



Nibedita Swain, Ph.D.

Designation : Associate Professor

Department : Department of Electrical and Electronics Engineering
(JOINED THE INSTITUTE IN 2008)

Contact : 9861121775

Email : nswain@silicon.ac.in

RESEARCH INTERESTS

- ✓ Power Electronics
- ✓ Control
- ✓ Soft Computing
- ✓ Renewable Energy Sources
- ✓ EV design and Control

Academic Qualifications: PhD.

Teaching Experience/Industrial Experience/Research Experience

- ✓ Teaching Experience around 19 years
- ✓

PUBLICATIONS

JOURNAL ARTICLES & CONFERENCE PAPERS

1. Closed loop control of solar powered boost converter with PID controller L Mitra, N Swain, 2014 IEEE international conference on power electronics, drives and energy ...
2. Application of H^∞ controller to boost converter using model order reduction N Pati, N Swain, 2015 Annual IEEE India Conference (INDICON), 1-6
3. Design and study of speed control of DC motor using Youla parameterization and PID controller, N Pati, N Swain, 2017 IEEE Calcutta Conference (CALCON), 433-437

4. Application of PI and MPPT Controller to DC-DC Converter for Constant Voltage & Power Application, Nibedita Swain, Dr. C.K. Panigrahi IOSR Journal of Electrical and Electronics Engineering 11 (5), 8-15
5. Comparative performance analysis of dc-dc converter using PI controller and fuzzy logic controller, N Swain, CK Panigrahi, N Pati, 2016 IEEE 1st International Conference on Power Electronics, Intelligent ...
6. Comparative study of model reference adaptive control and H-infinity control to non-isolated boost converter, N Swain, N Pati, 2018 5th IEEE Uttar Pradesh section international conference on electrical ...
7. Design and analysis of step up regulator using exact feedback linearization by state feedback approach, N Swain, S Malik, N Pati, 2021 19th OITS International Conference on Information Technology (OCIT ...
8. Sliding Mode Controller-A Nonlinear Approach to Non-Isolated Cuk Converter for Constant Voltage Application, N Swain, SM Ali, CK Panigrahi, DP Kumar, 2018 2nd International Conference on Trends in Electronics and Informatics ...
9. Performance Comparison of P&O and Fuzzy Logic-Based MPPT Control Technique for Stand-Alone Photovoltaic System, N Swain, Emerging Electronics and Automation: Select Proceedings of E2A 2021, 149-160
10. Design of Linear and Nonlinear Controllers for a grid-connected PV system for constant voltage applications, N Swain, N Pati, Microgrid: Operation, Control, Monitoring and Protection, 149-179
11. Design of a 3-State Switching cell Converter using Hybrid Fuzzy PID and H-infinity Controller, N Swain, N Pati, B Panda, TENCON 2021-2021 IEEE Region 10 Conference (TENCON), 317-322
12. Application of Nonlinear and Optimal Control Techniques to High Gain DC-DC Converter, N Swain, Innovations in Electrical and Electronics Engineering: Proceedings of the ...
13. A Novel Approach for Implementing and Optimizing Proportional-Resonant Controller and L-C-L Filter for Single-Phase Grid-tie Inverter, N. Swain, International Journal of Mathematical, Engineering and Management Sciences Vol. 9, No. 3, 499-515, 2024

ANY OTHER

Book Chapter
Conferences attended