

Resume

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Date of Birth : 26.01.1997
Gender : Female
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Educational Qualification

Degree	Period	Subject	Institution
Ph.D.	2021-2024	Mathematics	Bharathiar University
M.Phil.	2019-2021	Mathematics	Bharathiar University
M.Sc.	2017-2019	Mathematics	PSG College of Arts and Science- Bharathiar University
B.Sc.	2014-2017	Mathematics	PSGR Krishnammal College for Women-Bharathiar University

Ph.D. Thesis Details

- **Title of Thesis:** Robust Stabilization of Takagi-Sugeno Fuzzy Model-based Chaotic Semi-Markov Jump Systems
- **Ph.D. Supervisor:** Dr. R. Sakthivel
Professor and Head
Department of Applied Mathematics
Bharathiar University
Coimbatore – 641021, India

Area of Interest

- Systems and Control Theory
- Stabilization Problems
- Nonlinear Control Systems
- Finite-time Analysis

- Disturbance Estimation Problems

Paper Presentations

International Conferences: 4

Research Publications

S. No	Title of the paper	Name of Authors	Journal Name, Volume (Year), Page No.	Indexing	Impact Factor
1.	Anti-disturbance observer-based control for fuzzy chaotic semi-Markov jump systems with multiple disturbances and mixed actuator failures	R. Abinandhitha, R. Sakthivel, N. Tatar and R. Manikandan	Chaos, Solitons & Fractals, 164 (2022) 112679	SCIE	5.3
2.	Proportional integral observer-based input-output finite-time stabilization for chaotic semi-Markov jump fuzzy systems	R. Abinandhitha, S. Monisha, R. Sakthivel, R. Manikandan and S. Saat	Chaos, Solitons & Fractals, 167 (2023) 113025	SCIE	5.3
3.	Composite resilient reliable control for nonlinear chaotic semi-Markov jump fuzzy systems with multi-source disturbances	R. Abinandhitha, R. Sakthivel, S. Anandhi and O.M. Kwon	Engineering Applications of Artificial Intelligence, 133 (2024) 108121	SCIE	7.5
4.	Robust non-fragile boundary control for non-linear parabolic PDE systems with semi-Markov switching and input quantization.	R. Abinandhitha, R. Sakthivel, F. Kong and A. Parivallal	European Journal of Control 67 (2022) 100713	SCIE	2.5
5.	Anti-disturbance observer-based finite-time reliable control design for fuzzy switched systems	R. Sakthivel, R. Abinandhitha, S. Harshavarthini, A. Mohammadzadeh and S. Saat,	Fuzzy Sets and Systems, 471 (2023) 108673	SCIE	3.2

6.	Hybrid-triggered-based fault-tolerant dissipative control for TS fuzzy parabolic PDE systems with external disturbances and deception attacks	P. Sozhaeswari, R. Sakthivel, R. Abinandhitha and P. Ramya	Communications in Nonlinear Science and Numerical Simulation, 130 (2024) 107702	SCIE	3.4
7.	Disturbance rejection and tracking control design for nonlinear semi-Markovian jump systems	S. Harshavarthini, R. Sakthivel, R. Abinandhitha and O. M. Kwon	Information Sciences, 677 (2024) 120841	SCIE	8.1
8.	Reliable finite-time control for nonlinear chaotic semi-Markov jump systems with incomplete transition rates	R. Abinandhitha, R. Sakthivel, N. Tatar and Y. Ren	International Journal of Adaptive Control and Signal Processing (Accepted)	SCIE	3.9
9.	Hybrid control design for nonlinear chaotic semi-Markov jump systems via fault alarm approach,	R. Sakthivel, R. Abinandhitha, T. Satheesh and O.M. Kwon	Chaos, Solitons & Fractals (Accepted)	SCIE	5.3
10.	Design of attack resistant robust fuzzy control of chaotic semi-Markov jump stochastic systems with multiple cyber attacks	R. Abinandhitha, T. Satheesh, R. Sakthivel and Y. Ren	International Journal of General Systems (Under Review)	SCIE	2.4
11.	Design of fault-tolerant non-fragile control for parabolic PDE systems with semi-Markov jump: The finite-time case	R. Sakthivel, P. Sozhaeswari, M. Chadli and R. Abinandhitha	International Journal of General Systems (Revised)	SCIE	4.9

Research Summary

Scopus Author ID	57832918700
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Technical Skills Known

- Programming Languages: MATLAB, C, C++
- Documentation Packages: Latex, MS-Office

Declaration

I hereby declare that the information furnished above is true to the best of my knowledge and belief.

Yours Sincerely

R. Abinandhitha