

Name: **Dr. Mrs. Vrunda A. Joshi**

Designation: Professor and Head,
Electrical Engineering Department
PVG's COET, Pune



Contact Details:

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Educational Qualification:

- Ph.D. (Systems and Control), IIT, Bombay
- M.E.(Control Systems),
- B.E.(Electrical), Pune University.

Research Interests: Mobile Robotics, Drives and Control, Nonlinear Control

Field of Consultancy(Aspiring): Control System, Embedded Robotics, Drives

Consultancy offered:

1. **Title:** Development of control algorithms for brushless D.C. motor drive
Area : Drives and Control
Amount: 8.62 Lakhs
Sponsoring Agency: R&DE(E), Dighi, DRDO Laboratory under CARS scheme
(Contract for Acquisition of Research Services)
Duration: 2 years (2012-14)

Experience:

- 1) Industrial Experience (total years) : 1.5 years
- 2) Teaching Experience(total number of years): 24 years
- 3) Research Experience: 9 years

Research Projects :

1. **Title:** Path planning of nonholonomic systems
Area : Mobile Robotics
Amount: 11.8 Lakhs
Sponsoring Agency: Department of Science and Technology, Delhi
Duration: 3 years (2008-2011)
2. **Title:** Cars that drive and park
Area : Mobile Robotics
Amount: 26.6 Lakhs
Sponsoring Agency: Department of Science and Technology, Delhi
Duration: 3 years (2014-2017)

Publications:

1. **International Journals:** 12
2. **SCI/Scopus indexed:** 21
3. **National Journals:** 03
4. **International Conferences :** 26
5. **National Conferences :** 02

Books Published:

Book Chapter:

“Fractional-order PI controller for Permanent Magnet Synchronous Motor: A design based comparative study” UjjwalaThakar, Vrunda Joshi, Utkal Mehta VishweshVyawahare, Chapter 18(pp. 553-576) in a book ‘Fractional Order Systems Optimization, Control, Circuit Realizations and Applications’ Publisher: Academic Press, Elsevier. Editors: Ahmad Taher Azar and Ahmed G. Radwan

PG/PhD guidance:

PhD guidance:

Sr. No.	Name of the student	Title of thesis	Status
1	Ujjwala Thakar	Fractional order based advance control of PMSM motor	Degree awarded
2	Aishwarya Apte	Disturbance observer based control of PMSM motor	Degree awarded

PG Students Guided - ME (Electrical Power system) : 13 Completed

Professional Society Memberships:

ISTE-Life membership number: LM26385

Recognitions/ Awards:

- The online course developed on 'Implementation of PID control for Self Balancing Robot' received **Rank 1** at **International Level** in all PLEXP courses developed by Dassault Systems.
- Invited as a review panel member for proposed project 'Concept Design Review (CDR) of the Systems and Technologies for Advanced Robotics [STAR] ' in February 2020.
- Invited as a committee member for Design Review of "Electromagnetic Aircraft Launcher System (EMALS) at R&DE(E), Dighi, DRDO lab in March 2018
- Member, Academic Council of Savitribai Phule Pune University
- Adhoc Chairman, Board of Studies, Electrical for Railway Engineering under Savitribai Phule Pune University.
- Recognized Ph.D. Guide in Electrical Engineering of Pune University
- Recognized Post Graduate teacher of University of Pune.
- The research project "Development of control algorithms for brushless D.C. motor drive" was successfully completed and well appreciated by review committee of R&DE(E), Dighi, Pune, DRDO Lab.
- Recipient of URDIP Women Scientist-C scholarship of DST-TIFAC
- First rank at M.E. (Electrical), Pune University , 1994

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