Dr. Suba Suseela

Assistant Professor

Education Qualifications: Doctor of Philosophy (CSE)
Specialization: Machine Learning

ADDRESS:
- D – Block - 310

JNTUH ID:
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EMAIL:
ssuba_it@mgit.ac.in

DATE OF JOINING:
29-01-2025

EXPERIENCE - 16 Years
- Teaching - 9
- Research -7

SUMMARY:
- Publications - 8
- Conferences - 9
- Book Chapters – 2
- Honors/Awards - 2

EVENTS:
- Attended - 10

LET'S MEET ON SOCIAL:
- https://www.linkedin.com/Suba Suseela

Membership of Professional Bodies:

1. Life Member of CSI (Computer Society of India).

Honors/Awards Received:

1. DST Women Scientist – A (SR/WOS-A/ET-86/2019)
2. Awarded 1st prize for oral presentation in the 3rd International Conference on Bioinformatics and Data Science, held in Bengaluru, December 22-23, 2022.

Courses Handled at Undergraduate /Post Graduate Level:

- **UG:** Data Science, Database Management Systems, Problem Solving using C, Object Oriented Programming using C++, Logic and Switching Theory, Artificial Intelligence, Data Mining, Mathematics and Statistics

Publications:

1. DNA Methylation Based Subtype Specific Markers for Breast Cancer, Sri Lakshmi Bhavani Pagolu, Suba S and Nita Parekh (manuscript in preparation).
2. Multi-Omics Based Subtype Classification of Breast Cancer, Sri Lakshmi Bhavani Pagolu, Debashis Barik, Suba S and Nita Parekh (manuscript in preparation).
3. From Pixels to Prognosis: Attention-CNN Model for COVID-19 Diagnosis Using Chest CT Images, Suba S and Nita Parekh, IET Image processing (http://dx.doi.org/10.1049/ipr2.13249). (Scopus)
4. Mammo-Bench: Mammogram Dataset for Breast Cancer Research, Gaurav Bhole, Suba S and Nita Parekh, (In Press: Lecture Notes in Bioinformatics) (Scopus)
5. DNA Methylation Based Subtype Classification of Breast Cancer, Sri Laxmi Bhavani Pagolu, Suba S, and Nita Parekh, in the proceedings of The 12th International Conference on Computational Advances in Bio and Medical Sciences (ICCABS), Bansal, M. S., Chen, W., Khudyakov. Y., Măndoiu, I. I., Moussa, M. R., Patterson, M., Rajasekaran, S., Skums, P., Thankachan, S.V., Zelikovsky, A. (eds), Lecture Notes in Bioinformatics (In Press).(Scopus)
6. Lightweight and Generalizable Model for COVID-19 Detection Using Chest Xray Images, Suba S, and Nita Parekh, in the proceedings of The 12th International Conference on Computational Advances in Bio and Medical Sciences (ICCABS), Bansal, M. S., Chen, W., Khudyakov. Y., Măndoiu, I. I., Moussa, M. R., Patterson, M., Rajasekaran, S., Skums, P., Thankachan, S.V., Zelikovsky, A. (eds), Lecture Notes in Bioinformatics, Springer Nature (In Press).(Scopus)
7. Attention-based Convolutional Neural Network Outperforms Deep Architectures in Classifying Chest CT Images for COVID-19 Diagnosis, Suba S and Nita Parekh, in the proceedings of 10th international conference Pattern Recognition and Machine Intelligence (PReMI 2023), Maji, P., Huang, T., Pal, N.R., Chaudhury, S., De, R.K. (eds), Lecture Notes in Computer Science, vol 14301, pg 418-427, Springer,

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Cham. (2023). DOI: https://doi.org/10.1007/978-3-031-45170-6_43 (Scopus)

8. Evaluating Generalizability of Deep Learning Models Using Indian-COVID-19 CT Dataset, Suba S, Nita Parekh, Ramesh Loganathan, Vikram Pudi, Chinnababu Sunkavalli, in the proceedings of The Joint 3rd International Conference on Bioinformatics and Data Science (ICBDS 2022), Eds. R. Somshekhar, P. Bagchi, T.S. Rajesh, R. Hill, and K. Rossi, as part of the series Advances in Health Sciences Research, 58, 15-28 Atlantis Press (part of Springer Nature) (2023). DOI: 10.2991/978-94-6463-164-7_3 (Scopus)

Conferences:

1. Mammo-Bench: A Large-scale Benchmark Dataset of Mammography Images, Gaurav Bhole, Suba Suseela and Nita Parekh in The 13th International Conference on Computational Advances in Bio and Medical Sciences (ICCABS), Georgia State University, Jan 12-14 (2025).
2. Stratifying Breast Cancer Subtypes Using DNA Methylation Markers, Sri Lakshmi Bhavani Pagolu, Suba S and Nita Parekh, in Indian Conference on Bioinformatics 2023 - Inbix'23, VIT Vellore, India, 24-26 Nov (2023).
3. DNA Methylation Based Subtype Classification of Breast Cancer, Sri Laxmi Bhavani Pagolu, Suba S, and Nita Parekh, oral presentation in The 12th International Conference on Computational Advances in Bio and Medical Sciences (ICCABS), University of Oklahoma, Norman, Oklahoma, Dec 11-13 (2023).
4. Lightweight and Generalizable Model for COVID-19 Detection Using Chest Xray Images, Suba S, and Nita Parekh, oral presentation in The 12th International Conference on Computational Advances in Bio and Medical Sciences (ICCABS), University of Oklahoma, Norman, Oklahoma, Dec 11-13 (2023).
5. Attention-based Convolutional Neural Network Outperforms Deep Architectures in Classifying Chest CT Images for COVID-19 Diagnosis, Suba S and Nita Parekh, oral presentation in The 10th International Conference on Pattern Recognition and Machine Intelligence (PReMI'23), Dec 12 -15, 2023, ISI Kolkata, India.
6. Evaluating Generalizability of Deep Learning Models Using Indian-COVID-19 CT Dataset, Suba S, Nita Parekh, Ramesh Loganathan, Vikram Pudi, Chinnababu Sunkavalli, oral presentation in 3rd International Conference on Bioinformatics and Data Science (ICBDS-2022), Bengarulu Dec 22-23, (2022). Awarded 1st prize.
7. Identifying DNA Methylation Biomarkers for Triple Negative Breast Cancer Using Biologically Optimized Machine Learning Model, Suba S and Nita Parekh, poster presentation at International Conference on Frontiers in Nutrition, Medical Genomics, and Drug Discovery, Inbix'22, at Vignan University, Guntur, 31st Oct – 2nd Nov, (2022).
8. Chest X-ray Classification for Detecting COVID-19 Using Convolutional Neural Network, Suba S and Nita Parekh, poster presentation in 29th Conference on Intelligent Systems for Molecular Biology (ISMB) and 20th European Conference on Computational Biology (EECB), Virtual event, July 25-30 (2021).
9. DeCoV-CNN: A Simple CNN Model for Detection of COVID-19 Using Chest X-rays, Suba S and Nita Parekh, oral presentation in The 1st International Conference on Computing & Machine Intelligence, at Istanbul Sabahattin Zaim University, Istanbul, Turkey, Feb 19-21, (2021). https://icmi.aiplustech.org/icmi21_home.html
10. Interpretable Deep Learning Model for Breast Cancer Classification, Suba S and Nita Parekh, poster presentation in Machine Learning for

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Science, Symposium and Discussion Meeting, IIIT-Hyderabad, Nov 29-30, (2019).

Research & Consultancy:

1. Women Scientist – A (WOS-A), Department of Science and Technology, (SR/WOS-A/ET-86/2019) for the project titled, "Deep Learning approach using multimodal data for Cancer subtype prediction", Mar 2022 – Feb 2025, Rs.28,17,660/-
2. IHub-Data, IIIT Hyderabad, for the project titled, "Database Construction & Analysis of Chest Xray & CT Scan Images of COVID-19"Aug 2021 – Mar 2022, Rs. 31,000/-per month
3. RAKSHAK Data, DASAC, IIIT Hyderabad for COVID-19 image Data collection and analysis. 7th Aug 2020 – 6th Feb 2021 Rs. 12,000/- per month
4. Phd Scholar, Research Assistant, Project Fellow, IIIT-Hyd

No. of Books/Chapter Published with details:

1. Published One Chapter on "Machine Learning Approaches in Detection and Diagnosis of COVID-19", in Artificial Intelligence and Machine Learning in Healthcare, A. Saxena and S. Chandra (Eds.) Singapore: Springer, 2021, pp. 113–145. doi: 10.1007/978-981-16-0811-7_7. ISBN: 9789811608117
2. Published One Chapter on "Applications of Machine Learning Algorithms in Cancer Data", in Big Data and Artificial Intelligence for Healthcare Applications. Saxena, A., Brault, N., & Rashid, S. (Eds.). (2021). Taylor & Francis, CRC Press. ISBN: 9781003093770

Events Attended

FDPs/STTPs:

1. Faculty Development program – Accenture Hyderabad (1 Day)
2. Mission-10x program - Wipro, Hyderabad (5 Days)
3. Instructional Design and Delivery conducted by NITTTR (Ministry of Human Resource Development, India) – (5 Days)

Refresher Courses/ Workshops/ Webinars/ Seminars/Guest Lecture:

1. Certificate course on "Foundations of Predictive Analysis", IIT Hyderabad, (7 Days)
2. Machine Learning for Science, Symposium and Discussion Meeting, IIIT-Hyderabad, Nov 29-30, (2019)

Online Certifications:

1. Coursera Certification: Mathematics for Machine Learning: Linear Algebra
2. Coursera Certification: Python for Everybody

Any Other Contribution:

1. Cisco Certified Network Associate (2003 - 2006)
2. GATE Qualified (2010, 2012)