

Name : **Dr. JENNYFER SUSAN M B**
 Designation : Assistant Professor
 Department : Computer Science (PG)
 Qualification : M.Sc., Ph.D.
 Experience : Teaching: 2 Years, Research: 7 Years
 Area of Specialization : Image Processing, Computer Vision, Agentic AI
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Academic Qualifications

Degree	Branch	Institution/University Name	Year of Graduation
Ph.D.	Computer Science	Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore	2024
M.Sc.	Computer Science	Kovai Kalaimagal College of Arts and Science, Coimbatore	2018 (86.3%, First Class with Distinction)
B.Sc.	Computer Science	Kovai Kalaimagal College of Arts and Science, Coimbatore	2016 (78.7%, First Class with Distinction)

Research Experience

- Completed Ph.D. in Computer Science in the area of **Medical Image Analysis using Deep Learning** from Avinashilingam Institute for Home Science and Higher Education for Women in **August 2024** under the guidance of Dr. P. Subashini. Thesis: “Specular Reflection Removal in Smart Colposcopy Images Using Deep Learning Model for Enhanced Grading of Cervical Cancer”
- Published **1 patent, 2 book, 5 journal papers** (SCI, Scopus and UGC CARE indexed), **7 conference papers, 2 book chapters** and **2 poster publications**
- Research IDs – Scopus ID: 57216788518; Web of Science ID: IST-1886-2023; ORCID: 0000-0003-1509-9309

Patent Granted

- Subashini P., Dhivyaprabha T.T., Jennyfer Susan M.B., “**Cervical Cancer Self-Test Kit**”, Application No. 202241021066, May 2022

Authored Books

- Subashini P., Lalitha P., Janani R., **Jennyfer Susan M.B.**, Mohana M. (2024), "Python for Chemistry," Notion Press, ISBN: 979889446721-4.
- Subashini P., Dhivyaprabha T.T., **Jennyfer Susan M.B.**, Machine Learning Using Google Colab – for Chemistry and Biochemistry Applications, Notion Press, ISBN: 9798889239963, 2023

List of Publications in International Journals

- **M.B. Jennyfer Susan**, P. Subashini. (2023), "Deep Learning Inpainting Model on Digital and Medical Images – A Review," *International Arab Journal of Information Technology* Vol. 20, No. 6, pp. 919-936, DOI: 10.34028/iajit/20/6/9. (*Indexed in Scopus & SCI*)
- **M.B. Jennyfer Susan**, P. Subashini, TT Dhivyapraha (2025), "Advancing Cervical Cancer Care: A Comprehensive Study of Screening Approach for Tribal Women in Sub-Saharan Africa and Asia." *Iranian Journal of Public Health*, Vol. 54, No.10, pp. 2151-2160, DOI: 10.18502/ijph.v54i10.20134 (*Indexed in Scopus & SCI*)
- **M.B. Jennyfer Susan**, P. Subashini. (2023), "Improvising Grading of Cervical Cancer using Quality Assessments method in Smart Colposcopy Images," *Measurement Sensors*, Vol. 27 No. 3, pp. 1-11, DOI: 10.1016/j.measen.2023.100788. (*Indexed in Scopus*)
- **Jennyfer Susan M.B.**, Subashini P., Krishnaveni M., Indhumathi T. (2023), "Detection of Specular Reflection from Smart Colposcopy Image using RGB Color Space and Convolutional Neural Network," *International Journal of Engineering Trends and Technology*, vol. 71 no. 10, pp. 29-38, DOI: 10.14445/22315381/IJETT-V71I10P204. (*Indexed in Scopus*)
- **M.B. Jennyfer Susan**, P. Subashini, M. Krishnaveni. (2022), "Comparison of various deep learning inpainting methods in smart colposcopy images," *International Journal of Computational Intelligence Studies*, Vol. 11 No. 1, pp. 53-72, DOI: 10.1504/IJCISTUDIES.2022.123347. (*Indexed in UGC*)

List of Publications in Conference Proceedings

- **Jennyfer Susan, M. B.** and S. Nishanthini. "Comparative Analysis of Machine Learning Models for Satellite Image Classification with Explainable AI Visualization." In *2025 3rd International Conference on Intelligent Systems, Advanced Computing and Communication (ISACC)*, pp. 748-753. IEEE, 2025 (*IEEE - Scopus*).
- Sesan, D., Dhanalakshmi, **Jennyfer Susan, M. B.**, Krishnaveni, M., Narmatha, V., Subashini, P., & Prabavathi, G. T. (2025, January). IoT Enabled Indian Postal Sign Recognition System: Facilitating Communication Among Individuals with Hearing and Speech Impairments. In *International Conference on Advanced Intelligent Systems and Informatics* (pp. 395-405). Cham: Springer Nature Switzerland (*Indexed in Scopus*).
- T. T. Dhivyaprabha, M. B. Jennyfer Susan, P. Lalitha, P. Subashini, D. Kamilini, R. Vijayabhanu; An intelligence model to forecast blood brain barrier permeability using graph neural network. *AIP Conf. Proc.* 18 June 2024; 3122 (1): 080005. <https://doi.org/10.1063/5.0217237>. (*Indexed in Scopus and WoS- AIP Proceedings*).
- T. T. Dhivyaprabha, M. B. Jennyfer Susan, P. Lalitha, P. Subashini, D. Kamilini, R. Vijayabhanu; Predicting ethylene production in oxidative coupling of methane: A machine learning approach. *AIP Conf. Proc.* 18 June 2024; 3122 (1): 080008. <https://doi.org/10.1063/5.0216039>. (*Indexed in Scopus and WoS - AIP Proceedings*).
- **M.B. Jennyfer Susan**, P. Subashini. (2023), "Detection of Specular Reflection on Smart Colposcopy Image Using Fine-Tuned U-Net Model," *Engineering Science and Sustainability Advancements in Technology and Techniques*, Proceeding of International Sustainability

Conference, Edited By Dimitrios A. Karras, Sai Kiran Oruganti, Sudeshna Ray, pp. 163-168, ISBN: 9781032484235 (*CRC publishers, Indexed in Scopus*).

- **M.B. Jennyfer Susan**, P. Subashini. (2021), "Specular Reflection Detection on Digital Images – A Review," Artificial Intelligence and Soft Computing (ICAISC), Karnataka, pp. 506-516, ISBN: 978-93-88929-53-0.
- **M.B. Jennyfer Susan**, P. Subashini. (2019), "Design and Development of Webportal for Cervical cancer Diagnosis using MobileODT Images," 2019 IEEE International Smart Cities Conference (ISC2), Casablanca, Morocco, pp. 118-121, DOI: 10.1109/ISC246665.2019.9071683. (*IEEE - Indexed in SCI Scopus*).

Book Chapters

- Subashini P., Dhivyaprabha T.T., Krishnaveni M., **Jennyfer Susan M.B.** (2023), "Smart Intelligent System for Cervix Cancer Image Classification Using Google Cloud Platform," In: Ahad M.A., Casalino G., Bhushan B. (eds), Enabling Technologies for Effective Planning and Management in Sustainable Smart Cities, Springer Cham, pp. 245-281, DOI: 10.1007/978-3-031-22922-0_10.
- **Jennyfer Susan M.B.**, Subashini P., Krishnaveni M. (2023), "Artificial Intelligence of Things for Smart Health Care Development – An Experimental Review," In: P. Swarnalatha & S. Prabu (Eds.), Handbook of Research on Deep Learning Techniques for Cloud-Based Industrial IoT, pp. 29-60, IGI Global, DOI: 10.4018/978-1-6684-8098-4.ch003.

International Visit:

- Presented research paper titled “*Design and Development of Webportal for Cervical Cancer Diagnosis using MobileODT Images*” at the IEEE International Smart Cities Conference (ISC2 2019) held in Casablanca, Morocco, September 2019.

Reviewer in Journals

- Reviewer, Recent Patents on Engineering (Scopus-indexed journal), May 2024

Awards and Recognitions

- **Best Researcher Award** – International Research Awards on Network Protocols, July 2023
- **Best Presenter Award** for “Image Classification using Federated Learning” – Centre for Machine Learning and Intelligence and AAI Start-up Programme, March 2024