

# Curriculum Vitae

**Dr. SWATHY P. S.**

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## Teaching Experience:

- Govt. Guest Lecturer – H.H.M.S.P.B.N.S.S. College for Women, Neeramankara, Thiruvananthapuram, India (September, 2018 – March, 2019).
- Govt. Guest Lecturer – Mar Ivanios College, Nalanchira, Thiruvananthapuram, India (July – December, 2019).
- Assistant Professor – Christ Nagar College, Maranalloor, Thiruvananthapuram, India (December 2019 onwards).

## Education:

- Ph. D in Physics – Bharathidasan University, Tiruchirapalli, India (August 2016).  
Title : **Chaos, Hyperchaos and Synchronization of Chaos in SC-CNN Based Nonlinear Oscillators**
- Master of Science (Physics) – Mother Teresa Women’s University (2006-2008).  
J. A. College for Women, India (I class with distinction).
- Bachelor of Science (Physics) – Manonmaniam Sundaranar University (2003-2006).  
St. Jude’s College, India (I class with distinction).
- Secondary School Leaving Certificate — Kerala Board Public Examinations – Cotton Hill Girls Higher Secondary School, India (2003).

**Research Interest: Electronics, Nonlinear Dynamics, Modelling of Chaotic Circuits, Cellular Neural/Nonlinear Networks, Secure Communication.**

### **Publications: International Journals:**

- **P.S. Swathy** and K. Thamilmaran, “*Hyperchaos in SC-CNN based modified canonical Chua’s circuit*”, **Nonlinear Dyn.**, vol. **78**, p. 2639 (2014). **Citations: 33** (Til March, 2020).
- **P.S. Swathy**, S. Sabarathinam, K. Suresh and K. Thamilmaran, “*Chaos synchronization and transmission of information in coupled SC-CNN based canonical Chua’s circuit*”, **Nonlinear Dyn.**, vol. **78**, p. 1033 (2014). **Citations: 5** (Til March, 2020).
- **P.S. Swathy** and K. Thamilmaran, “*Dynamics of SC-CNN Based Variant of MLC Circuit: An Experimental Study*”, **Int. J. Bifurcation and Chaos**, vol. **24**, p. 1430008 (2014). **Citations: 6** (Til March, 2020).
- **P.S. Swathy** and K. Thamilmaran, “*An experimental study on SC-CNN based canonical Chua’s circuit*”, **Nonlinear Dyn.**, vol. **71**, p. 505 (2013). **Citations: 20** (Til March, 2020).
- **P.S. Swathy** and K. Thamilmaran, “*Synchronization in coupled simplified SC-CNN based Chua’s circuit and canonical Chua’s circuit*”, **Nonlinear Dyn.** (Under Review).

### **Selective Research Papers Presented in the International and National Conferences:**

- Presented a paper entitled “**Synchronization in Coupled SC-CNN based Chua’s circuit and Canonical Chua’s Circuit**” in the *2<sup>nd</sup> International Symposium on Complex Dynamical System and Applications (CDSA II)* held at **Presidency University, Kolkata** – 700 073 during 9-12 January 2012.
- Presented a poster entitled “**Synchronization in SC-CNN based Canonical Chua’s Circuit**” in the *19<sup>th</sup> IEEE Workshop on Nonlinear Dynamics of Electronic Systems (NDES-2011)* held at **Indian Institute of Chemical Biology and Saha Institute of Nuclear Physics, Kolkata** – 700 032 during 8-11, March 2011.
- Presented a paper entitled “**SC-CNN based Canonical Chua’s Circuit**” in the *6<sup>th</sup> National Conference on Nonlinear Systems and Dynamics (NCNSD-2011)* held at Centre for Nonlinear Dynamics, School of Physics, **Bharathidasan University, Tiruchirappalli** - 620 024 during 27-30, January 2011.
- Presented a paper on UGC sponsored *National Conference* on Recent and Emerging Developments in Physics entitled “**Dynamics on Driven Chua’s circuit**” held at **Women’s Christian College, Nagercoil** – 629 001 during 7-9, January 2010.

### **Partial list of Conference/Seminars/Workshops attended:**

- Participated in *NMI workshop on Nonlinear Integrable Systems and their Applications* held at School of Physics, *Bharathidasan University*, Tiruchirappalli – 620 024 during 24 February- 1 March, 2014.
- Participated in the *7<sup>th</sup> National Conference on Nonlinear Systems and Dynamics (NCNSD-2012)* held at *Indian Institute of Science Education and Research (IISER)*, Pune - 411 008 during July 12-15, 2012.
- Participated in the *6<sup>th</sup> National conference on Nonlinear Systems and Dynamics (NCNSD-2011)* held at School of Physics, *Bharathidasan University*, Tiruchirappalli – 620 024 during January 27-30, 2011.
- Participated in the *DST-SERC School on Nonlinear Dynamics* held at School of Physics, *Bharathidasan University*, Tiruchirappalli - 620 024 during 4-26, January 2011.
- Participated in the *National workshop and conference on Computational methods for Nonlinear Dynamics* held at School of Physics, *Bharathidasan University*, Tiruchirappalli - 620 024 during 22-25, September 2010.
- Participated in the *workshop on High Performance Computing* held at School of Physics, *Bharathidasan University*, Tiruchirappalli - 620 024 during 23-27, August 2010.
- Participated in *Awareness Programme on Nanotechnology* held at *Bharathidasan University*, Tiruchirappalli – 620 024 during on 27 - 28 February, 2010.
- Participated in the *National seminar on Frontier Topics in Theoretical Physics* held at School of Physics, *Bharathidasan University*, Tiruchirappalli - 620 024 during 30-31, March 2009.
- Participated in the *National seminar on Nonlinear Electronics and Spintronics* held at School of Physics, *Bharathidasan University*, Tiruchirappalli - 620 024 during 20-21, March 2009.
- Participated in the *International Conference on Recent Developments in Nonlinear Dynamics* conducted by Centre for Nonlinear Dynamics, School of Physics, *Bharathidasan University*, Tiruchirappalli – 620 024 during 13-16, February 2008.