

Curriculum Vitae

Dr. R. Sakthivel
Professor
Department of Applied Mathematics
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Educational Qualifications

- Ph.D. Mathematics (Control Theory), Bharathiar University, India, 1999.
- M.Phil. (Mathematics), Bharathiar University, Coimbatore, 1996.
- M.Sc. (Mathematics), Bharathiar University, Coimbatore, 1994.
- B.Sc. (Mathematics), Bharathiar University, Coimbatore, 1992

Areas of Research

- Systems and Control Theory; Differential / Integral Equations; Fractional Differential Equations; Numerical Methods for PDEs.

Total Number of Publications

- International journals: 265 (SCI & SCIE only)
- Total number of citations: 6300
- h-index: 45
- i-10 index: 157
- Highly Cited Researcher in the years 2017 & 2018 in the field of Mathematics
- Cumulative impact factor: 579

Editorial Board

- **Associate Editor:** Journal of The Franklin Institute - (SCI - Impact Factor - 3.376), Elsevier - USA.
- **Associate Editor:** IEEE Access - (SCI - Impact Factor – 3.557), IEEE - USA.
- **Associate Editor:** Neurocomputing - (SCI - Impact Factor – 3.241), Elsevier - USA.
- **Associate Editor:** Advances in Difference Equations - (SCI - Impact Factor – 0.732), Springer - USA.
- **Associate Editor:** Journal of Electrical Engineering and Technology - (SCI - Impact Factor – 0.597), KIEE- South Korea.
- Active reviewer for more than 70 reputed international journals from IEEE, Elsevier and Springer publishers.

Teaching and Research Experience

- **Professor:** (September 2018- to till date)
Department of Applied Mathematics, Bharathiar University, Coimbatore, India.
- **Professor:** (November 2016 – August 2018)
Department of Mathematics, Bharathiar University, Coimbatore, India.
- **Professor:** (September 2013 – July 2016)
Department of Mathematics, Sri Ramakrishna Institute of Technology, India.
- **Associate Professor:** (March 2012 - August 2013)
Department of Mathematics, Sungkyunkwan University, South Korea.
- **Assistant Professor:** (March 2008 - February 2012)
Department of Mathematics, Sungkyunkwan University, South Korea.
- **Brainpool- Post Doctoral Fellow:** (April 2006 - February 2008)
Department of Mechanical Engineering, Pohang University of Science & Technology, South Korea.
- **Research Professor:** (July 2005 - February 2006)
Department of Mathematics, Yonsei University, South Korea.
- **JSPS-Post Doctoral Researcher:** (April 2003 - April 2005)
Department of Systems Innovation and Informatics (Formerly - Department of Control Engineering and Science), Kyushu Institute of Technology, Japan.
- **Post-Doctoral Researcher:** (October 2001 - February 2003)
Department of Mathematics, Inha University, Incheon, South Korea.
- **Lecturer:** (June 2000 - August 2001)
Department of Mathematics & Computer Applications, Sri Krishna College of Engineering and Technology, India.
- **Senior Research Fellow (CSIR):** (August 1997 – November 1999)
Department of Mathematics, Bharathiar University, India.

Major Research Projects

Completed

- Stability and Controllability of Nonlinear Stochastic Equations - NRF- South Korea -(2010-2013) – Rs. 75,00,000
- Stabilization of Uncertain Dynamical Systems by Robust Reliable Control -NBHM-DAE, India (2014-2017) – Rs. 9,67,500.

Ph.D., Guidance

- Completed - 5
- Ongoing - 8

M.Phil., Guidance

- Ongoing - 6

Conferences Organized

- **Convener-** International conference on Differential Equations and Applications- Bharathiar University- India, March 15-16, 2017.

Awards & Honors

- Highly Cited Researcher in the years 2017 & 2018 in the field of Mathematics
- Grant from IMU for travel, registration & accommodation to attend International Congress of Mathematics (ICM 2018), Rio de Janeiro, Brazil, Aug. 1-9, 2018.

- Distinguished Reviewer; *Advances in Difference Equations* (Springer- 2017)
- Outstanding Reviewer of *Journal of the Franklin Institute* (Elsevier - November 2016).
- Outstanding Reviewer of *Nonlinear Analysis: Hybrid Systems* (Elsevier - May 2015).
- Outstanding Reviewer of *Communications in Nonlinear Science and Numerical Simulation* (Elsevier - September 2015).
- Brain Pool Visiting Fellowship, Korea Research Foundation, South Korea, April 2006 - February 2008.
- JSPS Research Fellowship, Japan Society for the Promotion of Science (JSPS), Japan, April 2003 - April 2005.
- Grant from IMU for travel & accommodation to attend International Congress of Mathematics (ICM 2002), Beijing, China, August 2002.
- Senior Research Fellow, Council of Scientific and Industrial Research (CSIR), India, August 1997 - May 2000.

Visiting Professor & Invited Talks

- Visiting Professor – Sungkyunkwan University, South Korea, May and June 2018.
- Visiting Professor - Anhui Normal University, China, December 2017.
- Visiting Professor- Kongju National University, South Korea, May 2017
- Invited Talk - Indian Institute of Technology (IIT) Mandi, India, March 24, 2015, April 7, 2016 and Feb 2018.
- Visiting Professor- Kongju National University, South Korea, June & December 2015.
- Visiting Professor - Sungkyunkwan University, South Korea, March - June 2014; December 2014, February- April 2015; June & December 2015; May, August, September 2016.
- Visiting Professor - Anhui Normal University, China, December 2010 & June 2014.
- Invited Talk - Indian Institute of Science Education and Research (IISER), Pune, India, January 10, 2014.
- Visiting Professor - Institute of Cyber-Systems and Control, Zhejiang University, China, December 2013.
- Invited Talk - Yonsei University, South Korea, December 2009.
- Invited Talk - Inha University, South Korea, October 2003.
- Invited Talk - Max-Planck Institute, Magdeburg, Germany, September 2002.

Recent Publications (2018)

- R. Sakthivel, C. K. Ahn and M. Joby, Fault-tolerant resilient control for fuzzy fractional order systems, **IEEE Transactions on Systems, Man, and Cybernetics: Systems**, DOI: 10.1109/TSMC.2018.2835442 (2019)
- R. Sakthivel, P. Selvaraj and B. Kaviarasan, Modified repetitive control design for nonlinear systems with time delay based on TS fuzzy model, **IEEE Transactions on Systems, Man, and Cybernetics: Systems**, DOI: 10.1109/TSMC.2017.2756912. (2019)
- R. Sakthivel, S. Mohanapriya, C.K. Ahn and P. Selvaraj, State estimation and dissipative-based control design for vehicle lateral dynamics with probabilistic faults, **IEEE Transactions on Industrial Electronics**, 65 (2018) 7193-7201.
- R. Sakthivel, K Raajananthini, P Selvaraj and Y Ren Design and analysis for uncertain repetitive control systems with unknown disturbances, **Journal of Dynamic Systems, Measurement, and Control** 140 (12), 121007.

- R. Sakthivel, B. Kaviarasan, P. Selvaraj, H.R. Karimi, EID-based sliding mode investment policy design for fuzzy stochastic jump financial systems, **Nonlinear Analysis: Hybrid Systems**, 31 (2019) 100-108.
- P. Selvaraj, R. Sakthivel, O.M. Kwon, Finite-time synchronization of stochastic coupled neural networks subject to Markovian switching and input saturation, **Neural Networks**, 105 (2018) 154-165.
- Y. Ren, W. Yin and R. Sakthivel, Stabilization of stochastic differential equations driven by G-Brownian motion with feedback control based on discrete-time state observation, **Automatica**, 95 (2018) 146-151.
- R. Sakthivel, V. Nithya, P. Selvaraj and O.M. Kwon, Fuzzy sliding mode control design of Markovian jump systems with time-varying delay, **Journal of the Franklin Institute**, 355 (2018) 6353-6370.
- R. Sakthivel, M. Joby, C. Wang and B. Kaviarasan, Finite-time fault-tolerant control of neutral systems against actuator saturation and nonlinear actuator faults, **Applied Mathematics and Computation**, 332 (2018) 425-436.
- R. Sakthivel, P. Revathi, Y. Ren and G. Shen, Retarded stochastic differential equations with infinite delay driven by Rosenblatt process, **Stochastic Analysis and Applications**, 36 (2018) 304-323.
- R. Sakthivel, C. Wang, S. Santra and B. Kaviarasan, Non-fragile reliable sampled-data controller for nonlinear switched time-varying systems, **Nonlinear Analysis: Hybrid Systems**, 27 (2018), 62-76.
- R. Sakthivel, H.R. Karimi, P. Selvaraj and Y. Ren, Observer-based tracking control for switched stochastic systems based on a hybrid 2-D model, **International Journal of Robust and Nonlinear Control**, 28 (2018) 478-491.
- C.K. Ahn, S. Zhao, Y.S. Shmaliy and R. Sakthivel, A revisit to strictly passive FIR filtering, **IEEE Transactions on Circuits and Systems II: Express Briefs**, 65 (2018) 516-520.
- M. Muslim, A. Kumar and R. Sakthivel, Exact and trajectory controllability of second-order evolution systems with impulses and deviated arguments, **Mathematical Methods in the Applied Sciences**, 41 (2018) 4259-4272.
- C. Wang, R.P. Agarwal and S. Rathinasamy, Almost periodic oscillations for delay impulsive stochastic Nicholson's blowflies timescale model, **Computational and Applied Mathematics**, 37 (2018) 3005-3026.
- Y. Ren, Q. He, Y. Gu and R. Sakthivel, Mean-square stability of delayed stochastic neural networks with impulsive effects driven by G-Brownian motion, **Statistics & Probability Letters**, 143 (2018) 56-66.
- R. Sakthivel, T. Saravanakumar, Y.K. Ma and S.M. Anthoni, Finite-time resilient reliable sampled-data control for fuzzy systems with randomly occurring uncertainties, **Fuzzy Sets and Systems**, 329 (2017) 1-18.
- R. Sakthivel, M. Joby and S.M. Anthoni, Resilient dissipative based controller for stochastic systems with randomly occurring gain fluctuations, **Information Sciences**, 418 (2017) 447-462.
- R. Sakthivel, H.R. Karimi, M. Joby and S. Santra, Resilient sampled-data control for Markovian jump systems with an adaptive fault-tolerant mechanism, **IEEE Transactions on Circuits and Systems II: Express Briefs**, 64 (2017) 1312-1316.
- R. Sakthivel, S. Mohanapriya, H.R. Karimi and P. Selvaraj, A robust repetitive control design for a class of uncertain stochastic dynamical systems, **IEEE Transactions on Circuits and Systems II: Express Briefs**, 64 (2017) 427-431.
- A. Benchaabane and R. Sakthivel, Sobolev-type fractional stochastic differential equations with non-Lipschitz coefficients, **Journal of Computational and Applied Mathematics**, 312 (2017) 65-73.

- P. Selvaraj, B. Kaviarasan, R. Sakthivel and H.R. Karimi, Fault-tolerant SMC for Takagi–Sugeno fuzzy systems with time-varying delay and actuator saturation, **IET Control Theory & Applications**, 11 (2017) 1112-1123.
- R. Sakthivel, S. Mohanapriya, P. Selvaraj, H.R. Karimi and S.M. Anthoni, EID estimator-based modified repetitive control for singular systems with time-varying delay, **Nonlinear Dynamics**, 89 (2017) 1141-1156.

Papers Presented in International Conferences

- International Congress of Mathematicians (ICM 2018), Rio de Janeiro, Brazil, Aug. 1-9, 2018.
- Sixth International Conference on Dynamic Systems and Applications, Morehouse College, Georgia, USA, May 25-28, 2011.
- Quantitative Methods in Finance (QMF) Conference, Sydney, Australia, Dec. 14-17, 2005.
- Sixth IFAC Symposium on Nonlinear Control Systems, Stuttgart, Germany, Sep. 1-3, 2004.
- SICE 4th Annual Conference on Control Systems, Kitakyushu, Japan, May 4-6, 2004.
- 8th International Conference on Nonlinear Functional Analysis and Applications held at Gyeongsang National University, Chinju, South Korea, Aug. 4-9, 2004.
- INHA Symposium on Nonlinear Analysis and Related Topics at Inha University, Incheon, South Korea, Oct. 17-18, 2003.
- 32nd SICE Symposium on Control Theory, Sizuoka, Japan, Nov. 5-7, 2003.
- International Congress of Mathematicians (ICM 2002), Beijing, China, Aug. 20-28, 2002.
- Sixth International Conference on Nonlinear Functional Analysis and Applications held at Kyungnam University, South Korea, Sep. 1-5, 2000.