Nibedita Swain, Ph.D.

Designation : Sr. Asst. Professor

Department : Department of Electrical and Electronics Engineering

(JOINED THE INSTITUTE IN 2008)

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RESEARCH INTERESTS

Actively involved and interested in research topics in field of renewable energy sources and control application to power electronics. published seven international journals and seven ieee conference papers in field of control systems, power electronics and renewable energy sources.

Academic Qualifications

Ph. D. (Electrical Engineering), KIIT University, Odisha, India

M. Tech. (Power Electronics and Drives) KIIT University, Odisha, India

Specialization: Control Application to Power Electronics

Teaching Experience

- ✓ 16 years

PUBLICATIONS

JOURNAL& CONFERENCES

[1] **Nibedita Swain** , Prof. C. K. Panigrahi and Nivedita Pati, "Comparative Performance Analysis of dc-dc Converter using PI controller and fuzzy logic controller", International Conference on Power Electronics, Intelligent Control and Energy Systems ,ICPEICES-2016.

[2] **Nibedita Swain**, Prof. C. K. Panigrahi and Prof. S. M. Ali "Application of LQG regulator to improve the performance of dc-dc power Converter" International Journal of Control Theory and Application. IJCTA, 9(20)-2016, pp 175-184.

[3] **Nibedita Swain**, Prof. C. K. Panigrahi and Prof. S. M. Ali "Application of PI and MPPT controller to dc-dc converter for constant voltage

application", IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE), Vol.11, Issue-5. Sept-Oct 2016.

[4] **Nibedita Swain**, Prof. C. K. Panigrahi and Prof. S. M. Ali "Comparative study of lead compensator and PI controller for improvement of transient response in a reduced model dc- dc Converter" International Journal of Advanced information Science and Technology (IJAIST), Vol.-55,Issue-55.

[5] **Dr.Nibedita Swain,** 'A comparative study of adaptive feedback and feedforward controller scheme to boost converter' JOICS-2020, Volume 10 Issue 11 – 2020.

[6] **Dr. Nibedita Swain**, Application of Nonlinear and Optimal Control Techniques to High Gain DC–DC Converter, Springer Book Chapte-2020, ISBN 978-981-15-2256-7.

[7] **Nibedita Swain** and Nivedita Pati, Design of Linear and Non-linear Controllers for a Grid Connected PV system for Constant Voltage Applications, Springer Book Chapter, 625, https://doi.org/10.1007/978-981-15-1781-5_5.

[8] Nivedita Pati and **Nibedita Swain**, "Application of h-infinity controller to Boost Converter using Model Order Reduction Technique", Annual IEEE India Conference INDICON-2015.

[9] **Nibedita Swain** and Nivedita Pati, "Solar Powered Buck Converter with PID controller", International Journal of Advances in Electrical and Electronics Engineering, ISSN: 2319-1112 /V4-N3-ICAESM: 137-142 ©IJAEEE.

[10] Lopamudra Mitra and **Nibedita Swain** "Closed Loop Control of Solar Powered Boost Converter with PID Controller", IEEE International Conference on Power Electronics, Drives and Energy Systems,PEDES-2014.

[11] **Nibedita Swain**, Prof. C. K. Panigrahi and Prof. S. M. Ali, D. Praveen kumar "Sliding mode controller-A nonlinear approach to non-isolated Cuk converter for constant voltage application"ICOICE-2018.

Nivedita Pati , **Dr. Nibedita Swain**," Design of study of speed control of dc motor using youla parameterization" CALCON-2017.

[12] **Dr. Nibedita Swain**, Nivedita Pati," Comparative Study of Model Reference Adaptive Control and H-infinity control to Non-Isolated Boost Converter "UPCON-2018.

[13] **Dr. Nibedita Swain,** Robust controller application to PV fed CUK converter for constant voltage regulation ": A review" AECSS-2019

Dr Nibedita Swain, Sadhna Malik, Nivedita Pati," Design and Analysis of Step up Regulator using Exact Feedback Linearization by State Feedback Approach », ICIT-2021.

[14] **Dr Nibedita Swain**, Nivedita Pati, Babita Panda, « Design, Simulation and comparison of hybrid fuzzy logic controller and H-infinity controller for a three state switched capacitor converter », TENCON-2021.

[15] **Dr Nibedita Swain**, « Performance Comparison of P&O and Fuzzy Logic based MPPT Control Technique for Stand-alone Photovoltaic System », E2A-2021

ANY OTHER

Book Publication	Author of a book on **control system Engineering**
Reviewer in IEEE conference and Journal	

- ✓ 3-DOF Parallel Manipulator Control Using PID Controller (ICPEICES 2016)
- ✓ Comparison of Perturb & Observe and Ripple Correlation Control MPPT Algorithms for PV Array (ICPEICES 2016)
- ✓ Observer Based Adaptive PI Sliding Mode Controller for Cuk Converter, Instrumentation, Control, and Automation (ICA)
- ✓ Comparative Analysis Between SEPIC and CUK Converter for Power Factor Correction, ICIT-2019
- ✓ An Adaptive NSGA II for optimal insertion of distributed generators in radial distribution systems, ICIT-2019
- ✓ Comparative Analysis Between SEPIC and CUK Converter for Power Factor Correction, IJEEPS
- ✓ An Adaptive NSGA II for optimal insertion of distributed generators in radial distribution systems, IJEEPS
- ✓ Artificial Neural Network based Solar Radiation Estimation of Indian Cities, ASTESJ, 20M-05-258

Membership of
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