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Adaptive Control Cyber Physical Systems Multi-Agent Systems Intelligent Control

Summary:

International Journals: Published/Accepted – 48

International Conferences: 43

National Conferences: 3

Book: 1 (**International: Springer**)

Book chapter: 7

Citation: 3131 (h-index: 28, i-10 index: 48) [Google Scholar]

[<https://scholar.google.co.in/citations?user=GmiruH0AAAAAJ&hl=en>]

Scopus id: 56567683700

Citation: 2279 (h-index: 24) [**Scopus**]

IEEE	06	Elsevier	15	Wiley	07	Inderscience	06
IET	04	Springer	04	Taylor and Francis	03	IGI Global	02
MDPI	01						

Placed in the “World Ranking of top 2% Scientists” released by Stanford University in last four consecutive years 2022, 2023, 2024, & 2025.

Thrust Area of Research:

- Cyber-Physical Systems and Resilience.
- Multi-Agent Systems and Cooperative Control.
- Nonlinear Control.
- Artificial Intelligence and Soft Computing.

International Book

1. **D. Guha**, P.K. Roy, S. Banerjee, S. Purwar, *Application of Intelligent Control Algorithms to Study the Dynamics of Hybrid Power System*, Studies in Systems, Decision and Control, Springer Verlag, Singapore, ISBN 978-981-19-0443-1.

International Journals

1. A.K. Chaudhary, **D. Guha**, and R. Negi, Dynamic Event-triggered Recurrent Neural Network Framework for Synchronized Frequency Control of Delayed Power System, Journal of the Franklin Institute, *Elsevier (SCI Journal with Impact Factor-3.7)*, Accepted on August 5, 2026 **[Q1 Journal]**.
2. S. Chaudhary, V. Gupta, **D. Guha**, and K. Reddy, Reinforcement Learning for Predefined-time Optimal Tracking Control of Robot Manipulator, Optimal Control Applications and Methods, *Wiley (SCI Journal with Impact Factor-2.1)*, Accepted on July 8, 2026 **[Q2 Journal]**.
3. **D. Guha**, Fuzzy Neural Network-assisted Super-twisting Fractional-Order Terminal Sliding Mode Frequency Control of Cyber-Physical Power System, *Int. J of Robust and Nonlinear Control*, Wiley (*SCI Journal with Impact Factor-3.2*), Accepted on April 14, 2026 **[Q1 Journal]**.
4. A. Anand, **D. Guha**, S. Purwar, and S. Banerjee, Predefined-time Tracking Consensus Control of Cyber-physical Multi-Agent System under DoS/Deception Attacks using Event-Triggered Switching Topology, *IEEE Trans. on Industry Applications*, *IEEE (SCI Journal with Impact Factor-4.5)*, Accepted on March 15, 2026 **[Q1 Journal]**.



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5. A.K. Chaudhary, **D. Guha**, R. Negi, and S. Banerjee, Dynamic Event-triggered RBFNN-enabled Resilient Control of Cyber Physical Systems under Sensor/Actuator Deception and DoS attacks, **IEEE Trans. on Industry Applications, IEEE (SCI Journal with Impact Factor-4.5)**, Accepted on March 8, 2026 **[Q1 Journal]**.
6. A. Anand, **D. Guha**, and S. Purwar, Observer-aided Adaptive Consensus Control of Cyber-physical Multi-Agent Systems with Hybrid Attacked Topology, **IEEE Trans. on Automation Science and Engineering, IEEE (SCI Journal with Impact Factor-6.4)**, vol. 23, pp. 5250-5261, 2026 **[Q1 Journal]**.
7. **D. Guha**, R. Maiti, S. Banerjee and R. Negi, Fractional-Order Finite-Time Control of Cyber-Physical Power System with Time-Delayed Switching and Distributed DoS Attacks Using RBF-Neural Network, **IEEE Trans. on Consumer Electronics, IEEE (SCI Journal with Impact Factor-10.9)**, vol. 71, no. 4, pp. 9221-9233, Nov. 2025 **[Q1 Journal]**.
8. S. Roy, A.K. Chaudhary, **D. Guha**, and R. Negi, Adaptive Event-triggered Finite-time Control of Affine Cyber-Physical System under Denial-of-Service (DoS) and Deception Attacks, International Journal of Robust and Nonlinear Control, **Wiley (SCI Journal with Impact Factor-3.2)**, Accepted on Jan. 12, 2025) **[Q1 Journal]**.
9. K. Reddy, R. Sarma, and **D. Guha**, Performance Analysis of Advanced Metaheuristics for Optimal Design of Multi-Objective Model Predictive Control of Doubly Fed Induction Generator, Process, **MDPI (SCI Journal with Impact Factor-2.8)**, vol. 2025, 13, 221, 2025 **[Q2 Journal]**.
10. A. Anand, **D. Guha**, and S. Purwar, Adaptive Consensus Control of Leader-Follower Multi-Agent System with Actuator Deception Attacks, Chaos, Solitons and Fractals, **Elsevier (SCI Journal with Impact Factor- 5.3)**, vol. 187, 115344, October 2024. **[Q1 Journal]**.
11. A.K. Chaudhary, S. Roy, **D. Guha**, et al., Adaptive Cyber-tolerant Finite-time Frequency Control Framework for Renewable-integrated Power System under Deception and Periodic Denial-of-Service Attacks, Energy, **Elsevier (SCI Journal with Impact Factor- 9)**, Vol. 302, Sep 2024, 131809, doi:10.1016/j.energy.2024.131809 **[Q1 Journal]**.
12. **D. Guha**, Fuzzy-aided Finite-time Frequency Controller of Renewable-integrated Power Systems with Hydrogen Energy Storage, Engineering Applications of Artificial Intelligence, **Elsevier (SCI Journal with Impact Factor- 8)**, Vol. 126 (Part-A), 106814, Nov. 2023. doi: 10.1016/j.engappai.2023.106814 **[Q1 Journal]**.
13. **D. Guha**, P.K. Roy, and S. Banerjee, Improved Fractional-order Sliding Mode Controller for Frequency Regulation of a Hybrid Power System with Nonlinear Disturbance Observer, IEEE Transactions on Industry Applications, **IEEE (SCI Journal with Impact Factor- 4.4)**, vol. 59, no. 4, pp. 4964-4979, July-Aug. 2023, doi: 10.1109/TIA.2023.3268150 **[Q1 Journal]**.
14. **D. Guha**, Non-integer disturbance observer-aided resilient frequency controller applied to hybrid power system, Chaos, Solitons and Fractals, **Elsevier (SCI Journal with Impact Factor- 7.8)**, vol. 170, 113421, May 2023, doi: 10.1016/j.chaos.2023.113421 **[Q1 Journal]**.



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15. **D. Guha**, P.K. Roy, and S. Banerjee, *Frequency Control of a Wind-diesel-generator Hybrid System with Squirrel Search Algorithm Tuned Robust Cascade Fractional Order Controller Having Disturbance Observer Integrated*, *Electric Power Components and Systems*, **Taylor and Francis (SCI Journal with Impact Factor-1.59)**, vol. 50(14-15), pp. 814-839, 2022, doi: 10.1080/15325008.2022.2141925 [In Press] **[Q4 Journal]**.
 16. **D. Guha**, P.K. Roy, and S. Banerjee, *Adaptive fractional-order sliding-mode disturbance observer-based robust theoretical frequency controller applied to hybrid wind-diesel power system*, *ISA Transaction*, **Elsevier (SCI Journal with Impact Factor-5.468)**, vol. 133, pp. 160-183, Feb 2023, doi: 10.1016/j.isatra.2022.06.030 **[Q1 Journal]**.
 17. V. Patel, **D. Guha**, and S. Purwar, *Frequency Regulation of Nonlinear Power Systems using Neural Network Observer-based Optimized Resilient Controller*, *International Transactions on Electrical Energy Systems*, **Wiley (SCI Journal with Impact Factor-1.692)**, vol. 35, Issue 5, Sep/Oct 2023, doi: 10.1002/jnm.3025 **[Q3 Journal]**.
 18. V. Patel, **D. Guha**, and S. Purwar, *Optimized cascade fractional-order 3DOF-controller for frequency regulation of a hybrid power system using marine predators algorithm*, *International Journal of Numerical Modelling: Electronic Networks, Devices And Fields*, **Wiley (SCI Journal with Impact Factor-1.296)**, vol. 2022, 6286500, doi: 10.1155/2022/6286500 **[Q3 Journal]**.
 19. V. Patel, **D. Guha**, and S. Purwar, *Neural Network aided Fractional-Order Sliding Mode Controller for Frequency Regulation of Nonlinear Power Systems*, *Computers and Electrical Engineering*, **Elsevier (SCI Journal with Impact Factor-3.818)**, Vol. 96, Part-A, December 2021, 107534, doi: 10.1016/j.compeleceng.2021.107534 **[Q2 Journal]**.
 20. **D. Guha**, P.K. Roy, and S. Banerjee, *Observer-aided resilient hybrid fractional-order controller for frequency regulation of hybrid power system*, *International Transactions on Electrical Energy Systems*, **Wiley (SCI Journal with Impact Factor- 1.692)**, Vol. 31, Issue 9, September 2021, doi: 10.1002/2050-7038.13014 **[Q3 Journal]**.
 21. **D. Guha**, P.K. Roy, and S. Banerjee, *Performance evolution of different controllers for frequency regulation of a hybrid energy power system employing chaotic crow search algorithm*, *ISA Transaction*, **Elsevier (SCI Journal with Impact Factor-4.305)**, Vol. 120, January 2022, pp. 128-146, doi: 10.1016/j.isatra.2021.03.017 **[Q1 Journal]**.
 22. **D. Guha**, P.K. Roy, and S. Banerjee, *Equilibrium optimizer tuned cascade fractional-order 3DOF-PID controller in load frequency control of power system having renewable energy resource integrated*, *International Transactions on Electrical Energy Systems*, **Wiley (SCI Journal with Impact Factor- 1.692)**, Vol. 31, Issue 1, January 2021, e12702, doi: 10.1002/2050-7038.12702 **[Q3 Journal]**.
 23. **D. Guha**, P.K. Roy, and S. Banerjee, *Disturbance observer aided optimised fractional-order three-degree-of-freedom tilt-integral-derivative controller for load frequency control of power systems*, *IET Generation, Transmission and Distribution*, **IET (SCI Journal with Impact Factor- 2.862)**, Vol. 15, Issue 4, February 2021, pp. 716-736, doi: 10.1049/gtd2.12054 **[Q3 Journal]**.
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Journal].

24. **D. Guha**, P.K. Roy, S. Banerjee, S. Padmanaban, F. Blaabjerg, and D. Chittathuru, *Small-signal stability analysis of hybrid power system with quasi-oppositional sine cosine algorithm optimized fractional order PID controller*, IEEE Access, **IEEE (SCI Journal with Impact Factor- 3.745)**, Vol. 8, August 2020, pp. 155971-155986, doi: 10.1109/ACCESS.2020.3018620 **[Q2 Journal]**.
 25. **D. Guha**, P.K. Roy, and S. Banerjee, *Maiden application of SSA-optimised CC-TID controller for load frequency control of power systems*, IET Generation, Transmission and Distribution, **IET (SCI Journal with Impact Factor- 3.229)**, Vol. 13(7), April 2019, pp. 1110-1120, doi: 10.1049/iet-gtd.2018.6100 **[Q3 Journal]**.
 26. **D. Guha**, P.K. Roy, and S. Banerjee, *Multi Verse Optimization: a novel method for solution of load frequency control problem in power system*, IET Generation, Transmission and Distribution, **IET (SCI Journal with Impact Factor- 3.229)**, Vol. 11(4), September 2017, pp. 3601-3611, doi: 10.1049/iet-gtd.2017.0296 **[Q3 Journal]**.
 27. **D. Guha**, P.K. Roy, and S. Banerjee, *Optimal tuning of 3 degree-of-freedom proportional-integral-derivative controller for hybrid distributed power system using dragonfly algorithm*, Computers & Electrical Engineering, **Elsevier (SCI with Impact Factor-2.663)**, Vol. 72, November 2018, pp. 137-153, doi:10.1016/j.compeleceng.2018.09.003 **[Q2 Journal]**.
 28. **D. Guha**, P.K. Roy, and S. Banerjee, *Load frequency control of interconnected power system using grey wolf optimization*, Swarm and Evolutionary Computation, **Elsevier (SCI with Impact Factor-6.912)**, Vol. 27, April 2016, pp. 97-115, doi:10.1016/j.swevo.2015.10.004 **[Q1 Journal]**.
 29. **D. Guha**, P.K. Roy, and S. Banerjee, *Quasi-oppositional symbiotic organism search algorithm applied to load frequency control*, Swarm and Evolutionary Computation, **Elsevier (SCI with Impact Factor-6.912)**, Vol. 33, April 2017, pp. 46-67, doi: 10.1016/j.swevo.2016.10.001 **[Q1 Journal]**.
 30. **D. Guha**, P.K. Roy, and S. Banerjee, *Study of Differential Search Algorithm based Automatic Generation Control of an Interconnected Thermal-Thermal System with Governor Dead Band*, Applied Soft Computing, **Elsevier (SCI with Impact Factor-5.472)**, Vol. 52, March 2017, pp. 160-175, doi: 10.1016/j.asoc.2016.12.012 **[Q1 Journal]**.
 31. **D. Guha**, P.K. Roy, and S. Banerjee, *Binary bat algorithm applied to solve MISO type PID-SSSC based load frequency control problem*, Iranian Journal of Science and Technology, Transactions of Electrical Engineering, **Springer (SCI Journal with Impact Factor-0.657)** Vol. 43, July 2018, pp. 323-342, doi: 10.1007/s40998-018-0106-0 **[Q3 Journal]**.
 32. **D. Guha**, P.K. Roy, and S. Banerjee, *Application of backtracking search algorithm in load frequency control of multi-area interconnected power system*, Ain Shams Engineering Journal, **Elsevier (SCI Journal with Impact Factor-1.949)**, Vol. 9(2), June 2018, pp. 257-276, doi: 10.1016/j.asej.2016.01.004 **[Q1 Journal]**.
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33. **D. Guha**, P.K. Roy, and S. Banerjee, *Quasi-oppositional Backtracking Search Algorithm to Solve Load Frequency Control Problem of Interconnected Power System*, Iranian Journal of Science and Technology, Transactions of Electrical Engineering, **Springer (SCI Journal with Impact Factor-0.657)**, Vol. 44, August 2019, pp. 781-804, doi: 10.1007/s40998-019-00260-0 [Q3 Journal].
 34. **D. Guha**, P.K. Roy, and S. Banerjee, *Quasi-oppositional differential search algorithm applied to load frequency control*, Engineering Science and Technology, an International Journal, **Elsevier (SCI Journal with Impact Factor-5.7)**, Vol. 19, Issue 4, December 2016, pp. 1635-1654, doi: 10.1016/j.jestch.2016.09.021.
 35. **D. Guha**, P.K. Roy, and S. Banerjee, *Load frequency control of large scale power system using quasi-oppositional grey wolf optimization algorithm*, Engineering Science and Technology, an International Journal, **Elsevier (SCI Journal with Impact Factor-5.7)**, Vol. 19, Issue 4, December 2016, pp. 1693-1713, doi: 10.1016/j.jestch.2016.07.004.
 36. A. Anand, **D. Guha**, and S. Purwar, *Distributed Neuro-Adaptive Cooperative Consensus Control of Leader-Follower Multi-Agent System with unknown Disturbances*, Int. J. of Automation and Control, **Inderscience (Scopus)**, **Accepted** on May 15, 2026.
 37. A. Tiwary, S. Chaudhary, **D. Guha**, and R. Maiti, *Disturbance Observer-based Robust Control of Twin-Rotor MIMO System with Mismatched Uncertainties*, Int. J. of Automation and Control, **Inderscience (Scopus)** [In Press].
 38. V. Patel, **D. Guha**, and S. Purwar, *Frequency Regulation of Time-delayed Power System utilizing Nonlinear Resilient Controller*, Int. J. of Automation and Control, **Inderscience (Scopus)**, vol. 18(1), pp. 87-109, Nov. 2023, doi: 10.1504/IJAAC.2024.135096.
 39. V. Patel, **D. Guha**, and S. Purwar, *Disturbance Observer-based Higher-order Sliding Mode Controller for Frequency Regulation of Hybrid Power Systems*, Int. J. of Automation and Control, **Inderscience (Scopus)**, Vol. 17(2), January 2023, pp. 188-226, doi: 10.1504/IJAAC.2023.129387
 40. **D. Guha**, P.K. Roy, and S. Banerjee, *Quasi-oppositional Jaya Optimized 2-degree-of-freedom PID Controller for Load Frequency Control of Interconnected Power Systems*, International Journal of Modelling and Simulation, **Taylor and Francis (Scopus)**, Vol. 42(1), October 2020, pp. 63-85, doi: 10.1080/02286203.2020.1829444.
 41. **D. Guha**, P.K. Roy, and S. Banerjee, *Whale optimization algorithm applied to load frequency control of a mixed power system considering nonlinearities and PLL dynamics*, Energy System, **Springer (Scopus)**, Vol. 11, February 2019, pp. 699-728, doi: 10.1007/s12667-019-00326-2.
 42. **D. Guha**, P.K. Roy, and S. Banerjee, *Grasshopper optimization algorithm scaled fractional order PI-D controller applied to reduced order model of load frequency control system*, International Journal of Modeling and Simulation, **Taylor and Francis (Scopus)**, Vol. 40(3), March 2019, pp. 217-242, doi: 10.1080/02286203.2019.1596727.
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43. **D. Guha**, P.K. Roy, and S. Banerjee, *Symbiotic Organism Search Algorithm Applied to Load Frequency Control of Multi-area Power System, Energy System*, **Springer (Scopus)**, Vol. 9, May 2018, pp. 439-468, doi: 10.1007/s12667-017-0232-1.
44. **D. Guha**, P.K. Roy, and S. Banerjee, *Oppositional biogeography-based optimization applied to SMES and TCSC-based load frequency control with generation rate constraints and time delay*, International Journal of Power and Energy Conversion, **Inderscience (Scopus)**, Vol. 7, Issue 4, Jan 2016, pp. 391-23, doi: 10.1504/IJPEC.2016.10000395.
45. **D. Guha**, P.K. Roy, and S. Banerjee, *Solutions of UPFC based Load Frequency Control using Quasi-Oppositional Biogeography Based Optimization Considering Various Nonlinearities of Power System*, International Journal of Power and Energy Conversion, **Inderscience (Scopus)**, Vol. 9, Issue 2, March 2018, pp. 105-143, doi: 10.1504/IJPEC.2018.090674.
46. **D. Guha**, P.K. Roy, and S. Banerjee, *Application of Modified Biogeography Based Optimization in AGC of an Interconnected Multi-Unit Multi-Source AC-DC Linked Power System*, International Journal of Energy Optimization and Engineering, **IGI Global**, Vol. 5, Issue 3, 2016, pp. 1-18, doi: 10.4018/IJEOE.2016070101.
47. **D. Guha**, P.K. Roy, and S. Banerjee, *Grey Wolf Optimization to Solve Load Frequency Control of an Interconnected Power System*, International Journal of Energy Optimization and Engineering, **IGI Global**, Vol. 5, Issue 4, 2016, pp. 62-83, doi: 10.1016/j.swevo.2015.10.004.
48. **D. Guha**, P.K. Roy, and S. Banerjee, *Krill herd algorithm for automatic generation control with flexible AC transmission system controller including superconducting magnetic energy storage units*, The Journal of Engineering, **IET**, Vol. 2016, Issue 5, May 2016, pp. 147-161, doi: 10.1049/joe.2016.0053.

Book Chapters

1. **D. Guha**, P.K. Roy, and S. Banerjee, *Robust optimization algorithms for solving automatic generation control of multi-constrained power system*, Handbook of Research on Power and Energy System Optimization, **IGI-Global**, Chapter 3, 2018, pp. 75-114, doi: 10.4018/978-1-5225-3935-3.ch003. [Scopus Indexed]
2. **D. Guha**, P.K. Roy, and S. Banerjee, *Dynamic and Stability Analysis of Wind-Diesel-Generator (WDG) with Robust and Intelligent Computation Control Algorithm*, Handbook of Research on Smart Power System Operation and Control, **IGI-Global**, Chapter 3, 2019, pp. 56-95, doi: 10.4018/978-1-5225-8030-0.ch003. [Scopus Indexed]
3. V. Patel, **D. Guha**, and S. Purwar, *Minimum order disturbance observer-aided integral sliding mode controller for frequency regulation of hybrid power system*, Control of Standalone Microgrid (ISBN 9780128230220), **Academic Press (Elsevier)**, Chapter 12, 2021, pp. 277-296, doi: 10.1016/B978-0-12-823022-0.00009-X.
4. V. Patel, D. Guha, and S. Purwar, *Disturbance observer-aided adaptive sliding mode controller*



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for frequency regulation in hybrid power system, *Microgrids: Modeling, Control, and Applications* (ISBN 9780323854634), Academic Press (Elsevier), Chapter 2, 2022, pp. 43-66, doi:10.1016/B978-0-323-85463-4.00001-0.

5. **D. Guha** and S. Saringi, *Nonlinear resilient frequency controller for hybrid interconnected power system*, *Advanced Frequency Regulation Strategies in Renewable-Dominated Modern Power Systems (AFRGRPS-2021)*, **Academic Press (Elsevier)**, Chapter 4, 2023, pp. 61-91, doi: 10.1016/B978-0-323-95054-1.00014-7.
6. A. Anand, **D. Guha** and S. Purwar, *Distributed Adaptive Fault-tolerant Consensus Control of Multi-agent Systems with Deception attacks*, *Enhancing the Control of Systems and Devices: Improving Performance, Reliability and Adaptability in Dynamic Environments*, **Academic Press (Elsevier – In Press)**.
7. **D. Guha**, *Neural Network-observer based Adaptive Finite-time Frequency Control of Cyber-physical Power Systems*, *Enhancing the Control of Systems and Devices: Improving Performance, Reliability and Adaptability in Dynamic Environments*, **Academic Press (Elsevier – In Press)**.

International Conferences [43]

1. A. Narayan, A. Anand, **D. Guha**, and S. Purwar, Adaptive Backstepping Consensus Control for Multi-Agent Systems, Presented for possible inclusion in the Proc. of SeFeT 2026, July 8-11, 2026, Department of Electrical Engineering, VNIT Nagpur, India.
2. V. Gupta, A. K. Chaudhary, **D. Guha** and R. Negi, Recurrent Neural Network-enabled Cyber-tolerant Resilient Control of Nonlinear System, in Proc. of 2026 4th Odisha Int. Conf. on Electrical Power Engineering, Communication and Computing Technology (**ODICON-2026**), **Feb. 20-21, 2026**, ITER, SOA Deemed to be University, Bhubaneswar, Odisha, India.
3. V. Singh, M. Gautam, R. Negi and **D. Guha**, Consensus Control of Multi-Agent System using Backstepping Control, in Proc. of 2026 4th Odisha Int. Conf. on Electrical Power Engineering, Communication and Computing Technology (**ODICON-2026**), **Feb. 20-21, 2026**, ITER, SOA Deemed to be University, Bhubaneswar, Odisha, India.
4. A. Narayan, A. Anand, D. Guha and S. Purwar, Consensus Control of Multi-Agent System using Backstepping Control, in Proc. of 2026 4th Odisha Int. Conf. on Electrical Power Engineering, Communication and Computing Technology (**ODICON-2026**), **Feb. 20-21, 2026**, ITER, SOA Deemed to be University, Bhubaneswar, Odisha, India.
5. V. Gupta, S. Chaudhary and **D. Guha**, Dynamic Event-triggered Adaptive Backstepping Control for a 2-DOF Robot Manipulator, in Proc. of in 5th IEEE Int. Conf. on Power, Control, and Computing Technologies (**ICPC²T 2026**), NIT Raipur, **March 11-13, 2026**.
6. S. Chaudhary, V. Gupta and **D. Guha**, Backstepping Controller for Robot Manipulator using



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Actor-Critic Reinforcement Learning, in Proc. of in 2025 International Conference on Power Electronics & Energy (ICPEE 2025), **KIIT Bhubaneswar, Dec. 14-16, 2025.**

7. A. Yadav, **D. Guha** and R. Negi, Data-driven Control of Discrete-time System with Dynamic Event-triggered Strategy, in Proc. of in 2025 International Conference on Power Electronics & Energy (ICPEE 2025), **KIIT Bhubaneswar, Dec. 14-16, 2025.**
8. **D. Guha**, Fuzzy-assisted Nonlinear Resilient Frequency Control of Network Power System with DoS/Deception attacks, In Proc. of **IEEE 5th International Conference on Sustainable Energy and Future Electric Transportation (SEFET)**, Jaipur, India, **July 9-12 2025**, pp. 1-5.
9. P. Kumar, A. Anand, **D. Guha** and S. Purwar, Predefined Time Consensus Control for Multi-Agent Systems, In Proc. of **2025 IEEE 5th International Conference on Sustainable Energy and Future Electric Transportation (SEFET)**, Jaipur, India, **2025**, pp. 1-6.
10. A. Yadav, **D. Guha** and R. Negi, Data Driven Control of Nonlinear System with Noisy Measurements, In Proc. of Int. Conf. on Recent Innovations and Trends in Electrical & Electronics Engineering and Computing, NIT Patna.
11. P. Kumar, A. Anand, **D. Guha**, and S. Purwar, Leader-Follower Consensus Control of Multi-Agent Systems with Disturbance by Distributed Sliding Mode Control, In Proc. of **2025 IEEE 1st Int. Conf. on Smart and Sustainable Developments in Electrical Engineering (SSDEE-2025)**, Feb 28 - March 2, 2025, IIT(ISM) Dhanbad, pp. 1-6.
12. P. Kumar, A. Anand, **D. Guha**, and S. Purwar, Second-Order Consensus in Heterogeneous Multi-Agent Systems by Distributed Sliding Mode Control, **Accepted** in **1st Int. Conf. on Sustainable Energy Technologies and Computational Intelligence (SETCOM 2025)**, February 21 – 23, 2025, Pandit Deendayal Energy University (PDEU), Gandhinagar, India.
13. S. Chaudhary, **D. Guha**, and R. Maiti, Backstepping-enabled Fixed-time Terminal Sliding Mode Control of Robot Manipulators, **Accepted** in Fourth Int. Conf. on Power, Control, and Computing Technologies (ICPC²T), January 20-22, 2025, NIT Raipur, Chhattisgarh, India.
14. S. Kumar, B. Dash, R. Maiti, and **D. Guha**, Adaptive Fuzzy Predictor based Fast Terminal Sliding Mode Controller Design for Two-link Robot Manipulator, **Accepted** in 2024 Tenth **Indian Control Conference (ICC)**, December 9-11, 2024, IISER Bhopal.
15. S. Roy and **D. Guha**, Finite-time Controller of Cyber-Physical Affine System with Mismatched Uncertainty, In Proc. of 2024 IEEE 4th International Conference on **Sustainable Energy and Future Electric Transportation (IEEE SeFeT 2024)**, 31 July - 03 August, 2024.
16. A. Anand, **D. Guha**, and S. Purwar, Cooperative Formation Control of the Multi-Agent System, In Proc. of 2024 IEEE 4th International Conference on **Sustainable Energy and Future Electric Transportation (IEEE SeFeT 2024)**, 31 July - 03 August, 2024.
17. S. Priyadarshi and **D. Guha**, Robust Tracking Controller of Nonlinear Twin Rotor MIMO System



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with Mismatched Uncertainties, In Proc. 2024 IEEE Students Conference on Engineering and Systems (SCES), June 21-23, 2024, Prayagraj, India, June 21-23, 2024.

18. A. Maurya and **D. Guha**, Design of Non-linear Sliding Mode Controller for Magnetic Levitation System, In Proc. in 2024 IEEE Students Conference on Engineering and Systems (SCES), June 21-23, 2024, Prayagraj, India, June 21-23, 2024.
 19. **D. Guha**, P.K. Roy, and S. Banerjee, Fractional-Order Cyber-tolerant Frequency Controller for Renewables-integrated Power System, In Proc. of 3rd IEEE International Conference on Smart Technologies for Power, Energy and Control (STPEC), KIIT University, Bhubneswar, Odisha, 10-13 December 2023.
 20. **D. Guha**, Cyber-tolerant Resilient Frequency Control for Microgrid with Mismatched Uncertainties and Stealthy FDI-attack, In Proc. of 2023 IEEE 3rd International Conference on Sustainable Energy and Future Electric Transportation (SeFeT), S'O'A University, Bhubneswar, Odisha, 09-12 August 2023.
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