

Ali Eslami

Education

- Ph.D., Electrical and Computer Engineering Feb. 2013
University of Massachusetts Amherst, Amherst, MA
Thesis: *A Non-Asymptotic Approach to the Analysis of Communication Networks: From Error Correcting Codes to Network Properties*
Advisor: Prof. Hossein Pishro-Nik
- M.Sc., Electrical Engineering Sept. 2006
Sharif University of Technology, Tehran, Iran
Thesis: *Analysis of Network Coding in Wireless Networks*
Advisor: Prof. B. H. Khalaj
- B.Sc., Electrical Engineering Sept. 2004
Sharif University of Technology, Tehran, Iran
Thesis: *Investigating ISI in Digital Modulation Techniques*
Advisor: Prof. M. H. Bastani

Work Experience

- Associate Professor, Dept. of Electrical and Computer Engineering Aug. 2021-present
Wichita State University, Wichita, KS
- Assistant Professor, Dept. of Electrical and Computer Engineering Jul. 2015-May 2021
Wichita State University, Wichita, KS
- Visiting Research Scholar, Information Initiative at Duke (iiD) Aug. 2014-Jun. 2015
Duke University, Durham, NC
Supervisor: Prof. Robert Calderbank
- Post-Doctoral Research Associate, Electrical and Computer Engineering Mar. 2013-Apr. 2015

Advanced data analytics for multi-layer interconnected networks.
Evolutionary artificial general intelligence.

Funding

PI: Ali Eslami

NSF EPSCoR

Dec. 2023-Jan. 2025

Developing a Network Science to Study Cascading Failures in the Cyber-Physical Infrastructure

PI: Ali Eslami

Excelacom Inc.

Jul. 2021

Journals:

1. M. Okwori* and **A. Eslami**, Feature Engineering from Meta-Data for Prediction of Differentially Expressed Genes: An Investigation of *Mus musculus* Exposed to Space-
Computational Biology and Chemistry, Vol. 109, Apr. 2024.
2. S. Kotiang* and **A. Eslami**, Density Evolution for Noise Propagation Analysis in Biological Networks, *IEEE Access*, vol. 10, pp. 4261-4270, Jan. 2022.
3. S. Kotiang* and **A. Eslami**, Boolean Factor G

16. **A. Eslami**, S. Vangala, and H. Pihstro- Hybrid Channel Codes for Efficient FSO/RF Communication Systems *IEEE Transactions on Communications*, vol. 58, no. 10, pp. 2926-2938, Oct. 2010.

Conferences:

17. M. Okwori* and **A. Eslami** -MPred: Cofunctional Gene Network-based Mutation *Proc. IEEE International Conference on Bioinformatics & Biomedicine (BIBM)*, Virtual Conference, pp. 2451-2455, Dec. 2021.
18. S. Kotiang* and **A. Eslami** Probabilistic Factor Graph Modeling and Analysis of Biological Networks *Proc. 28th International Conference on Intelligent Systems for Molecular Biology (ISMB)*, Held Virtually, July 2020.
19. A. Behfarnia* and **A. Eslami**, Local Voting Games for Misbehavior Detection in VANETs in Presence of Uncertainty, in *Proc. 57th Annual Allerton Conference on Communication, Control, and Computing*, Monticello, IL, USA, Sept. 2019.
20. A. Behfarnia* and **A. Eslami**, Risk Assessment of Autonomous Vehicles Using Bayesian Defense Graphs, in *Proc. IEEE Vehicular Technology Conference*, Chicago, IL, USA, Aug. 2018.
21. P. Vuka*, A. Behfarnia*, and **A. Eslami** -Enabled Micro Communication D in *Proc. IEEE Nano '17*, Pittsburg, PA, USA, Jul. 2017.
22. A. Behfarnia* and

29. **A. Eslami** and H. Pishro-Nik On Bit Error Rate Performance of Polar Codes in Finite Regime in *Proc. IEEE International Symposium on Information Theory (ISIT)*, Saint Petersburg, Russia, Aug 2011.
30. **A. Eslami** and H. Pishro-Nik On Bit Error Rate Performance of Polar Codes in Finite Regime in *proc. 48th Annual Allerton Conference on Communication, Control, and Computing*, Monticello, IL, USA, Sept. 2010.
31. **A. Eslami**, M. Nekoui, and H. Pishro-Nik Results on Finite Wireless Networks on A Line in *Proc. IEEE Information Theory Workshop (ITW)*, Cairo, Egypt, Jan. 2010.
32. M. Nekoui, **A. Eslami**, and H. Pishro-Nik The Capacity of Vehicular Ad Hoc Networks with Infrastructure in *Proc. 6th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks and Workshops (WiOPT)*, Berlin, Germany, Apr. 2008.
33. M. Nekoui, **A. Eslami**, and H. Pishro-Nik Scaling Laws for Distance Limited Communications in Vehicular Ad Hoc Networks in *Proc. IEEE International Conference on Communications (ICC)*, Beijing, China, May 2008.
34. **A. Eslami** Capacity of Network Coding for Wireless Multicasting *Proc. 8th Annual IEEE Wireless and Microwave (WAMI) Technology Conference*, Clearwater Beach, Florida, USA, Dec. 2006.
35. **A. Eslami** Wireless Multicasting Using Network Coding *Proc. 1st IEEE International Workshop on Operator-Assisted (Wireless Mesh) Community Networks (OpComm)*, Berlin, Germany, Sept. 2006.

Theses/Dissertations Advised

Stephen Kotiang, *Ph.D. Dissertation: Application of Graphical Models to Inference and Analysis of Biological Networks*, Sep. 2022.

Michael Okwori, *Ph.D. Dissertation: Application of Machine Learning Models*

Threshold Phenomena in Finite Wireless Networks, School of Electrical, Computer and Energy Engineering, Arizona State University, Tempe, AZ, Aug. 2013.

Computer Skills

Programming Languages: Python, C++, Pascal, Assembly, TCL

Software Packages: MATLAB/Simulink, NS-2, LaTeX, MS Office, MS Visio

Professional Activities

Member of the Institute of Electrical and Electronics Engineers (IEEE), IEEE Communications Society and IEEE Computer Society.

NSF Review Panelist

Frequent Reviewer of Technical Articles:

- IEEE Transactions on Neural Networks and Learning Systems, IEEE Trans. on Information Theory, IEEE Trans. on Communications, IEEE Communications Letters, IEICE Transactions on Communications, IEEE International Symposium on Information Theory, IEEE International Conference on Communications, IEEE GLOBECOM, IEEE Information Theory Workshop, International Conference on Telecommunications, IEEE SPAWC, Australian Communications Theory Workshop, International Symposium on Turbo Codes & Iterative Information Processing.