**Name: Mrs. Sonali Yugesh Pakhmode (Lohbare)**

Assistant Professor at Vasantdada Patil Pratishthan’s College of Engineering & Visual Arts





# Department:

Information Technology

# Institute:

Vasantdada Patil Pratisthan’s College of Engineering & Visual Arts

# Location:

Sion, Mumbai-22

# Email Address:

spakhmode@pvppcoe.ac.in

**Personal Profile**

**Introduction**

As an Assistant Professor in the IT Department at Vasantdada Patil Pratishathan’s College of Engineering & Visual Arts in Mumbai since July 2007, I am driven by a strong commitment to delivering the best in teaching and collaborating with dedicated individuals. With a diverse teaching background encompassing subjects such as Internet of Everything (IOE), Database Management Systems (DBMS), Computer Networks (CN), Analog and Digital Circuits, Principal Communication Engg., Digital Logic &Design Applications, Microprocessor & Microcontroller, Computer Organization & Application, and more, I possess comprehensive knowledge and experience in these areas.

Regarding my education, I am currently pursuing a Ph.D. from Raisoni Centre of Research and Innovation, G H Raisoni University, Amravati. I hold a Master's degree (M Tech) in Control Systems from V J T I Mumbai, a Bachelor's degree (BE) in Electronics from Amravati University, and a Diploma in Electronics & Communication Engineering from the Board of Technical Examinations Mumbai.

Beyond teaching, I actively contribute to the growth and accreditation of the college. This includes serving as an ISTE Approved STTP Coordinator, guiding final-year projects as an Internal Guide, coordinating the timetable committee, and assuming roles as an alumni coordinator, event head, class advisor, and NBA criteria head, Technical event head. These endeavors highlight my dedication to enhancing the institution's educational standards.

# In summary, I am a dedicated and accomplished Assistant Professor with a strong passion for teaching and a commitment to student success. With a proven track record of delivering quality education and actively contributing to institutional growth, I am well-positioned to make a meaningful impact at Vasantdada Patil Pratishathan’s College of Engineering & Visual Arts from July 2007 till date. Previously worked with Nine Enterprises Pvt Ltd Pune (Steel wire Manufactures) as Quality Assurance Engineer from 2002 to 2005 also worked as Visiting Lecturer at COP Pune & Visiting Lecturer at Govt Poly, Pune from Nov 2000 to 2002.

**Education**

| **Name of Exam** | **University/Board** | **Percentage** | **Division** |
| --- | --- | --- | --- |
| PhD (pursuing) 2019 | Raisoni Centre of research and Innovation, G H Raisoni University, Amravati | **Thesis Report Submitted** | **-** |
| M Tech (Control System) 2007 | V J T I Mumbai | 6.1 | CPI |
| BE(Electronics)2000 | Amravati University | 60.51% | 1st |
| Diploma  (Electronics&Comm.Engg.)1997 | Board of Technical Examinations Mumbai | 65% | 1st |
| S S C 1991 | Maharashtra State Board of Secondary and Higher Secondary Education Pune. | 68% | 1st |

# Professional Experience

* Vasantdada Patil Pratishathan’s College of Engineering & Visual Arts, Mumbai as Assistant Professor in IT Dept. from July 2007 to till date.

# Nine Enterprises Pvt Ltd Pune (Steel wire Manufactures) as Quality Assurance Engineer from 2002 to 2005.

* Visiting Lecturer in COP Pune from Nov 2000 to 2002.
* Visiting Lecturer in Govt Poly. Pune in 2002

# Courses/ Subject Teaching

* Internet of Everything (IOE)
* Database Management Systems (DBMS)
* Computer Networks (CN)
* Management Information Systems (MIS)
* Computer Organization & Architecture (COA)
* Digital Logic & Linear Circuits (DLLC)
* Principal Communication Engg (PCE)
* Digital Logic & Design Applications (DLDA)
* Microprocessor & Microcontroller (MPMC)
* EMI (Electromagnetic Interference)
* Control System
* Network Theory

**Additional Professional Experience**

* ISTE STTP Coordinator
* NBA Criteria Head
* Academic Coordinator
* Timetable Committee Coordinator
* Alumni Coordinator
* Technical Event Head
* Internal Guide for final-year projects
* Internal Guide for Mini projects
* Class Advisor

# Research Specialization:

# IoT, Wireless Communication, Embedded Systems, AI, ML, Blockchain

# STTP/ FDP

* She has attended various STTPs, FDPs, and Courses and has been awarded Certificates.
* These are listed as follows,

| **S. N** | **STTP/ FDP/ Course Name** | **Start Date** | **End Date** | **No. of Days** | **Organization** |
| --- | --- | --- | --- | --- | --- |
| 1 | ISTE approved STTP/FDP Programme on "Emerging Trends on Data Science and Data Security" | 02-01-2023 | 07-01-2023 | 6 | VPPCOE & VA Sion Mumbai |
| 2 | "Data Analytics: Tools & Techniques" AICTE Training And Learning (ATAL) Academy Online Advanced FDP | 22-11-2021 | 26-11-2021 | 5 | University of Hyderabad |
| 3 | "Machine Learning" AICTE Training and Learning (ATAL) Academy Online Elementary Nation FDP | 08-11-2021 | 12-11-2021 | 5 | Bharati Vidyapeeth College of Engineering for Women, Pune |
| 4 | "Heart Rate Variability-Monitoring, Analysis, and diagnosis" AICTE Training and Learning (ATAL) Academy Online FDP | 25-10-2021 | 29-10-2021 | 5 | Model Engineering College |
| 5 | "Wearable Devices" AICTE Training and Learning (ATAL) Academy Online FDP | 30-11-2020 | 04-12-2020 | 5 | ATAL Academy |
| 6 | "Biosimilar Technology" AICTE Training and Learning (ATAL) Academy Online FDP | 23-11-2020 | 27-11-2021 | 5 | ATAL Academy |
| 7 | One week FDP on Python, by Spoken Tutorial IIT Bombay | 18-05-2020 | 23-05-2020 | 6 | Spoken Tutorial IIT Bombay |
| 8 | Five days STTP on "IoT-Applications" | June 2020 | - | 5 | - |
| 9 | Five days STTP on Recent Trends & applications of Machine Learning & Deep Learning in IT | May 2020 | - | 5 | ATAL Academy |
| 10 | Spoken Tutorial IIT Bombay, one-week FDP on "PHP & MYSQL" | 23-05-2020 | 29-05-2020 | 7 | Spoken Tutorial IIT Bombay |
| 11 | "Emerging Industrial IoT Applications" organized by Department of E&TC Engineering | 29-08-2020 | 3-09-2020 | 5 |  |
| 12 | "Internet of Things (IoT)" AICTE Training and Learning (ATAL) Academy Online FDP | 15-12-2020 | 19-12-2020 | 5 | ATAL Academy |
| 13 | Two days workshop on Wireless Network at PVPPCOE, Sion | 18-12-2015 | 19-12-2015 | 2 | PVPPCOE, Sion |
| 14 | Two Week ISTE approved STTP on "Simulation of Networks Using Network Simulator-2" and "Open Source Software tools for Engineering Curriculum & NS 2" | 16-06-2015 | 26-06-2015 | 11 | PVPPCOE, Sion |
| 15 | Refresher Training Program on Teaching Methodologies, Soft Skills & Research Methodology | 11-08-2011 | 12-08-2011 | 2 | PVPPCOE, Sion |
| 16 | ISTE & IETE approved one-week STTP "PIC controllers & Arm Processors" | 18-01-2010 | 22-01-2010 | 5 | PVPPCOE, Sion |
| 17 | ISTE approved one week course on "MATLAB Tour of Engineering Applications" | 11-01-2010 | 15-01-2010 | 5 | PVPPCOE, Sion |
| 18 | ISTE approved course of two days on "Digital Signal & Image Processing using MATLAB" | Sep 2008 | 2008 | 5 | PVPPCOE, Sion |
| 19 | ISTE approved a course of three days’ workshop on "Next Generation Networks" | 21-02-2008 | 23-02-2008 | 3 | PVPPCOE, Sion |

# PATENT / BOOKS

1. Patent “Convolutional Neural Network Based Technique to Identify the Security and Privacy Issues in Internet of Things Based Big Data Cloud Systems” year 2023 Application no. 202341032275.
2. Patent “Hybrid-based Medical Imaging Techniques for Early Diagnosis and Prevention of Cardiovascular Diseases” year 2023 , Indian Patent Publication Applied
3. Patent Filing, Application No. 201821046265, entitled “Intelligent Robotics System for Garbage Collection & Sorting” Dec 2018.
4. Test Book “IoT & Wireless Sensor Networks” Published as First Edition. 2023 ISBN: 978-81-19140-63-3.
5. Grant Received from Mumbai University Mrs. Sonali Pakhmode, 20000/- (Minor Research Project) 2019-20.

# Research Publications

# Conference Papers

| **Sr.No.** | **Name of Paper** | **Conference Name** | **Year** | **Site Name** |
| --- | --- | --- | --- | --- |
|  | A Fuzzy-Based Edge Computing Architecture for Enhanced IoT-Driven Healthcare Monitoring System | IOS-SCI JOURNAL | 2023 | IOS-SC122 |
|  | Elimination of Noise from Ambulatory ECG Signal using DWT | International Journal of Engineering Trends and Technology Volume 70 Issue 5 | 2022 | Seventh Sense Research Group® |
|  | Wearable Heart Disease Identification with Convolution Neural Networks | Journal of Optoelectronics. Laser, vol. 41, no. 7, pp. 289–298 | 2022 | Journal of Optoelectronics |
|  | Design of Sidechain Based High-Security Model for Energy-Aware ECG Classification Deployments | SPCON IEEE conference, Mumbai | 2022 | IEEE |
|  | A.I. Powered Chatbot for Healthcare | International Journal of Advanced Research in Science, Communication, and Technology (IJARSCT ISSN) | 2022 | SSRN |
|  | Disease Prediction Using Machine Learning And Django And Online Consultation | SSRN | 2022 | SSRN |
|  | End-to-End Supporting System for IoT Applications: Survey | 4th Edition of International Conference on Communications and Cyber-Physical Engineering, CDSA 2021 | 2021 | Springer Nature Singapore |
|  | Analysis and Design of Target Tracking System by using Wireless | JETIRAL06032 Journal of Emerging Technologies and Innovative Research (JETIR) www.jetir.org March 2019, Volume 6, Issue 3 www.jetir.org (ISSN-2349-5162 | 2019 | JETIR |
|  | Analysis and Design of Target Tracking System | IJTIR, ISSN no. 2349-5162 | 2018 | IJTIR |
|  | Voice Based Email System for Visually Impaired People | International Journal for Scientific Research and Development (IJSRD) ISSN (online): 2321-0613 | 2016 | IJSRD |
|  | SD Card to SD Card Data Transfer without PC | IJIR, ISSN:2454-1362, vol-2, Issue-5 | 2016 | IJIR |
|  | A Survey on Smart PSDM Card | IJIRSET, ISSN: 2319-8753, Volume 5, Issue2 | 2016 | IJIRSET |
|  | Smart Band for Drowsiness Detection to Prevent Accidents | IJIRSET, ISSN:2319-8753, Volume5, Issue1 | 2016 | IJIRSET |
|  | DTMF Controller Robot | International Journal of Advancement in Engineering Technology Management & Applied Science (IJAETMAS) ISSN: 2349-3224, pg .no. 24-30, Volume3, Issue 3 | 2016 | IJAETMAS |
|  | Android-Based Application on "Missing Person Finder" | International Journal for Scientific Research & Development| Vol. 3, Issue 01 ISSN (online): 2321- 0613 (IJSRD/Vol. 3/Issue 01/2015/167) | 2015 | IJSRD |
|  | Global Email Client | International Journal for Scientific Research & Development| Vol. 3,ISSN (online): 2321-0613 | 2015 | IJSRD |
| 17. | SMS to E-mail Convertor | International Journal for Scientific Research & Development| Vol. 3, Issue 01, 2015 | ISSN (online): 2321-0613 | 2015 | IJSRD |
| 18. | Vehicle Information Service using SMS | International Journal for Scientific Research & Development| Vol. 3, Issue 01, 2015 | ISSN (online): 2321-0613 | 2015 | IJSRD |
| 19. | Digital Identity on Internet | IJRITCC Journal Volume 2 issue 2 | 2014 | IJRITCC |
| 20. | [Image stitching using mat lab](https://scholar.google.com/citations?view_op=view_citation&hl=en&user=lnvOCqgAAAAJ&citation_for_view=lnvOCqgAAAAJ:IjCSPb-OGe4C) | International Journal of Engineering Trends and Technology 4 (3), 302-306 | 2014 | IJETT |
| 21. | “GSM Based LAN Monitoring with Client Validation”, | International  conference and Workshop on Advance computing | 2014 | ICWAC |
| 22. | “Smart Phone Based E-Health” | International conference on Recent Trends in Engineering & Technology | 2013 | ICRTET |

**Certificates:**

1. Udemy course on “Networking Fundamentals” 64.5 Hrs. by CCNA Dec. 3, 2019.
2. Udemy course on “Microservices with Go, Spring & RaspPi” 46.5 Hrs. Dec. 2019.
3. Pravishya E Summit 2021 project competition participation September 2021.
4. Galactic Problem -Solver International Space Apps Challenge Pre-Qualifiers certificate 2021.

**Achievements:**

ISTE LIFE MEMBER, LM13009.

**Project**

* Research on “Design and Analysis of IoT-Health Monitoring Based on Low Power Protocol”
* “State Transfer Problem Using Behavior Approach”
* “Microprocessor-based token display with speech.”
* “Remote control for A.C. Power equipment.”