Curriculum Vitae

1. Name: Mr. Meghraj S. Morey (Ph.D. MNIT Jaipur)

2. Office Address: Department of Electrical Engineering,
Govt. College of Engineering Amravati,
Amravati

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3. Educational Background:

- Ph.D. (Electrical Engineering), Malaviya National Institute of Technology Jaipur
- M.E. (Control System), V.J.T.I., University of Mumbai
- B. E. (Electronics & Power Engineering), GCoE Amravati, Amravati University

5. Area of Research Interests:

- Renewable energy source, Power quality enhancement in grid connected PV Systems
- Challenges and issues in Grid-tied PV systems
- Electrical Machines
- Electric Drives

6. Work Experience:

Total Experience =18 Years

7. Professional Experience:

Joined Govt. College of Engineering Amravati, as an Assistant Professor	From 1st June 2025- till date
Worked in Govt. College of Engineering Aurangabad, as an Assistant Professor	During 2 June 2018- 04 June 2025
Worked in Govt. College of Engineering Chandrapur, as an Assistant Professor	During 07 Sept. 2010- 01 June 2018
Worked as BoS member in Gondwana University, Gadchiroli in Electrical Engineering Faculty	During 2015-18
Worked as lecturer in AISSMS Institute of Information Technology Pune	During 2007-2010
Worked as lecturer in V.J.T.I. Mumbai	During 2005-07

8. Student Guidance:

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- B.E. Projects : 12
- M.E. Projects : 04

9. Publications:

- International Journals: 08
- National Journals: Nil
- International Conferences:10

Patents Filed

1. An electronic converter for high voltage scaling in low voltage solar PV integrated applications, Patent id 202411098087, Date of Filing: 12/12/2024 **(Status : Under Examination)**
2. Grid-interactive solar photovoltaic fed active harmonics compensator and control method thereof, Patent id 202411102950, Date of Filing: 25/12/2024 **(Status : Published)**
3. An electronically coupled grid- solar photovoltaic system and control method thereof, Patent id 202411104407, Date of Filing: 30/12/2024 **(Status :Under Examination)**

List of Journals Published

1. **M. Morey**, N. Gupta, M. M. Garg, A. Kumar and V. K. Gali, "Echo State Network Control Based Power Quality Enhancement in Grid-Interactive Solar Photovoltaic System," in ***IEEE Transactions on Industry Applications (Early Access)*.**
2. V. Gali, P. K. Jamwal, N. Gupta, B. Chitti Babu, M. J. Ahmadi and **M. S. Morey**, "Grid-Interactive Novel Resilient Control of Solar PV-Wind-Battery Storage Microgrid Under Distorted and Unbalanced Grid Voltages," in ***IEEE Transactions on Consumer Electronics***, vol. 71, no. 1, pp. 1744-1757, Feb. 2025.
3. V. Gali, N. Gupta, M. J. Ahmadi, **M. S. Morey**, A. Kural and P. K. Jamwal, "Experimental investigation of adaptive multi-generalized integrator-based controller for electronically interfaced hybrid microgrid system", ***Renewable and Sustainable***

Energy Reviews (Elsevier), vol. 207, no. 114965, Jan. 2025, **(SCI) Impact Factor: 16.3**

4. N. Gupta, **M. Morey**, M. M. Garg, A. Kumar, "An Experimental Investigation of Variable-Step-Size Affine Projection Sign Based Algorithm for Power Quality Enhanced Grid-Interactive Solar PV System", ***Electric Power Systems Research (Elsevier),*** vol. 228, no. 110036, March 2024, **(SCI) Impact Factor: 3.33**
5. **M. Morey**, M. Golla, M. M. Garg, N. Gupta, A. Kumar, "A High Gain Z-source Boost DC–DC Converter with Common Ground for Solar PV Applications", ***Electric Power Systems Research (Elsevier),*** vol. 232, no. 110405, July 2024, **(SCI) Impact Factor: 3.33.**
6. **M. Morey.**, N. Gupta, M. M. Garg, M. Kumawat, "Modified Affine Projection Sign Algorithm for Power Quality Enhancement and Metaheuristic-based MPPT in Grid-Interactive Solar PV System: An Experimental Analysis," ***Electrical Engineering (Springer),*** July 2024, **(SCI), Impact Factor: 4.2.**
7. **M. Morey**, N. Gupta, M. M. Garg, A. Kumar, V. Gali, "Experimental Investigation of ANFIS-PSO MPPT Control with Enriched Voltage Gain DC-DC Converter for Grid-Tied PV Applications", ***Electrical Engineering (Springer),*** March 2024, **(SCI), Impact Factor: 4.2.**
8. **M. Morey**, Nitin Gupta, Man Mohan Garg, Ajay Kumar, "A Comprehensive Review of Grid-connected Solar Photovoltaic System: Architecture, Control, and Ancillary Services", ***Renewable Energy Focus (Elsevier),*** vol. 45, pp. 307-330, June 2023**, (ESCI).**

List of Papers Presented in International Conferences

1. **M. Morey**, N. Gupta, M. M. Garg, A. Kumar, V. Gali, "Echo State Network Control Based Power Quality Enhancement in Grid-Interactive Solar Photovoltaic System", in Proc. *of 2023 IEEE International Conference on Energy Technologies for Future Grids (IEEE ETFG 2023),* 3rd-6th December 2023, Wollongong, Australia, pp. 1-6, 2023.
2. **M. Morey**, N. Gupta, M. M. Garg and A. Kumar, "Performance Analysis of Grid Connected SPCS under Unbalanced Grid Voltage, Frequency Deviation and

Harmonics," in Proc. *of 2022 IEEE PES Innovative Smart Grid Technologies - Asia (ISGT Asia), Singapore,* 2022, 01st-05th November 2022, pp. 325-329, 2022.

3. **M. Morey**, M. Golla, N. Gupta and M. M. Garg, "PV Connected off-Grid 2-Stage Conversion System with Proposed High Gain Z-Source DC-DC Converter," in Proc. *of 2022 IEEE 19th India Council International Conference (INDICON),* 24th-26th November Kochi, Kerala, India, pp. 1-6, 2022.
4. **M. Morey**, M. Golla, N. Gupta, M. M. Garg and M. Kumawat, "Mathematical Modelling and Experimental Validation of a 6th order High Gain Z-source DC-DC Converter using ARM based Microcontroller," in Proc. *of 2022 IEEE 10th Power India International Conference (PIICON),* 25th – 27th November 2022, NIT Delhi, New Delhi, India, pp. 1-6, 2022.
5. **M. S. Morey** and V. B. Virulkar, "Rotor Flux MRAS Based Stator Resistance Estimator for Speed Sensorless Induction Motor Drives", *International Journal of Applied Engineering Research (IJAER) Volume 10, Number 17 (2015) Special Issues* pp. 13792-13798. *(Scopus Indexing)*
6. **M. S. Morey** and V. B. Virulkar, "Performance Analysis of Speed Estimator Insensitive to Stator Resistance at Low Speed in Sensorless Induction Motor Drives", *IEEE International Conference on Control, Communication and Computing 2015 (ICCC 2015) 19-21 Nov.2015 at COE Trivandrum Kerala.*
7. **M. S. Morey**, Dr. V. B. Virulkar, Dr. G. A. Dhomane, "MRAC Based Online Stator and Rotor Time Constant Estimation Scheme in Sensorless Field Oriented Controlled Induction Motor Drives", IEEE-International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT) –3rd-5th March 2016, D.M. I. College of Engineering, Chennai, Tamilnadu,India
8. **M. S. Morey** and V. B. Virulkar, "MRAS Based Speed and Online Tuning of Rotor Time Constant in Sensorless Field Oriented Controlled Induction Motor Drive", *IEEE International Conference on Emerging Trends in Electrical Electronics & Sustainable Energy Systems(ICETEESES)",11th-12th Mar.2016 at KNIT Sultanpur, UP, India*
9. **M. S. Morey**, V. B. Virulkar, G. A. Dhomane, "Performance Improvement of MRAS Based Speed Sensorless Field Oriented Controlled Induction Motor Drives at Low Speeds", 7th IEEE India International Conference on Power Electronics (IICPE2016), 17th-19th Nov.2016,Thapar University, Patiala, Punjab, India
10. **M. S. Morey**, V. B. Virulkar, "Rotor Flux Observer for Speed Sensorless IFOC Induction Motor at Low Speeds", 8th*International Conference on Power Electronics,*

Drives and Energy (PEDES-2018), 18th-21st December 2018 *Indian Institute of Technology Madras, Chennai, Tamilnadu,*

10. Membership of Professional Institutions/Organizations:

- IEEE Member-98590585
- Life Time Membership ISTE LM-67649
- Associate Member Institution of Engineers AM-100591-2

S.R No.	Faculty Programs/ Workshops/STTPs Attended in last 3 years
1	One week Short-term Course On "Real time Implementation of Power Electronics Converters in Grid Integration of Renewable Energy Sources" 8th–12th July, 2024, MNIT Jaipur
2	One week Short Term Course on "Control of Power Electronic Converters in Renewable and Transportation Applications" (CPRTA-2023) 28th Sep– 02nd Oct, 2023 organised by Department of Electrical Engineering, SVNIT, Surat
3	Three Days Worksop on " Power Train Design of Electric Vehicle" 20-22 July 2023 organised by IISc Bangalore
4	Five Day Short Term Course on "Electric Vehicle Technologies Based on Power Electronics and Drives" at IIT Delhi campus, 26th November 2019 - 30th November 2019
5	Five Days Short Term Course STC on "Power Electronic Converters in Grid Integration of Renewable Energy Sources " during 27 Dec. to 31 Dec., 2019 at MNIT Jaipur
6	Five days Faculty Training program at NIT Karnataka Surathkal, "Power Converter Design" during 7th -11th July 2018.