, June 21, 2011.
- 25. Special Lecture on Research Methodology on Pattern Recognition to the Teachers, Researchers and P.G. Students, Departments of Computer Science & Engineering, IT and Computer Applications, Mailam Engineering College, Mailam, Tamilnadu, May 16, 2011.
- 26. *Invited Talk* on Research Methodology in Computer Science, AICTE Sponsored Staff Development Programme on "Mobile Ad-hoc Networking and Computing", Department of Computer Science & Engineering, M. Kumarasamy College of Engineering, Karur, Tamil Nadu, May 26, 2010.
- 27. Special Lecture on Applications of Statistical Package for Social Sciences, A National Level Seminar on Tools for Business Data Analysis SPSS Applications in Social Science Research, School of Management, SASTRA University, Thanjavur, India, March 29, 2008.
- 28. Lecture on Orifice to Digital Image Processing to the Teachers, Researchers and P.G. Students, On the Event of Department Association Activities, Department of Information Technology, VRS College of Engineering & Technology, Arasur, Tamilnadu, July 22, 2008.
- 29. Session Chair, A National Level Conference on Artificial Intelligence and Neural Networks, Department of Computer Applications, SRM University, Kattankulathur, February 21-22, 2008.
- 30. Special Lecture on Digital Image Processing, A National Level Refresher Course in Computer Science, UGC Academic Staff College, Bharathiar University, Coimbatore, Tamilnadu, December 04, 2007.

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#### **Personal Details:**

Born on 09 May 1964, Hindu, Indian, Married.

Wife: Vijayalakshmi, born on 10-05-1972

Sons: Dr. Vigneswaran, born on 28-01-1997

Dr. Dharaneeshwaran, born on 09-09-1998

#### **Permanent Address:**

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## **Institutional Website:**

http://annamalaiuniversity.ac.in/faculty\_view.php?id=02479&dc=S10

Personal Website: www.kseetharaman.in