

SWAPNANJALI THORGULE

Pune, Maharashtra, India

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✉ sthorgule@gmail.com

PROFESSIONAL SUMMARY

Dedicated and knowledgeable academic **professional with over 13 years of combined experience in teaching and industry, including Assistant Professor, Lecturer, School Teaching, and Industrial roles**. Expertise in Electronics, VLSI, Embedded Systems, IoT, and Digital Electronics with strong capabilities in concept-based teaching, curriculum development, and student mentoring. Experienced in academic coordination, technical event management, and examination administration. Skilled in ERP systems, industrial practices aligned with Six Sigma standards, and project monitoring using Critical Chain Project Management (CCPM). Passionate about fostering innovation, research orientation, and practical learning among students.

EDUCATION

Master of Engineering (M.E.) – Electronics & Telecommunication

Specialization: VLSI & Embedded Systems

Siddhant College of Engineering, Sudumbare, Pune

Savitribai Phule Pune University | 2024

CGPA: **8.51**

Bachelor of Engineering (B.E.) – Electronics

Finolex Academy of Management & Technology

Mumbai University | 2006

Percentage: **61%**

Higher Secondary Certificate (HSC) – Science

Maharashtra State Board | 2001

Percentage: **82%**

Secondary School Certificate (SSC)

Maharashtra State Board | 1999

Percentage: **83%**

PROFESSIONAL EXPERIENCE

Assistant Professor

Dr. D. Y. Patil College of Engineering & Innovation, Varale Campus, Talegaon Dabhade, Pune

2024 – Present

- Deliver lectures and practical sessions in **Computer Engineering** Department.
- Develop course materials and laboratory exercises aligned with **Outcome Based Education (OBE)**.
- Contribute to academic development and in **NBA Criteria work**.
- Mentor students in academic and project activities.

Lecturer

Siddhant College of Engineering, Sudumbare, Pune

2022 – 2024

- Taught core engineering subjects including **Digital Electronics, Microprocessors, Embedded Systems, IoT, Control Systems, PLC and Industrial Automation.**
- Coordinated **technical events and cultural activities** for student engagement.
- Served as **MSBTE Online Examination Coordinator** ensuring smooth exam operations.

Store In-Charge

Siddhant Tools Pvt. Ltd., Chakan

2021 – 2022

- Managed **inventory, procurement, and vendor coordination.**
- Utilized **ERP systems for inventory tracking and procurement operations.**
- Implemented **industrial practices aligned with Six Sigma quality standards.**

Assistant Teacher

Priyadarshani English Medium School, Pimpri

2018 – 2021

- Taught **Mathematics, Science** at the State Board level.
- Developed lesson plans and activities to enhance conceptual understanding.

Assistant Teacher

Abhishek Vidyalayam, Chinchwad

2015 – 2018

- Delivered instruction in **Physics, Mathematics, and General Science** for CBSE curriculum.
- Assisted in student development activities and academic mentoring.

Trainee Engineer

TATA Metallics Ltd., Redi

2006 – 2007

- Assisted in industrial operations and maintenance processes.
- Gained practical exposure to **manufacturing and engineering operations.**
- Coordinated with project teams using **Critical Chain Project Management (CCPM)** software and reported progress to the Project Director.

RESEARCH PAPER PUBLICATIONS

- “Clustering Optimization using Fuzzy C-Mean Clustering and Artificial Bee Colony Algorithm for Wireless Sensor Network”
In *African Journal Of Biological Science*, ISSN: 2663-2187, Volume 6, Issue 9, 2024
<https://doi.org/10.33472/AFJBS.6.9.2024.3383-3390>
- “AI-Powered Task Scheduler for Multi-Node Space–Ground Computing Using AI : Architecture, Simulation, and Intelligent Decision Framework”
In *International Journal of Advanced Research in Science, Communication and Technology*
Volume 5, Issue 3, November 2025 , ISSN: 2581-9429
<https://www.ijarsct.co.in/> DOI: 10.48175/IJARSCT-29808

PATENT PUBLICATIONS

- “Smart Writing Device For Cardiovascular Monitoring And Emergency Response”
Patent No.579161 From 18th March 2025

PAPER PRESENTATION IN INTERNATIONAL CONFERENCES

- “Agriculture Field Monitoring Using Wireless Sensor Network and Artificial Intelligence Based techniques” in ICRTET-2023 (International Conference on Recent Trends In Engineering & Technology) Organised By Siddhant College of Engineering , Sudumbare, Pune during 18th & 19th April 2023
 - “Energy Efficient Load Balanced Clustering Routing Protocol based on Artificial Bee Colony Algorithm” in *Epgpx-2024* Organised By *Board of Studies(E&TC)* in association with Trinity College of Engineering and Research , Pune on 12th June 2024
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TEACHING EXPERTISE

Engineering Subjects:

- Digital Electronics & Logic Devices
- Microprocessors and Microcontrollers
- Embedded Systems
- Internet of Things (IoT)
- Digital Techniques
- Control Systems and PLC
- Industrial Automation
- Engineering Product Design
- Mechatronics
- Environmental Studies
- Maintenance of Electronic Equipment
- EDA Tools

School Subjects:

- Mathematics
 - Physics
 - General Science
 - Social Studies
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TECHNICAL SKILLS

- Embedded Systems & IoT Concepts
 - Digital Electronics and Microprocessor Programming
 - EDA Tools (Basic Exposure)
 - ERP Systems
 - Critical Chain Project Management (CCPM)
 - Six Sigma aligned industrial practices
 - Programming basics: **Java, Oracle**
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CERTIFICATIONS & TRAINING

- Diploma in **Software Testing**
- Certificate Course in **Teacher Training Course**
- Certificate Course in **Computer Programming (Java & Oracle)**
- Certificate Course in **Computer Applications**
- Certificate of participation in **International Day of Yoga 2024 Quiz by Ministry of Ayush & MyGov**

FACULTY DEVELOPMENT PROGRAMS

- 5 days Short-Term Training Program on “**Sustainable Innovation Ecosystems: Technology IPR Frameworks & Start up Policies**” Organized by Department Of Information Technology in collaboration with R&D Cell, *Dr.D.Y.Patil Institute of Technology, Pimpri, Pune* from 2nd February to 6th February 2026
- 5 days Faculty Development Programme on “Research in Education and Learning Outcomes” Organised by Department of Information Technology in collaboration with R&D Cell , *Dr. D.Y.Patil Institute of Technology, Pimpri Pune* from 17th to 21st March 2025.
- One week National level Faculty Development Programme on “**AI Proficiency and Current Scenario**” Organised by Department of Artificial Intelligence and Data Science, *Dr.D.Y. Patil College of Engineering and Innovation,Varale Campus, Pune* from 10th March to 15th March 2025
- One day Faculty Orientation Program on “**Adhunik Bhartiya Bhasha:Marathi**” Organised by *SND College of Engineering and Research Centre Babhulgaon ,Yeola,Nashik* on 20th January 2026
- 5 days Faculty Development Programme on “**Sustainable Societies through AI: Research and Innovations in Healthcare**” Organised by Department of Information Technology, *Dr D.Y. Patil Institute of Technology, Pimpri ,Pune* on 29th December 2025 to 2nd January 2026
- One week online International Faculty Development Program on “**Industry Integrated AI and ML:Tools, Trends and Agentive AI Evolution**” Organised by Department of Computer Engineering, *Dr D.Y. Patil Institute of Technology, Pimpri ,Pune* from 7th January 2026 to 12th January 2026
- One day Faculty Orientation Programme on “**Computer Organisation and Microprocessor (PCC-253-COM)** ” Organised by Department of Computer Engineering, *ISBM College of Engineering ,Pune* in association with Board of Studies (BoS) Computer Engineering ,SPPU, Pune on 20th January 2026
- One day Faculty Orientation Program on “**Database Management System (PCC-251-COM) and Database Management Laboratory (PCC-254-COM)**” Organised by Department of Computer Engineering, *Marathwada Mitra Mandal Institute of Technology Lohegaon ,Pune* on 23rd January 2026
- 5 days National level FDP on “**Cyber Defence Tools: A Practical Approach**” Organised by the Department of Artificial Intelligence and Data Science, *Marathwada Mitra Mandal College of engineering, Pune* from 22nd to 27th December 2025
- International Level one-week FDP (Online) on “**Effective Research Paper Writing: Principles and Practices**” organized by the Research & Development Cell, *PCCOE&R* from 27th to 31st January 2026
- One day Faculty Development Programme on “**Project Management : Objectives, Rationales and Activities**” organised by Entrepreneurship Development Cell and Institutions Innovation Council of *Sanketika Vidya Parishad Engineering College, Visakhapatnam* on 23rd February 2026
- One day Faculty Orientation Programme on “**Environmental Studies**” organised by Artificial intelligence and Data Science,Department , *Pune Vidyapith Gruha’s College of Engineering, Technology and Management, Pune* under BoS Computer Engineering SPPU Pune on 29th of January 2026
- One day faculty orientation programme on “ **Internet of things (SE Computer 2024 pattern)**” organised by Department of Computer Engineering , *Guru Gobind Singh College of Engineering and Research Centre, Nashik* in association with BoS Computer engineering SPPU Pune held on 22nd January 2026
- FDP on **Teaching Skills, Outcome Based Education & Stress Management** – Siddhant College of Engineering
- FDP on **Internet of Things and its Applications** – AISSM Polytechnic, Pune
- FDP on **Value Education** – SPM Polytechnic, Kumathe
- FDP on **Youth Leadership for Climate Action** – Maha Yuva Jal Samvardhak

ACADEMIC & ADMINISTRATIVE RESPONSIBILITIES

- Technical Event Coordinator
- Cultural Event Coordinator
- MSBTE Online Examination Coordinator
- Student mentoring and academic guidance

PERSONAL SKILLS

- Strong analytical and logical thinking
- Excellent communication and interpersonal skills
- Effective classroom management and student engagement
- Concept-driven teaching methodology
- Honest, disciplined, and highly dedicated professional
- Freelance Singer on social media platforms having 60K+ followers
- Performed at local events and functions.

PERSONAL DETAILS

Gender: Female

Languages Known: English, Hindi, Marathi

Hobbies: Teaching, Singing

Address: F-1704, Western Avenue, Near Hotel Sayaji, Wakad, Pune

Date: 15 March 2026

Place: Pune

Swapnanjali Thorgule