

## Neil E. Cotter

### Education

- PhD, Electrical Engineering, Stanford University, 1986
- MS, Mathematics, Stanford University, 1985
- MS, Electrical Engineering, Stanford University, 1981
- BE, Electrical Engineering, Caltech, 1979

### Academic Experience (Full-Time 1986-1991 and 1999-present)

- Univ. of Utah ECE Department: Assoc. Prof. (Lecturer) (2009-present), Res. Asst. Prof. (1991-2009), Asst. Prof. (1986-1991)

### Non-Academic Experience (Full-Time 1991-1998)

- 4pi Analysis Inc., Durham (No. Carolina), Consultant, 1997-2002
- Fonix Corp. (Utah), Consultant/Software Developer, 1997-1998
- Geneva Steel, (Utah), Consulting Engineer, 1991-1997

### Certifications or Professional Registrations: NA

### Professional Organization Membership

- IEEE, ASEE

### Select Service Activities

#### *Department/University Service*

- Member, Bachelor's of University Studies Committee, Univ. Of Utah, 2019 - present
- Member, Undergraduate Committee, ECE Dept., Univ. of Utah, 2000-Present
- Member, University of Utah Student Computing Advisory Committee, 2011-2014
- Member, Computer Engineering Program Committee, Dept. of Electrical and Computer Engineering, Univ. of Utah, 2002-2006

### Publications and Presentations (Most Important)

1. F. Koohestan-Mahalian and N. E. Cotter, "A framework for analyzing, designing, and visualizing spiking neural networks part I: linear response surfaces", in *IEEE Access*, vol. 8, 2020: 203945-203964.
2. F. Koohestan-Mahalian, N. E. Cotter, P. T. Zamani, A. M. Rubart, "A framework for analyzing, designing, and visualizing spiking neural networks part II: nonlinear response surfaces", in *IEEE Access*, vol. 9, 2021: 8935-8953.
3. F. Koohestan-Mahalian and N. Cotter, "Exact Characterization of Phase Locking in a Linear Recurrent Spiking Neural Network", to be published in *Proc. Conf. on Signals, Sys., and Computers*, Asilomar, CA, Nov. 2020.
4. C. Furse, N. Cotter, A. Rasmussen, "Bottlenecks and Muddiest Points in a Freshman Circuits Course", in *Annual ASEE Conference and Expos.*, Salt Lake City, UT, June 2018.
5. R. Kempter, C. Furse, N. Cotter, N. Safai, and L. Brinton, "Challenges in Curriculum Adaptation across Institutions of Higher Education: Similarities between International and National Student Transfer", in *Annual ASEE Conference and Expos.*, Chicago, IL, July 2006.

6. A. S. Younger, P. R. Conwell, and N. E. Cotter, "Fixed-weight on-line learning", in *IEEE Trans. Neural Networks*, vol. 10, no. 2, pp. 272-283, 1999.
7. N. E. Cotter and O. N. Mian, "A pulsed neural network capable of universal approximation", *IEEE Trans. Neural Networks*, vol. 3, no. 2, pp. 308-314, 1992.

**Most Recent Professional Development Activities:**

ASEE Conference 2018

NI Week Conference 2014