Name of Teaching Staff	**Dr. Vinaya Sawant**
Designation	**Associate Professor and Head**
Department	**Information Technology**
Date of Joining the Institution	**6th August 2003**
Email ID	vinaya.sawant@djsce.ac.in
Office Contact	022 42335019
Google Scholar Link	https://scholar.google.com/citations?user=VJhPq9YAAAAJ&hl=en
Researchgate Link:	https://www.researchgate.net/profile/Vinaya-Sawant
ORCID:	https://orcid.org/my-orcid?orcid=0000-0003-4661-9231
Publons Researcher ID	https://publons.com/researcher/2953661/vinaya-sawant
Scopus Link	https://www.scopus.com/authid/detail.uri?authorId=56763885200

Qualifications with Class / Grade	:	**PhD (Computer Engineering)** NARSEE MONJEE INSTITUTE OF MANAGEMENT STUDIES, Mumbai. JANUARY 2020
		M. Tech (Computer Engineering), CGPA:3.96/4.0 NARSEE MONJEE INSTITUTE OF MANAGEMENT STUDIES, Mumbai. JULY 2010
		B. Tech (Information Technology), CGPA: 7.24/10 USHA MITTAL'S INSTITUTE OF TECHNOLOGY, S.N.D.T. University, Mumbai. JUNE 2002
Total Experience in Years	:	**20 years**
		Dwarkadas J. Sanghvi College of Engineering in the Department of Information Technology, Vile Parle (W)— *Head of the Department* JANUARY 2020 – PRESENT
		Dwarkadas J. Sanghvi College of Engineering in the Department of Information Technology, Vile Parle (W), —Assistant Professor AUGUST 2003 - JANUARY 2020
Papers Published in Journal:	:	1. A System on Automated Database and API (Application Programming Interface) Management, International Journal for Research in Applied Science & Engineering Technology, Volume 10, Issue IV, April 2022 **[UGC and AICTE approved]**. 2. Apple Leaves Diseases Detection Using Deep Convolutional Neural Networks and Transfer Learning, Springer Nature, Algorithms for Intelligent Systems, Mohammad Shorif Uddin and Jagdish Chand Bansal (Eds): Computer Vision and Machine Learning in Agriculture, Volume 2,

978-981-16-9990-0, 524541_1_En, (Chapter 13), Jan 2022 [BOOK CHAPTER].

3. House Price Prediction Review, International Journal of Computer Applications 184(7):35-39, April 2022.

4. A Survey on IQ Test Platform for Visually Impaired, International Journal of Management, Technology and Engineering, Volume XI, Issue II, 2021 **[UGC Approved].**

5. A Review on Diabetic Retinopathy Detection, International Journal of Management, Technology and Engineering, Volume XI, Issue I, 2021 **[UGC Approved].**

6. A Review on DeepFake Detection, International Journal of Management, Technology and Engineering, Volume X, Issue XII, 2020 **[UGC Approved]**.

7. Abstractive Text Summarization Using Bidirectional LSTM with Attention Mechanism and WORD2VEC, IJRAR - International Journal of Research and Analytical Reviews, 2020 **[UGC Approved].**

8. A Map Reduce Based Parallel Algorithm, Journal of University of Shanghai for Science and Technology, **2020 [UGC Approved, Scopus and Web of Science].**

9. Performance evaluation of distributed association rule mining algorithms, Procedia Computer Science, 2016 **[Scopus Indexed and Web of Science].**

10. Pattern Mining of Road Traffic in Developing Countries using Spatio-Temporal Data, International Journal of Advanced Research in Computer and Communication Engineering, 2016 **[UGC Approved].**

11. Implementation of Handwritten Character Recognition using Template Matching, International Journal of Current Engineering and Technology, Vol.6, No.6 (Dec 2016), IF-5.126, Nov 2016.

12. Fault Tolerance and Concurrency Control in Heterogeneous Distributed Database Systems, International Journal of Advanced Research in Computer and Communication Engineering, Vol. 5, Issue 8, IF-5.332, August 2016 **[UGC Approved]**.

13. Distributed Association Rule Mining on Batchwise Data, International Journal of Advanced Research in Computer and Communication Engineering, Vol. 5, Issue 6, IF-5.332, June 2016 **[UGC Approved].**

14. Big Data vs traditional data, International Journal for Research in Applied Science & Engineering Technology (IJRASET), 2015 [UGC Approved].

15. Automated medical palmistry system based on image processing techniques, International Journal of Advanced Research in Computer Science and Software Engineering, 2015.

16. A Review on Multi-Agent Data Mining Systems, International Journal of Computer Science and Information Technologies, 2015.

17. Honking with Reduced Effect on Noise Pollution, International Journal of Advanced Research in Computer and Communication Engineering, Vol. 4, Issue 10, ISSN (Online) 2278-1021, ISSN (Print) 2319 5940, IF- 4.582, October 2015 **[UGC Approved].**

18. Automatic Question Generator, The International Journal of Science and Technoledge, 2015.

19. Teradata: Future of Databases, The International Journal of Science and Technoledge, 2014.

20. A survey of distributed association rule mining algorithms, Journal of Emerging Trends in Computing, and Information Sciences, 2014.

21. A review of Distributed Data Mining using agents, International Journal of Advanced Technology & Engineering Research (IJATER), 2013.

22. Automatic generation of test cases from UML models, Proceedings of International Conference on Technology Systems and Management (ICTSM) published by International Journal of Computer Applications (IJCA), 2011.

23. Construction of test cases from UML models, Technology Systems and Management, Springer, Berlin, Heidelberg, 2011 **[Scopus Indexed and Web of Science].**

Papers Presented in Conferences

1. Siamese Network-Based System for Criminal Identification. In: Goswami, S., Barara, I.S., Goje, A., Mohan, C., Bruckstein, A.M. (eds) Data Management, Analytics and Innovation. ICDMAI 2022. Lecture Notes on Data Engineering and Communications Technologies, vol 137. Springer, Singapore. https://doi.org/10.1007/978-981-19-2600-6_39 **[Scopus indexed].**

2. Non-Invasive Anemia Detection Using Images Acquired from Smartphone Camera. In: Kumar, S., Hiranwal, S., Purohit, S.D., Prasad, M. (eds) Proceedings of International Conference on Communication and Computational Technologies. Algorithms for Intelligent Systems. Springer, Singapore. https://doi.org/10.1007/978-981-19-3951-8_61

3. Drug Classification using Machine Learning and Interpretability, Smart Technologies, Communication and Robotics (STCR), IEEE Xplore, 2021 **[Scopus indexed].**

4. Smart Farming, Proceedings of International Conference on Recent Trends in Machine Learning, IoT, Smart Cities and Applications, Springer, Singapore, 2021 **[Scopus indexed].**

5. Serverless Computing and the Emergence of Function-as-a-Service, International Conference on Recent Trends on Electronics, Information, Communication and Technology, RTEICT, IEEE Xplore, 2021 **[Scopus indexed].**

6. A Proposed Solution to Build a Breast Cancer Detection Model on Confidential Patient Data using Federated Learning, IEEE Bombay Section Signature Conference (IBSSC), IEEE Xplore, 2021 **[Scopus indexed].**

7. A Parallel Apriori Algorithm and FP- Growth Based on SPARK, International Conference on Automation, Computing and Communication, ITM Web of Conferences, 2021 [Open Access].

8. Financial Investment Recommendation and Decentralized Account Management, 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), IEEE Xplore, 2020 **[Scopus indexed].**

9. Implementation of residual network (ResNet) for Devanagari Handwritten Character Recognition, Advanced Computing Technologies and Applications, Springer, Singapore, 2020.

10. Comparison of traditional machine learning and deep learning approaches for sentiment analysis, Advanced Computing Technologies and Applications, Springer Singapore, 2020.

11. Implementation of A Distributed P2P Storage Network, IEEE International Conference for Innovation in Technology (INOCON), IEEE Xplore, 2020 **[Scopus indexed].**

12. A Proposed Approach for Financial Investment Recommendation and Decentralized Account Management, Advanced Computing Technologies and Applications, Springer, Singapore, 2020.
13. A Distributed Peer-To-Peer Storage Network, International Conference on Smart Systems and Inventive Technology (ICSSIT), IEEE Xplore, 2019 [Scopus indexed].
14. Evaluating the Performance of Proposed IODAM Algorithm, International Conference on Nascent Technologies in Engineering (ICNTE), IEEE Xplore, 2019 [Scopus indexed].
15. Automated aspect extraction and aspect-oriented sentiment analysis on hotel review datasets, Fourth International Conference on Computing Communication Control and Automation (ICCUBEA), IEEE Xplore, 2018 [Scopus and Web of Science].
16. A Machine Learning Approach to Foretell the Probability of a Crop Contracting a Disease, Fourth International Conference on Computing Communication Control and Automation (ICCUBEA), IEEE Xplore, 2018 [Scopus and Web of Science].
17. A System that Performs Data Distribution and Manages Frequent Itemsets Generation of Incremental Data in a Distributed Environment, International Conference on Advances in Computing and Data Sciences, Springer, Singapore, 2018 [Scopus indexed].
18. Remodeling the Healthcare Industry by employing Blockchain Technology, International Conference on Circuits and Systems in Digital Enterprise Technology, ICCSDET, IEEE Xplore, 2018 [Scopus indexed].
19. An incremental mining with ODAM (IODAM), International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT), IEEE Xplore, 2017 [Scopus and Web of Science].
20. A review of various approaches to face hallucination, Procedia Computer Science, 2015 [Scopus and Web of Science].

Area of Specialization		Data Mining, Data Analytics, Distributed Computing, Cloud Computing, Unified Modeling Language (UML)
PhD Guide? Give field & University	:	**Field**: NIL **University**:
PhDs / Projects Guided	:	**PhDs :** **Projects at Masters level:** **A Parallel Apriori Algorithm and FP-Growth Based on SPARK (M. Tech)**
Books Published / IPRs / Patents	:	Books (Editors for conference Proceedings on Springer) **"Practical Data Mining Techniques and Applications"** to be published in CRC Press, Taylor & Francis Group, USA
Professional Memberships	:	1. Life Member of ISTE 2. IEEE Member 3. Member of Computer Society of India 4. CPOC, AWS Academy

Grants fetched	: Minor Research Grant (University of Mumbai)	NIL
Interaction with Professional Institutions	:	
	Guest Lectures:	
		1. 7 teams from DJSCE selected for Grand Finale, 2022. 5 teams won the First Prize of Rs. 1 Lakh at various nodal centers. One team won the Second Prize. 8 students selected in UNESCO-India Africa International Hackathon.
		2. SPOC, Smart India Hackathon, 2018-2022.
		3. Won Second Prize by team Syncx and cash of Rs. 75000/- in 2018
	Other Achievements and Responsibilities:	4. Won First Prize by team SPYDER and cash of Rs. 75000/- in 2019
		5. Encouraged students to initiate the process of forming the Google Developer Student Club in DJSCE in 2021-22.
		6. Collaboration with Centre for Development of Advanced Computing (CDAC), Mumbai for OLAB's Virtual Labs, June 2020 onwards.
		7. Reviewer of International Conference on Communication, Information and Computing Technology 2021.
		8. Reviewer of International Conference on Automation, Computing and Communication 2021.
		9. Panel member for conducting the Personal Interview process of MCA and MBA, NMIMS university.
		10. Academic Expert to conduct External Academic Audit at Xavier Institute of Engineering (XIE), Mahim, April 2022.
		11. An Expert of the interview panel for the post of Research Scientist in CS and IT at SAMEER, IIT Powai, June 2022.
		12. Member of Syllabus Design Committee for Mumbai University.

Subjects Taught

UG Level:
1. Parallel and Distributed Systems
2. Image Processing
3. Data Warehousing and Mining
4. Data Analytics
5. Object Oriented Analysis & Design
6. Microprocessor
7. Computer Programming (C/C++ and JAVA)
8. Advanced Database Management System
9. GUI & Database System
10. Computer Organization & Architecture
11. Middleware & Enterprise Integration Technologies

PG Level:
1. Advanced Data Management Systems
2. Advanced Data Structures
3. High Performance Computing

Projects Guided (50 +)	:	**PG Level:**

PG Level:

1. A Parallel Apriori Algorithm and FP-Growth Based on SPARK

UG Level:

1. Intelligent Form Reader
2. A Voice Operated System: An Online IQ Test Platform for Visually Impaired
3. A Distributed P2P Storage Network
4. Smart Farming
5. Financial Investment Recommendation and Decentralized Account Management
6. Smart Cradle
7. Crop Disease Prediction
8. MediTrack: Employing Blockchain Technology in the Healthcare Industry
9. Automated Database and Api Management
10. Intelligent Devanagari Text Recognizer

Awards And Recognitions :

1. Topper in First Year of M. Tech at NMIMS University, 2009 (Prize: Rs. 25000/-).
2. Topper in Final Year of M. Tech at NMIMS University, 2010 (Prize: Rs.25000/-).
3. Award for Continuous Student Branch Counselor, Computer Society of India, 2017-2019.
4. Best Student Chapter, Computer Society of India, 2017-2019.
5. Best Active Student Chapter, Computer Society of India, 2016-2017.
6. Best Project Guide, TCS, 2014.
7. Best Teacher, DJSCE, 2011.
8. Loyalty and Appreciation for Performance in DJSCE, 2007 and 2010 from SVKM.

Institute/Department Responsibility handled:

1. **Head of IT Department, January 2020-till date. Following are the Responsibilities Handled/Initiatives Taken:**

   - As **Chairperson of Board of Studies** of Information Technology Department, actively involved in new autonomous syllabus design from Semester III to VIII. Introduction of specialization tracks with respect to IT domains in syllabus was well appreciated by BOS members and successfully implemented in current scheme.

   - Initiated the **collaboration with CDAC (MoU signed)** for development of virtual labs and educational games and successfully implemented and deployed 10 projects and currently 23 projects are in development phase.

   - As **Vice Chairperson of Admission Committee** at Institute Level, successfully handled the responsibility of Software In charge to work rigorously with SAP team. By leading the Software Team, expertly handled both the rounds of Admission – Institute Level and CAP. The tasks involve Application Form Testing, generation of Merit Lists, collaboration with SAP team for resolving the issues during Counselling and CAP Rounds.

   - Initiated the work on **redesigning of College Website**. The existing college website www.djsce.ac.in designed in 2013-14 is still functional, but its design has reached its limitation in terms of User Interface and User Experience (UI/UX). There was a need to develop a mobile-friendly website that displays the contents in the exact same way across different types of devices.

   - Granted Recognition from Mumbai University as a teacher to **guide students for PhD Degree and M. Tech Degree** in the subject of Computer Engineering.

   - Efficaciously worked on innovative projects and towards **IPR.** Filed a patent for one of the innovations in Govt. of India. Also, 3 copyrights are registered, and 3 copyrights are approved by Govt. of India.

   - Encouraged my project students to participate in project competition and teams have won the second prize and prize money of Rs.7000/- in **DJASCII State Level Project Competition** (2021 and 2022).

   - In continuation with the ICACTA conference series, organizing the Third International Conference on Advanced Computing Technologies and Applications **(ICACTA 2023)** on the theme "Artificial Intelligence and Evolutionary Computing" in October 2023 in collaboration with Computer Engineering Department. The Technical Sponsorship received from IEEE Bombay Section.

   - Provided a platform by introducing, guiding and initiating the Google Developer Student Club at college level for students who are interested in Google developer technologies. **DJSCE-GDSC** Club officially formed in 2021.

   - As **SPOC of Smart India Hackathon**, initiated and successfully conducted internal hackathon in the college where 28 teams (6 members each team) were nominated from DJSCE. 7 teams from DJSCE selected in the Grand Finale at different nodal centers. 5 teams won the First Prize of Rs. 1 Lakh at various nodal centers. One team

won the Second Prize. 8 students selected in UNESCO-India Africa International Hackathon.

- As **Branch Counselor of DJ-Computer Society of India** (DJCSI), successfully organized 24-hour hackathon (Hybrid Mode) in DJSCE in March 2022 along with many other technical events and workshops. The eighth edition of CodeShastra (24-hour hackathon) garnered 800+ registrations, out of which a total of 70 teams were shortlisted. 45 teams got the opportunity to participate offline at the venue while 25 teams participated online through Discord, in the comfort of their homes.

- To inculcate the research culture in the department, **DJINIT.AI club** and R&D club have been formed to encourage students to work on research projects and further progress with paper publications in journals and conferences.

- As **Faculty Mentor of DJCODESTARS** – Programmers club, encouraged team to imbibe the importance of competitive coding through lecture series and coding competition.

- Guided students to develop projects that will be used by Institute and Department for their day-to-day activities. Projects Developed – Student Profile Portal, Automated Leaving Certificate Generation Portal, Railway Concession Portal, DJCSI App.

- Content preparation for different courses such as C/C++ and JAVA to help students to understand the concepts easily with the help of programs.

- Organized FDPs and webinars in the Department.

- Scheme and Syllabus design to offer B. Tech in IT and Honors in DevOps (Development and Operations) and Minors in Artificial Intelligence and Machine Learning.

2. **Associate Head of IT Department, 2018-2020.**

3. **Chairperson, Board of Studies of Information Technology Department, 2020 onwards.**

4. **Member, Board of Studies of Information Technology Department, 2019-20.**

5. **Vice Chairperson of Admission Committee, DJSCE, 2020 onwards.**

6. **Member, Software Team of Admission Committee, DJSCE, 2010 - 2019.**

7. **Department Program Coordinator, NBA Accreditation Committee, 2020, DJSCE**

8. **Department Coordinator, Autonomy Committee, DJSCE.**

9. **Organizing Chair of 2nd International Conference on Advanced Computing Technologies and Applications organized by SVKMs Dwarkadas J. Sanghvi College of Engineering, 2020.**

10. **Treasurer of 1st International Conference on Advanced Computing Technologies and Applications organized by SVKMs Dwarkadas J. Sanghvi College of Engineering, 2015.**

11. Co-Convenor of DJASCII- A State Level Project Competition, organized by SVKMs Dwarkadas J. Sanghvi College of Engineering, 2020 and 2021.

12. Treasurer of DJASCII- A State Level Project Competition from 2015 to 2019, organized by SVKMs Dwarkadas J. Sanghvi College of Engineering

13. Student Branch Counselor of Student Chapter of Computer Society of India, 2017 onwards.

14. Faculty Mentor of Programmers Club (DJCODESTARS), 2015 onwards.

15. Paper Setter in various subjects in the Branch of Computer Engineering and Information Technology for University of Mumbai and NMIMS University.

Dr. (Mrs.) Vinaya Sawant
Head, Department of IT
Dwarkadas J. Sanghvi College of Engineering