Ms. Sadhna Malik

Designation : Assistant Professor

Department : Department of Electrical & Electronics Engineering

(JOINED THE INSTITUTE IN 2015)

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RESEARCH INTERESTS

- ✓ Intelligent control
- ✓ Soft computing techniques
- ✓ Nonlinear control
- ✓ Application of optimization techniques to control systems

Academic Qualifications

- ✓ PhD (ongoing) in Electrical Engineering, IIT Kharagpur, India
- ✓ M. E. in Control Systems (EEE), Birla Institute of Technology, Mesra, India
- ✓ B. Tech. (Electrical & Electronics Engineering), Biju Patnaik University of Technology, Odisha, India

Teaching Experience/Industrial Experience/Research Experience

- ✓ August 2015-present
  Assistant Professor,
  Department of Electrical & Electronics Engineering
  Silicon Institute of technology

PUBLICATIONS

JOURNAL ARTICLES

[1] **S. Malik** and B. M. Mohan, Nonuniqueness of mathematical models of the simplest three-input Mamdani fuzzy proportional-integral-derivative controllers. International Journal of Systems Science, pp. 1-13, 2025.

[2] **S. Malik** and B. M. Mohan, Development and experimental validation of analytical structures of some simplest fuzzy PI/PD controllers using Bounded Sum aggregation, Journal of the Franklin Institute, Volume 361, Issue 15, 107098, 2024.

Conferences attended

[1] **S. Malik** and B. M. Mohan, A Note on the Simplest Mamdani Fuzzy Two-Term (PI/PD) Controllers, 10th International Conference on Control, Decision and Information Technologies, Valletta, Malta, pp. 2072-2077, 2024.

[2] **S. Malik** and B. M. Mohan, Analytical Structures of Some Simplest Fuzzy PD Controllers using Bounded Sum Aggregation, IFAC-PapersOnLine, Volume 57, pp. 274-279, 2024.

[3] N. Swain, **S. Malik**, N. Pati, Design and Analysis of Step up Regulator using Exact Feedback Linearization by State Feedback Approach, 19th OITS International Conference on Information Technology, Bhubaneswar, India, pp. 443-447, 2021.

[4] N. Swain, **S. Malik**, G. R. Biswal, Robust controller Application to PV fed CUK converter for constant voltage regulation: A review, Advances in Electrical Control and Signal Systems, pp 167-181, LNEE, volume 665, 2020.

[5] **S. Malik** and S. K. Mishra, Optimal design of Fuzzy PID controller for Inverted Pendulum system, Artificial Intelligence and Evolutionary Computations in Engineering Systems, pp 1297-1307, AISC, volume 394, International Conference on Communication, Computing and Power Technologies, Chennai, India, 2015.