VINITA AMEYA VARTAK

vinita.vartak@fragnel.edu.in

Assistant Professor, Department of Computer Science & Engineering

Fr. Conceicao Rodrigues College of Engineering, Mumbai (FrCRCE)

Educational Qualifications:

Degree	Institute	University	Year of Passing	Division
Professional Certificate Course in Data Analytics and Gen AI	E & ICT Academy, IIT Kanpur and Simplilearn	IIT Kanpur	Pursuing	
M.E. (Instrumentation & control)	Vivekananda Education Society's Institute of Technology, Mumbai.	Mumbai University	August 2014	Distinction (77.95 %)
B.E. (Instrumentation)	Rajiv Gandhi Institute of Technology, Mumbai	Mumbai University	May 2004	Distinction (72.93 %, 13th Rank)

Industry Experience:

1. **Larsen & Toubro Ltd. (Heavy Engineering Division)**

Sr. Engineer | April 2008 – Jan 2009 (10 Months)

- Instrumentation system detailing and documentation for engineering projects
- Specialized in Hydrogen Generation Unit
- Coordinated design reviews and vendor documentation

2. **Sci Tech Centre (Associated Capsule Group)**

Sr. Electronics & Electrical Engineer | April 2005 – April 2008 (3 Years)

- PLC, SCADA, MMI Programming, and AC/DC Servo Configuration
- Designed control panels, circuits, schematics for pharma automation
- Commissioned machines like:
  - Automatic Capsule Making Machine
  - Visual Inspection System
  - High-Speed Blister Packing Machine
  - Online Checkweigher

3. **R.K. Control Instruments Pvt. Ltd.**

   Marketing Engineer | **Oct 2004 – April 2005 (7 Months)**

   - Customer requirement evaluation
   - Control valve sizing and selection
   - Designed proposals, quotations, and validated design tools

Academic Experience:

1. **Assistant Professor**

   Fr. Conceicao Rodrigues College of Engineering, Mumbai (FrCRCE), Bandra | Jan 2026 – Present

2. **Assistant Professor**

   Rajiv Gandhi Institute of Technology, Mumbai | August 2014 – Jan 2026

   - Teaching: Analog Electronics, Industrial Automation, Internet of Things, Python Programming, C Programming, Applications of Microcontroller, Digital Signal Processing, Microcontroller and Embedded Systems, Biomedical Instrumentation, AI and ML in Healthcare, Basic Electrical and Electronics Engineering, Linux and Networking and Server configuration

   - Roles: Final Year Project Coordinator, Seminar/Workshop Coordinator, NBA/NAAC committee member, worked as CAP In-charge for A.Y.2022-2023, Subject Convenor (BEEE, C Programming, and Python Programming), Web Site Development committee member for department, Instrumentation Department In charge

   - Additional: Exam Supervisor, Mentor, G-Suite & SWE Chapter Coordinator

3. **Lecturer**

   Vidyavardhini's College of Engineering & Technology, Vasai | **Jan 2009 – June 2011; July 2012 – Aug 2014**

   - Taught: Analog Electronics, Advanced Instrumentation, Control Systems, Electrical Technology and Instruments

Projects Guided:

- At Graduate level – more than 20

Area of Specialization:

- IoT, Microcontroller, Python Programming, AI and ML, Data Science, Machine learning

Certifications & Training:

- Smart **Plant Instrumentation (IN tools)** Training – Vidyavardhini's College of Engineering & Technology, Vasai

- **NPTEL**:

  - Introduction to Internet of Things – 76%
  - Microprocessors & Microcontrollers – 70%
  - Problem Solving through Programming in C- 76% (Top 5% Topper)
  - Python for Data Science -62 %
  - Data Science for Engineers – 64 %

- **Coursera**:

  - IoT & Embedded Systems
  - Crash Course on Python
  - Programming for Everybody (Python)

- **MATLAB Onramp**
- **TATA Steel – Industry 4.0** Training
- IITK DG: Business Analytics with Excel completed in Nov 2025
- IITK DG: Data Acquisition and Manipulation using SQL completed in Dec 2025
- IITK DG: Extract, Transform, and Load (ETL) completed in Jan 2026

FDP's & workshops attended

- 5 days Short Term Training Program on "MATLAB based Teaching-Learning in Mathematics, Science & Engineering" organized by Department of Electronics

Engineering, Ramrao Adik Institute of Technology, Nerul, Navi Mumbai in collaboration with DesignTech Systems Pvt. Ltd., Mumbai during 18th to 22nd May 2020.

- 5 days Short Term Training Program on "Internet of things(IOT) & it's applications in industry" organized by Department of Instrumentation Engineering, Ramrao Adik Institute of Technology, Nerul, Navi & B & R automation Pvt.Ltd., Pune during 8th to 12th June 2020.

- One week faculty development program on "Machine Learning with IoT" organized by Department of Computer Engineering and Department of Information Technology from 16th -20th December 2019

- One Week Faculty Development Program on "Spoken Tutorial Technology" organized by Department of Mechanical Engineering of Smt. Kashibai Navale College of Engineering in association with Spoken Tutorial IIT Bombay from 18th to 22nd May 2020.

- One Week Faculty Development Program on "Data Science with Python" organized by Department of Computer Engineering of Terna Engineering College in association with Techno Gurus Tutorials, Thane from 18th to 22nd May 2020.

- One Week Online Faculty Development Program on ""Innovative trends in engineering and technology" organized by IQAC, Shree. L. R. Tiwari College of Engineering from 25th May to 29th May, 2020.

- AICTE Training And Learning (ATAL) Academy Online FDP on "Internet of Things(IOT)" from 25th May to 29th May 2020 at Dr. Babasaheb Ambedkar Technological University, Lonere.

- Two Week Online Faculty development program on "Prayog– Experiments on click" - Using Virtual Labs from 18th May 2020 to 27th May 2020 organized by Department of Instrumentation Engineering, Vidyavardhini's College of Engineering and Technology, Vasai, (NC-17) in association with College of Engineering, Pune(COEP).

- One week Online Faculty Development Program on "Opportunities & Challenges in Electronics & Allied Industries in India post COVID-19"from 25th to 30th May 2020 organized by Department of Electronics Engineering in association with Institution's Innovation Council (IIC) of Vivekanand Education Society's Institute of Technology.

- Two Week Online Faculty development program "Automatus 2020 - Make Automation Yours" based on SCADA and PLC training from 1st June 2020 to 12th June 2020 organized by Department of Instrumentation Engineering, Vidyavardhini's College of

Engineering and Technology, Vasai, in association with Cierto Control & Solutions, Omron Automation Pvt. Ltd. and Allied Electricals.

- One Week Online Faculty Development Program on "Engineering Education & the Industry: A Post COVID-19 Perspective" held during 1 June, 2020 to 5 June, 2020 at MCT's Rajiv Gandhi Institute of Technology Andheri (West) Mumbai.

- Three Days Faculty Development Program on "e-learning: Managing online classes and creating e-contents" Organized by "IQAC and Department of Information Technology" of MCT's Rajiv Gandhi Institute of Technology, Mumbai held from 5th July to 7th July 2020.

- One day webinar on " IT trends post covid" ,Organized by Department of Computer Applications, B.S. Abdur Rahman Crescent Institute of Science and Technology,Vandalur, Chennai on 6th May 2020.

- Four days webinar series on "IT and IPR 2020" organized by IQAC, Shree. L. R. Tiwari College of Engineering from 5th May to 8th May, 2020.

- One day webinar on "Use of excel skills in Research", organized by Universal College of Engineering, Kaman on 12th May 2020 in association with Maharashtra Association of Minority Educational Institutes.

- One day webinar on "Star certified DevOps Exert 2.0",organised by star certification on 13th May 2020.

- Three day "Tech Talk 2020 Webinar Series" organized by Department of Instrumentation Engineering from 13th to 15th of May 2020 at Vidyavardhini's College of Engineering & Technology Vasai.

- One day webinar on "IOT-Mechanical Engineering Prospective & Case Studies", organized by Department of Mechanical Engineering, Amrutvahini College of Engineering,Sangamner on 15th May 2020.

- One day webinar on "NAAC: Systematic Data Organization and Presentation", organized by IQAC, Vidyalankar Institute of Technology, Mumbai on 16th May, 2020.

- Two days webinar on "Startup Lifecycle and Patent Registration "jointly organized by ACE Innovation Cell, IPR Cell, ACE Institution Innovation Council- MHRD, ACE-Incubation Center- MSME, IEDC-DST, ACE Ember Ecell NEN, Atharva College of Engineering held on 18th - 19th May 2020.

- One day webinar on "Insights & Data Visualization" organized by Department of Computer Engineering, SLRTCE on 19th May, 2020

Projects Handled (Industry)

- Hydrogen Generation Unit – L&T
- Online Checkweigher
- Automatic Band Sealing Machine
- Servo Controlled Pallet Filling Machine
- Four-Color Printing Machine

Technical Skills

- **Industry Software**: Smart Plant IN tools, Electrical CAD, Schematic Diagram Tools
- **Programming**: Python, C, Linux Shell Scripting, MATLAB
- **Automation**: PLC/SCADA, Control Panel Design, MMI, Servo

Publications & patents

- **Patent**: *SMART IoT-enabled attendance system using RFID* – Published 02/08/2024
- **Paper**: *PID Controller Selection for Unmanned Ground Vehicle*, ICSCET-2018

Key Strengths

- 19+ years of combined **industry** + **academic** experience
- Proficient in Python (NumPy, Pandas, Matplotlib), C programming, and Linux Shell scripting for automation and data workflows.
- Excellent in project execution, documentation, and team mentoring
- Active contributor to university curriculum and evaluation