

## Faculty Profile

Name : Dr.R.Samidurai  
Designation : Assistant Professor  
Specialization : Control Theory & Stochastic Differential Equations  
Teaching Experience : 17.03.2011 to till date



## Contacts

Address : Office : Department of Mathematics,  
Thiruvalluvar University, Serkkadu, Vellore-632 115.

E-mail : [rsamiduraitvu@gmail.com](mailto:rsamiduraitvu@gmail.com)

## Projects (Total Projects : 2)

1.Title : **Studies on stability of nonlinear stochastic systems**  
Duration : 2013-2016  
Funding Agency : DST  
Amount Sanctioned : Rs 10,80,00/-

2.Title : **Stability analysis for neutral and impulsive neural networks with time-varying delays**  
Duration : 2013-2015  
Funding Agency : DST-SERB  
Amount Sanctioned : Rs 10,20,00/-

## Research Guidance

M.Phil : 9 (completed)  
Ph.d : 5 (Registered)

## Publications:(International Level)

1. S. Senthilraj, R. Raja, Q. Zhu, **R. Samidurai**, Z. Yao, Exponential passivity analysis of stochastic neural networks with leakage, distributed delays and Markovian jumping, Neurocomputing, Nov 2015,

2. S. Senthilraj, R. Raja, .F. Jiang, Q. Zhu, and **R. Samidurai**, New delay-interval-dependent stability analysis of neutral type BAM neural networks with successive time delay components, *Neurocomputing*, August 2015,
3. R. Raja, Q. Zhu, S. Senthilraj and **R. Samidurai**, Improved stability analysis of uncertain neutral type neural networks with leakage delays and impulsive effects, *Applied Mathematics and Computation*, 266, Sept. 2015, 1050- 1069
4. **R. Samidurai**, and R. Manivannan, Robust passivity analysis for stochastic impulsive neural networks with leakage and additive time-varying delay components, *Applied Mathematics and Computation*, 268, Oct 2015, 743-762.
5. R. Raja, S. Senthilraj and **R. Samidurai**, H- $\infty$  control for Fuzzy neutral systems with mixed delays using delay partition approach. *Asian Journal of Mathematics & Computer Research*,3, Apr. 2015,1-18.
6. S. Senthilraj, R. Raja and **R. Samidurai**, A note on delay-dependent stability analysis of uncertain neutral systems with non-linear perturbations, *Asian Journal of Mathematics & Computer Research*,7, Sep. 2015,245-258.
7. R.Raja, U.Karthik Raja, **R.Samidurai**, A.Leelamani, Passivity analysis for uncertain discrete-time stochastic BAM neural networks with time-varying delays, *Neural Computing and Applications*, 2014, DOI 10.1007/s00521-014-1545-9.
8. **R.Samidurai**, Exponential stability for fuzzy neural networks with impulses: A delay fractioning approach, Narosa publishing house, 2014,205-215.
9. R.Raja, U.Karthik Raja, **R.Samidurai**, A.Leelamani, Dissipativity of discrete-time BAM stochastic neural networks with Markovian switching and impulses, *Journal of Franklin Institute*, 350, 2013, 3217-3247.
10. R.Raja, U.Karthik Raja, **R.Samidurai**, A.Leelamani, Dynamic analysis of discrete-time BAM neural networks with stochastic perturbations and impulses, *International journal of Machine Learning and Cybernetics*, Sep 2013, DOI 10.1007/s13042-013-0199-8.
11. R.Raja, **R.Samidurai**, New delay dependent robust asymptotic stability for uncertain stochastic recurrent neural networks with multiple time varying delays, *Journal of Franklin Institute*, 349, 2012, 2108-2123.
12. R.Sakthivel, **R.Samidurai**, S.M.Anthoni, New exponential stability criteria for stochastic BAM neural networks with impulses, *Physica Scripta*,82,2010,045802(10 pages).
13. R.Sakthivel, **R.Samidurai**, S.M.Anthoni, Asymptotic stability of stochastic delayed recurrent neural networks with impulsive effects, *Journal of Optimization Theory and Applications*,147,2010, 583-596.
14. R.Sakthivel, **R.Samidurai**, S.M.Anthoni, Exponential stability for stochastic neural networks of neutral type with impulsive effects, *Modern Physics Letters B*, 24 (2010) 1099–1110.
15. R.Sakthivel, **R.Samidurai**, S.M.Anthoni, Global exponential stability of neutral-type impulsive neural networks with discrete and distributed delays, *Nonlinear Analysis: Hybrid Systems*, 4 (2010), 103-112.
16. **R.Samidurai**, R.Sakthivel, S.M.Anthoni, Global asymptotic stability of BAM neural networks with mixed delays and impulses, *Applied Mathematics and Computation*, 212 (2009), 113-119.