Nivedita Pati, Ph.D.

Designation : Sr. Asst. Professor

Department : Department of Electrical & Electronics Engg.

(JOINED THE INSTITUTE IN 2012)

Contact : + 918895533749 (M)

Email : nivedita.pati@silicon.ac.in,

niveditapati1981@gmail.com

RESEARCH INTERESTS

Control Systems and its applications
- ✓ Application of linear and non-linear controllers in power electronics
- ✓ Modern and classical control design for various converter topologies
- ✓ Control applications for Renewable Energy system.

Academic Qualifications

PhD,KIIT University,India

M. Tech (Electrical Engg.) NIT, RKL,India

Specialization: Control & Automation

Teaching Experience/ Industrial Experience/ Research Experience

- ✓ Worked as lecturer in PIET,Rourkela from Jan 2006 to Jan 2010
- ✓ Worked as Sr.lecturer in PIET,Rourkela from Jan 2010 to July 2012

PUBLICATIONS

JOURNAL& CONFERENCES

[1] **Nivedita Pati** ; Nibedita Swain," Design of study of speed control of dc motor using youla parameterization"2017 IEEE Calcutta Conference (CALCON) Year: 2017 Page s: 433 – 437

[2] Nibedita Swain,C.K. Panigrahi, **Nivedita Pati**, "Comparative Performance Analysis of dc-dc Converter using PI controller and fuzzy logic controller", 2016 IEEE 1st International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES),Year: 2016,Page s: 1 – 5.

[3] **Nivedita Pati**, Nibedita Swain, "Application of h-infinity controller to Boost Converter using Model Order Reduction Technique", 2015 Annual IEEE India Conference (INDICON),Year: 2015,Page s: 1 – 6

[4] **Nivedita Pati**," A comparitive study of youla and PID control algorithms for regulation of output voltage of Buck converter", 2014 IEEE 2nd International Conference on Electrical Energy Systems (ICEES)Year: 2014,Page s: 267 – 271.

[5] *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.

[6]] **Nivedita Pati**," Comparative Performance Analysis of Sliding Mode and Q-Controller Algorithms for Buck Converter", IOP Conf. Series: Materials Science and Engineering 225 (2017) 012135 doi:10.1088/1757-899X/225/1/012135.

[7] **Nivedita Pati**, "Performance Analysis of PV Fed Boost Converter Using a Linear and Non-linear Control Approach: PI and Sliding Mode Control", IEEE International conference on recent innovations in electrical, electronics & communication engineering - (ICRIEECE),2018.

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

[9]Babita Panda, **Nivedita pati**, Bhagabat Panda," Hardware implementation of PV Z source inverter using maximum boost control method", 3rd International Conference on Smart Computing and Informatics, Springer,Nov 2019

[10]**Nivedita Pati**, B.Panda, Bhagbat Panda," Stability analysis of photovoltaic cell under grid faults", International Journal of power electronics and drives systems(IJPEDS), Vol. 11,No.2,pp 931-941.

[11] **Nivedita Pati** , Babita Panda, Bhagabat Panda," Sensitivity Analysis of PI And Youla Controller For A PV Fed Boost Converter", International Conference on Advances in Electrical Control and Signal Systems,July 2020.

[12]N. Swain, **N. Pati** and B. Panda, "Design of a 3-State Switching cell Converter using Hybrid Fuzzy PID and H-infinity Controller," TENCON 2021 - 2021 IEEE Region 10 Conference (TENCON), Auckland, New Zealand, 2021, pp. 317-322, doi: 10.1109/TENCON54134.2021.9707345.

[13] N. Swain, S. Malik and **N. Pati**, "Design and Analysis of Step up Regulator using Exact Feedback Linearization by State Feedback Approach," 2021 19th OITS International Conference on Information Technology (OCIT), Bhubaneswar, India, 2021, pp. 443-447, doi: 10.1109/OCIT53463.2021.00092.

[14]**Pati.N** ,Panda.B," Control and Regulation of the Conversion Phase of a Double-Stage Grid Connected PV System: H$_\infty$ and Voltage Sliding Mode Control", *J. Electr. Eng. Technol.* **16**, 2731–2742 (2021), DOI:https://doi.org/10.1007/s42835-021-00761-1

[15] **Pati, Nivedita** and Panda, Babita, "Three-state switching cell boost converter using H-inf controller" *International Journal of Emerging Electric Power Systems*, vol. 22, no. 6, 2021, pp. 745-752.

BOOK CHAPTERS	[1]Nibedita Swain, **Nivedita Pati,**" Design of linear and non linear controllers for grid connected PV system for constant voltage application", Microgrid: Operation, Control , Monitoring and Protection, Springer, Chapter 5, pp. 149-179,Jan 2020

ANYOTHER

Membership of Professional Societies	√ IEEE √ ISTE √ IEI