

Faculty Profile

Dr. D Sujitha Juliet, M.E., Ph.D

Associate Professor,

Department of Computer Science and Engineering

sujitha@karunya.edu



Academic Background

Degree	University	Year
Ph.D	Karunya Inst of Technology and Sciences, (Deemed to be University)	Sep 2014
M.E	Karunya Inst of Technology and Sciences, Affiliated to Anna University	Dec 2002
B.E	Karunya Institute of Technology, Bharathiar University	April 2001

Courses Taught

- Machine Learning Techniques
- Artificial Intelligence for Mechanical Systems
- Intelligent systems
- Interactive Game Design
- Artificial Intelligence for Games
- Machine Learning Principles and Applications

Research Interests

- Deep learning based image recognition
- Medical Image Analysis
- Applied Natural Language Processing
- Emotion recognition for Human Computer Interaction
- Indoor Navigation system

Significant achievements:

Funded Projects received from DST to the tune of 46.4 lakhs (ongoing)

- **Principal Investigator** in the project titled, “Development of Industrial Indoor Asset Positioning and Navigation System using Geospatial Analysis and Ultra-Wide Band Technology” funded by DST- NRDMS to the tune of Rs. **27,89,644/-** (ongoing)
- **Co-investigator** in the project titled “Development of Cost Effective Affordable Cervical Cancer Screening Unit based on Smartphone Technology for Rural Population” funded by DST- BDTD to the tune of **Rs. 18,53,153-** (ongoing)

Patent Published:

Title of Invention: **A DEVICE FOR TRAPPING LOCUST**

Field of Invention: Design of a product that addresses the issue of food security due to invasion of locusts

Publication Date : 11/06/2021 (Ref No: 202141020431 A)

PhD Guidance:

Two PhD scholars awarded Doctoral degrees in the areas of Deep learning based image analysis.

Most recent Publications

- Joseph, S.I.T., Sasikala, J., **Sujitha Juliet, D.**, Velliangiri, S. (2021) Hybrid spatio-frequency domain global thresholding filter (HSFGTF) model for SAR image enhancement, Pattern Recognition Letters, 146, pp. 8–14, **IF 3.756**
- Kurian, S. M., **Sujitha Juliet.D** and Vijayan, V. P. (2021) Brain tumour detection by gamma denoised wavelet segmented entropy classifier, Computers, Materials and Continua, 69(2), 2093-2109, **IF: 3.772**
- Joseph, S.I.T., Sasikala, J., **Sujitha Juliet, D.**, (2020) “ Detection of Ship from Satellite Images Using Deep Convolutional Neural Networks with Improved Median Filter”, Remote Sensing and Digital Image Processing, 24, pp. 69-82
- Joseph S. I., Sasikala J, and **Sujitha Juliet D.**, (2019) “Optimized vessel detection in marine environment using hybrid adaptive cuckoo search algorithm”, Computers and Electrical Engineering, 78, 482-492, **IF: 3.818**
- Joseph S. I., Sasikala J, and **Sujitha Juliet D.**, (2019) “A novel vessel detection and classification algorithm using a deep learning neural network model with morphological processing”, Soft Computing, 23(8), 2693-2700, **IF: 3.643**
- Sai B. R , **Sujitha Juliet, D** (2019), “Transfer learning with RESNET-50 for malaria cell-image classification”, Proc. 8th IEEE Int. Conf. Communication and Signal Processing, ICCSP 2019, India, 945-949

- Karna, M., **Sujitha Juliet, D.**, Joy, R.C., “Deep learning based Text Emotion Recognition for Chatbot applications”, Proceedings of the 4th International Conference on Trends in Electronics and Informatics, ICOEI 2020, 2020, pp. 988-993, 9142879
- **Sujitha Juliet D.**, “Emerging paradigms in Transform based medical image compression for Telemedicine Environment” (2019), book chapter in titled with the book ‘Telemedicine Technologies: Big Data, Deep Learning, Robotics, Mobile and Remote Applications for Global Healthcare’, Chapter 2, 15 -29, Academic Press, Elsevier, 2019, ISBN: 9780128169483
- E. Grace Mary Kanaga, J. Anitha, **Sujitha Juliet D.**, “4D medical image analysis: a systematic study on applications, challenges, and future research directions” Book chapter in book titled “Advanced Machine Vision Paradigms for Medical Image Analysis”,2021, Pages 97-130.

Projects Guided

- Transfer Learning for Malaria Cell-image Classification
- A Group-Centric Intelligent Recommendation System for twitter
- Deep Learning based Facial Expression Recognition for Psychological Health Analysis
- Deep Learning based Text Emotion Recognition for Chatbot applications
- Deep learning based automatic text generation

Memberships in Professional societies

- IEEE Member from Jan 2009 to Dec 2009 (90518013)
 - IACSIT Life time member (80341077)
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