

CURRICULUM - VITAE



Swati V. Narwane

PhD (Computer Engg), M.E. (Computer Engg), B. E. (Computer Engg)

Objective:

To obtain a challenging position in the Artificial Intelligence and Data Science domain where I can apply my rich research skills and academic experience to improve the overall performance of the organization

Educational Qualification:

- **PhD**
University of Mumbai, Datta Meghe College of Engg., Navi Mumbai
Dissertation: "Uplifting the Performance of System by Manipulating Unbalanced Datasets For Machine Learning"
Guide: Dr. Sudhirkumar D. Sawarkar
 - **M.E.**
University of Mumbai, Datta Meghe College of Engg., Navi Mumbai
with First Class with distinction (**70.0%**) in 2013
 - **B.E.**
North Maharashtra University, K.C.E. Societies' College of Engg., Jalgaon with First Class (**68.5%**) in 2005
 - **Diploma**
State Board of Technical Education, Maharashtra Government Polytechnic Jalgaon with First Class (**65.37%**) in 2002.
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Research Areas

Machine Learning; Big Data Analytics; Class imbalance; Healthcare; Data Science; Project management; AI-based systems

Recognitions

- Approved guide for Master Program in Computer Engineering of University of Mumbai.
- Approved teacher for Undergraduate program in Information Technology of the University of Mumbai
- International Journal reviewer-
 - ❖ Journal of Advanced Research in Applied Sciences and Engineering Technology.
 - ❖ Journal of Supercomputing, An International Journal of High-Performance Computer Design, Analysis, and Use.
- National Journal reviewer- Industrial Engineering Journal (IIIE, India)

Research Impact

- Google Scholar - Citations :46, h-index: 4, i10 index:2

- Research gate - Research Interest Score: 10.0; Citations:5; h-index: 2;
- Guided ME projects entitled:
 - A Novel Approach to Handle Class Imbalance in Machine Learning
 - Designing a Model to Detect Diabetes using Machine Learning
 - Detection of URL based Phishing Attacks using Machine Learning
- Google scholar ID- <https://scholar.google.com/citations?hl=en&user=LULoRiIAAAAJ>
- Orchid ID : <https://orcid.org/0000-0002-4505-6556>

Publications:

International Journal:

1. **Narwane, S. V.**, Siddavatam, I. A., & Karve, M. S., (In Press). “Determinants of blockchain-machine learning adoption in additive manufacturing”, *Int. J. Industrial and Systems Engineering*, 1(1), 1. (InderScience Publication). <https://doi.org/10.1504/ijise.2023.10055740>
2. **Narwane, S. V.**, & Sawarkar, S. D. (2022). Is handling unbalanced datasets for machine learning uplifts system performance?: A case of diabetic prediction. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, 16(9), 102609. (Elsevier Publication) <https://doi.org/10.1016/j.dsx.2022.102609>
3. **Narwane, S. V.**, & Sawarkar, S. D. (2021). Effects of Class Imbalance Using Machine Learning Algorithms. *International Journal of Applied Evolutionary Computation*, 12(1), 1–17. (IGI Global Publication) <https://doi.org/10.4018/ijaec.2021010101>
4. Gardas, R., & **Narwane, S. V.** (2023) “An analysis of critical factors for adopting machine learning in manufacturing supply chains”, *Decision Analytics Journal* (Elsevier Publication) <https://doi.org/10.1016/j.dajour.2023.100377>

UGC approved Journal:

5. **Narwane, S. V.**, & Sawarkar, S. D. (2019). Machine Learning and Class Imbalance: A Literature Survey. *Industrial Engineering Journal*, 12(10). (IIIE Publication-UGC Approved)
6. **Narwane S. V.**, Sunnapwar, V. K., & Narwane, V. S. (2023) “Design of Cold Supply Chain for Perishable Food Products for improving the Dimensions of Sustainability”, *Industrial Engineering Journal*, Vol. XVI & Issue No. 12 December – 2023. (IIIE Publication-UGC Approved)

International Conference

7. **Narwane, S. V.**, & Sawarkar, S. D. (2021). Dimensionality Reduction of Unbalanced Datasets: Principal Component Analysis. In *2021 Asian Conference on Innovation in Technology (ASIANCON)* Pune, India. Aug 28-29, 2021. (<http://dx.doi.org/10.1109/ASIANCON51346.2021.9544971> -IEEE Publication-**Scopus**)
8. **Narwane, S. V.**, & Sawarkar, S. D. (2021). Comparative analysis of Machine Learning algorithms for Imbalance Dataset using Principle Component Analysis. In *International Conference on Machine Intelligence and Smart Systems (MISS-2K21)* Gwalior, India. Sept 24-25, 2021. (https://doi.org/10.1007/978-981-16-9650-3_8- Springer Nature Publication- **Scopus**)
9. **Narwane, S. V.**, Ochani, M. M., & Sawarkar, S. D., (2019). A Novel Approach to Handle Class Imbalance in Machine Learning. *International Journal of Engineering Research and Technology (IJERT)*, 8(11), 299-305(DOI : 10.17577/IJERTV8IS110174).
10. **Narwane, S. V.**, Patil, M. K., & Sawarkar, S. D (2019). Designing a model to detect diabetes using machine learning. *Int. J. Eng. Res. Technol*, 8(11), 333-340(DOI : 10.17577/IJERTV8IS110185).
11. **Narwane, S. V.**, Shikalgar, S., & Sawarkar, S. D., (2019). Detection of URL based phishing attacks using machine learning. *Int. J. Eng. Res. Tech.(IJERT)*, 8(11).
12. **Narwane, S. V.**, & Vaikole S.L. (2012) Intrusion Detection System in Cloud Computing, *International Conference on Advances in Communication and Computing Technologies (ICACACT) 2012*. Proceedings published by International Journal of Computer Applications® (IJCA), pages 9-17(DOI : 10.17577/IJERTV2IS4673).
13. **Narwane, S. V.** (202) Multi-level Intrusion Detection System in Cloud Computing *In Proceeding of the 2nd International Conference on Computer Application (ICCA-2012)*, pages 351-355.

14. Narwane, S. V., and Kadu R. D. (2012). Hierarchical Intrusion Detection System in Cloud Computing. *In Proceedings of International Conference and Workshop in Emerging Trends (ICWET2012)*, Mumbai (India), pages 19-23.

Key Contributions (Last 5 years)

Software project developed as an ERP solution-

➤ **Student detail Information**

To get the student's personal and academic information with one instance on the ERP system ERP team developed the "Student Detail Information (SDI)" module. In the SDI module, users can see students' detailed information using their registration number (Student Id) or by student name. SDI module contains the student's details, the semester-wise result of the student as well as the current status of the student.

➤ **Student Attendance System**

One of the most important tasks of the staff (subject in charge or class in charge) was to maintain student attendance semester-wise and subject-wise. Maintaining students' attendance and generating the reports was a time-consuming task. To address this issue "Student Attendance System (SAS) was developed using PHP and MySQL. Staff can enter and update lecture-wise student attendance. Summary of attendance report was generated lecture-wise, subject-wise, class-wise as well as student-wise. The SAS can maintain the integrity of staff and students as it will require credentials.

Major roles and responsibilities-

- Department internship in charge
- Department faculty development program (FDP) in charge and organized following FDPs
 - Secure Application Development (27th June - 1st July 2022)
 - Research Trends in Information Technology-2021(23 June to 25 June 2021)
- Student soft skill improvement program

Work Experience

1. **MCT's Rajiv Gandhi Institute of Technology**, Andheri, Varsova (1st Februari 2023 – till date)

Post held: Associate Professor

Principal duties:

- Institutional Committees:
 - Internal Quality Assurance Cell (IQAC)- Co-coordinator
 - NAAC – In charge (Criteria 3, 5 and 7)
- Departmental Committees:
 - Domain Convivor: Computer System & Organization
 - Internship In Charge
 - Department Academic Committee.
- Taught subjects like Artificial intelligence and Data science-I, Artificial intelligence and Data science-II, Operating System.

2. **Datta Meghe College of Engineering**, Airoli, Navi Mumbai (3rd Sept. 2013- 31st January 2023)

Post held: Asst. Professor

Principal duties:

- Taught subjects like Artificial intelligence and Data science-1, Big data analytics, Software project management, Software engineering, and Advanced data structure.
- NBA- In charge of Criteria 4(Student's performance)

3. **K. J. Somaiya College of Engineering, Vidyavihar**, Mumbai (7thJan. 2013- 31st May 2013)

Post held: Lecturer (Adhoc Basis)

Principal duties:

- Taught Subject- Analysis of Algorithm and Design, Data structure, etc.

4. Parshvanath College of Engineering, Thane (August 2005 – Dec.2012)

Post held: Asst. Professor (UGC Approved)

Principal duties:

- Taught subjects such as Data Structure and Files, Analysis of Algorithm and Design, Object Oriented Software Engineering, Computer Graphics, GUI-DBMS, and Data Structures (for Mechanical Engineering).

Special Achievement:

- In charge Head of Computer Department.
- Approved UG Teacher of Mumbai University. __

Computer Proficiency:

- Programming Languages- C,C++,VB-6.0, Core Java, PHP, Python
- Database Language- Mysql
- Simulation Software- Network Simulator 2
- Operating Systems –Linux, Windows, Ubuntu.

Personal Details:-

Husband's Name:	Dr Vaibhav S. Narwane
Date of Birth:	April 29, 1982.
Gender:	Female
Marital Status:	Married.
Nationality:	Indian.
Permanent Address:	103, Mahavir Residency, plot no. 60, sector 19, Airoli, Navi Mumbai, PIN – 400708
Contact Numbers:	91-9594521843, 91- 8169940417
Email Address:	svnarwane@gmail.com

I, Swati Narwane, do hereby confirm that the information stated above is true to the best of my knowledge.

Date: December 12, 2023

(Dr. Swati V. Narwane)

Place: Airoli