

Name:

Dr. Mrs. Ujjwala Shachindra Thakar

Designation:

Assistant Professor

Contact Details:

Email id: ust_elect@pvgcoet.ac.in

Phone Number with extension: 020 24228258 / 65 / 79 Extn : 422

**Educational Qualifications:**

- Ph. D. (Electrical Engineering), Pune University, Pune, February 2020.
- M.E. (Electrical Control Systems), Pune University, Pune, October 1994. (First Rank)
- B.E. (Electrical), Pune University, Pune, April 1989.

Experience:

- Industrial: 6 Years
- Teaching: 26 Years

Research Interests:

- Control Systems
- Fractional-order systems and control
- Drives

Research Projects:

- Research project titled “Advance Control algorithm for PMSM motor” was completed under BCUD grant of Rs 1,80,000/- for two years from 2013 to 2015.

Field of Consultancy (Aspiring):

- Industrial automation
- Drives and control
- Electric Vehicle

Number of Publications:

International Journal: 04

National Journal: 01

International Conference: 05

National Conference: 05

Number of Books / Book chapters Published: 01

Number of PG Students Guided: 07

Recognition/ Awards:

- Best paper award at International conference on Automatic Control and Dynamic Optimization Techniques (ICACDOT) IEEE 2016 in September 2016.
- Achieved Cambridge International Certificate For Teachers and Trainers (CICTT) with Distinction in June 2011.

Professional Society Memberships:

- Indian Society for Technical Education (ISTE)

Number of FDPs / STTPs organized: 02

Number of Workshops organized: 06

Number of Conferences / Seminars organized: 01

Number of FDPs / STTPs attended: 14

Number of Workshops attended: 23

Number of Conferences / Seminars attended: 11

Number of Online Certification Courses done: 04

Number of Webinar attended: 06

Number of times served as a Resource Person: 07

Number of times served as a Reviewer / Judge: 05

Details of Research papers published:

- Ujjwala Thakar, Vrunda Joshi and Vishwesh A. Vyawahare "Composite nonlinear control using Mittag-Leffler function" in International Journal of Dynamics and Control, DOI:0.1007/s40435-018-00504-7, Springer, January 2019.
- Apte Aishwarya, Ujjwala Thakar, Vrunda Joshi "Disturbance Observer based Speed Control of PMSM Using Fractional Order PI Controller" in IEEE/CAA Journal of Automatica Sinica in January 2019.

- Ujjwala Thakar, Vrunda Joshi, Vishwesh Vyawahare " Design of fractional order PI controllers and comparative analysis of these controllers with linearised, non-linear integer-order and non-linear fractional-order representations of PMSM" in International Journal of Dynamics and Control, DOI 10.1007/s40435-016-0243-0, Springer, pp 1-11, 2016.
- Ujjwala Thakar, Vrunda Joshi, Vishwesh Vyawahare " Fractional-order PI Controller design for PMSM: A model-based comparative study" in International Conference on Automatic Control and Dynamic Optimization Techniques (ICACDOT 2016), IEEE conference, Pune, September 9-10, 2016.
- Ujjwala Thakar, Vrunda Joshi and Vishwesh A. Vyawahare "Design of Fractional-Order PI Speed Controller for Permanent Magnet Synchronous Motor" at the International Symposium on Fractional Signals and Systems, FSS 2015, Romania, between 1-3 October 2015.
- Hrishikesh Mehta, Vrunda Joshi, Ujjwala Thakar, Madhav Kuber and Pradeep Kurulkar "Speed Control of PMSM With Hall Sensors Using DSP TMS320F2812" in Power Electronics and Drives Systems (IEEE PEDS 2015) at Sydney, Australia, between 9-12 June 2015.
- Hrishikesh Mehta, Ujjwala Thakar, Vrunda Joshi, Kirti Rathod and Pradeep Kurulkar "Hall Sensor Fault Detection and Fault Tolerant Control of PMSM Drive System" at 2015 International Conference on Industrial Instrumentation and Control (ICIC) College of Engineering Pune, India between May 28-30, 2015.
- Sushant Patil, Ujjwala Thakar, Vrunda Joshi, Hrishikesh Mehta "SVPWM based Speed Control of PMSM motor with Hall Sensor using DSP TMS 320F2812" in the National Journal by The Institution of Engineers (India) at Pune, between 10-11 October 2015.

Details of books / book chapters published:

Ujjwala Thakar, Vrunda Joshi, Utkal Mehta, Vishwesh Vyawahare "Fractional order PI controller for Permanent Magnet Synchronous Motor: A design based comparative study" in book chapter is published in the book "Fractional Order Systems: Optimization, Control, Circuit Realizations and Applications", by Elsevier in August 2018.

Details of FDPs / STTPs attended in last 5 years:

- Dr. Mrs. U. S. Thakar attended FDP on EV - Vehicle Dynamics and Electric Motor Drives by Swayam NPTEL from Jan-April 2024
- Dr. Mrs. U. S. Thakar attended one week AICTE ATAL FDP on Electrifying the Future: A Comprehensive FDP on Electric Vehicle organized by COE, Pune from 8th January to 13th January 2024.
- Dr. Mrs. U. S. Thakar attended FDP on Internet of Things by Swayam NPTEL from July-Oct 2023.
- Dr. Mrs. U. S. Thakar Attended one week AICTE ATAL FDP on Power Electronic Controlled Drives for Electric Vehicle organized by COE, Pune from 17th to 21st Jan 2022
- Dr. Mrs. U. S. Thakar Attended 3 DAY AICTE EXAMINATION REFORMS ONLINE WORKSHOP organized by All India Council for Technical Education (AICTE) and NITTTR Chennai from 10th to 12th January, 2022.

- Dr. Mrs. U. S. Thakar Attended one week STTP on mathematical modeling and control system design organised by RAIT, Navi Mumbai from 28th June to 3rd July 2021.
- Dr. Mrs. U. S. Thakar Attended One week Faculty Development Program on “Interactive Teaching Learning Strategies With Affective & Cognitive Approach (ITLS)” organised by PVG's COET and GKPIIM, Pune from 21st to 25th June 2021.
- Dr. Mrs. U. S. Thakar Attended Two Weeks Online Faculty Development Program on “Artificial Intelligence Controller for Smart Charging of Electric Vehicle & other Applications” Sponsored by All India Council for Technical Education (AICTE) and organized by PES's MCOE, Pune from 18th to 30th January, 2021.
- Dr. Mrs. U. S. Thakar attended Three Days National Level Online Faculty Development Program on “OUTCOME BASED EDUCATION” organized by PVG's COET from 6 to 8 October 2020
- Dr. Mrs. U. S. Thakar organised and attended one week online faculty development program “Advances in Electrical Engineering” organized by PVG's COET, Pune from 8th to 13th June 2020.
- Dr. Mrs. U. S. Thakar attended faculty development program on AI and ML applications in Power Systems organised by KKWIEE&R, Nashik from 1st to 3rd June 2020.
- Dr. Mrs. U. S. Thakar attended One Week Online Faculty Development Program on Python 3.4.3. Organized by Department of Mechanical Engineering, PVG's COET, Pune in association with Spoken Tutorials Project, IIT Bombay. Duration of Event: One Week Day, From 25th May 2020 to 30th May 2020

Major Portfolios Handled: (college level and department level)

- BOS member for Printing Technology at SPPU
- Central NBA Coordinator
- SPOC MOOC Coordinator
- NEP –OBE Coordinator
- AISHE Coordinator
- B.E. Project Coordinator
- Coordinator for college magazine ‘HOPE’ publication