

## **R.D. Gitlin Peer-Reviewed Publications**

### **At USF**

1. F. T. Al Rabee and R. D. Gitlin, " Uplink Power-Domain Non-Orthogonal Multiple Access (NOMA): Bit Error Rate Performance with Channel Estimation Errors," in International Journal of Interdisciplinary Telecommunications and Networking, vol. 12, no. 4, 2020. [PDF](#)
2. Chetana Murudkar and Richard D. Gitlin, "User-Centric Approaches for Next-Generation Self-Organizing Wireless Communication Networks Using Machine Learning", IEEE International Conference on Microwaves, Communications, Antennas, and Electronic Systems (COMCAS), Tel Aviv, Israel, November 4-6, 2019. [PDF](#)
3. Chetana V. Murudkar and R. D. Gitlin, "Machine Learning for QoE Prediction and Anomaly Detection in Self-Organizing Mobile Networking Systems," International Journal of Wireless & Mobile Networks (IJWMN), April 2019 [PDF](#).
4. Chetana V. Murudkar and R. D. Gitlin, "Optimal-Capacity, Shortest Path Routing in Self-Organizing 5G Networks using Machine Learning," 20th annual IEEE Wireless and Microwave Technology Conference (WAMICON), Cocoa Beach, FL, USA, April 8-9, 2019. [PDF](#).
5. N. I. Sulieman and R. D. Gitlin, "Near-Instant Fault Recovery and Ultra-Reliable Multi-Hop Wireless Sensor Networks," IEEE SoutheastCon 2019 Conference, Huntsville, AL, USA, April 11-14, 2019 [PDF](#).
6. Chetana V. Murudkar and R. D. Gitlin, "QoE-driven Anomaly Detection in Self-Organizing Mobile Networks using Machine Learning," the 18th annual Wireless Telecommunications Symposium (WTS 2019), New York City, NY, USA, April 9-12, 2019. [PDF](#).
7. Mohamed Elkourdi, Asim Mazin and R. D. Gitlin, "Performance Analysis for Virtual-Cell Based CoMP 5G Networks Using Deep Recurrent Neural Nets," the 18th annual Wireless Telecommunications Symposium (WTS 2019), New York City, NY, USA, April 9-12, 2019. [PDF](#).
8. F. Al Rabee and R. D. Gitlin, "Performance of Uplink Non-Orthogonal Multiple Access (NOMA) in the Presence of Channel Estimation Errors," the 18th annual Wireless Telecommunications Symposium (WTS 2019), New York City, NY, USA, April 9-12, 2019. [PDF](#).
9. Asim Mazin, Mohamed Elkourdi and R. D. Gitlin, " SAN- Slotted Aloha-NOMA a MAC Protocol for M2M Communications ," Information Theory and Applications (ITA 2019), February 2019. [Invited paper](#), [PDF](#) .
10. Eren Balevi and R. D. Gitlin, "An Inherent Fog Network Brain-Spinal Cord-Nerve Networks," IEEE Access, Dec 2018, DOI: [10.1109/ACCESS.2018.2800679](#).
11. F. Al Rabee, Ashraf Al-Rimawi, and R. D. Gitlin, "Channel Capacity in a Dynamic Random Waypoint Mobility Model," 9th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON) 2018, New York City, NY, USA, November 8-9, 2018. [PDF](#).
12. Asim Mazin, Mohamed Elkourdi and R. D. Gitlin, "Comparative Performance Analysis of Beam Sweeping Using a Deep Neural Net and Random Starting Point in mmWave 5G New Radio," 9th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON) 2018, New York City, NY, USA, November 8-9, 2018. [PDF](#)
13. Mohamed Elkourdi, Asim Mazin and R. D. Gitlin, "Optimization of 5G Virtual Cell Based Coordinated Multipoint Networks Using Deep Machine Learning," International Journal of Wireless & Mobile Networks (IJWMN) Vol. 10, No. 4, August 2018 [PDF](#).
14. N. I. Sulieman, Eren Balevi and R. D. Gitlin, "Enhanced Diversity and Network Coded 5G Wireless Fog-Based-Fronthaul Networks," IEEE 88th Vehicular Technology Conference (VTC2018-Fall), Chicago, IL, USA, August 27-30, 2018. [PDF](#).

15. Asim Mazin, Mohamed Elkourdi and R. D. Gitlin, "Accelerating Beam Sweeping in mmWave Standalone 5G New Radios using Recurrent Neural Networks," IEEE 88th Vehicular Technology Conference (VTC2018-Fall), Chicago, IL, USA, August 27-30, 2018. [PDF](#).
16. Asim Mazin, Mohamed Elkourdi and R. D. Gitlin, "Comparison of Slotted Aloha-NOMA and CSMA/CA for M2M Communications in IoT Networks," IEEE 88th Vehicular Technology Conference (VTC2018-Fall), Chicago, IL, USA, August 27-30, 2018. [PDF](#).
17. Mohamed Elkourdi, Asim Mazin and R. D. Gitlin, "Slotted Aloha-NOMA with MIMO Beamforming for Massive M2M Communication in IoT Networks," IEEE 88th Vehicular Technology Conference (VTC2018-Fall), Chicago, IL, USA, August 27-30, 2018. [PDF](#).
18. Mohamed Elkourdi, Asim Mazin and R. D. Gitlin, "Towards Low Latency in 5G HetNets: A Bayesian Cell Selection / User Association Approach," IEEE 5G World Forum (5GWF'18) July 9-11, 2018 in Santa Clara, CA, USA, [PDF](#).
19. N. I. Sulieman and R. D. Gitlin, "Efficiently Secure Broadcasting in 5G Wireless Fog-Based-Fronthaul Networks," International Journal of Wireless & Mobile Networks (IJWMN) Vol. 10, No. 3, June 2018 [PDF](#).
20. Eren Balevi and R. D. Gitlin, "A Clustering Algorithm That Maximizes Throughput in 5G Heterogeneous F-RAN Networks," IEEE International Conference on Communications (ICC), 2018, Kansas City, MO, May 2018, [PDF](#).
21. Eren Balevi, F. Al Rabee and R. D. Gitlin, "ALOHA-NOMA for Massive Machine-to-Machine IoT Communication," IEEE International Conference on Communications (ICC), 2018, Kansas City, MO, May 2018, [PDF](#).
22. Eren Balevi and R. D. Gitlin, "Pareto Optimization for NOMA Power Control," IEEE Wireless Telecommunications Symposium (WTS), 2018, Phoenix, AR, April 2018, [PDF](#).
23. N. Sulieman, Eren Balevi and R. D. Gitlin, "Near-Instant Link Failure Recovery in 5G Wireless F-RANs," IEEE Wireless Telecommunications Symposium (WTS), 2018, Phoenix, AR, April 2018, [PDF](#).
24. Mohamed Elkourdi, Asim Mazin and R. D. Gitlin, "Enabling Slotted Aloha-NOMA for Massive M2M Communication in IoT Networks," IEEE 19th Wireless and Microwave Technology Conference (WAMICON), April 2018, [PDF](#).
25. Nazli Siasi, N. Sulieman and R. D. Gitlin, "Ultra-Reliable NFV-Based 5G Networks Using DC-NC," IEEE 19th Wireless and Microwave Technology Conference (WAMICON), April 2018, [PDF](#).
26. N. Sulieman and R. D. Gitlin, "Ultra-Reliable and Energy Efficient Wireless Sensor Networks," IEEE 19th Wireless and Microwave Technology Conference (WAMICON), April 2018, [PDF](#).
27. N. Sulieman, Eren Balevi and R. D. Gitlin, "Reliable and Resilient Coordinated Multi Point Fronthaul Networks," IEEE 19th Wireless and Microwave Technology Conference (WAMICON), April 2018, [PDF](#).
28. Eren Balevi and R. D. Gitlin, "Stochastic geometry analysis of IEEE 802.15.6," IEEE 19th Wireless and Microwave Technology Conference (WAMICON), April 2018, [PDF](#).
29. Eren Balevi and R. D. Gitlin, "Optimizing the Number of Fog Nodes for Cloud-Fog-Thing Networks," IEEE Access, February 2018, San Diego, CA. DOI: [10.1109/ACCESS.2018.2808598](https://doi.org/10.1109/ACCESS.2018.2808598).
30. Eren Balevi and R. D. Gitlin, "An Inherent Fog Network Brain-Spinal Cord-Nerve Networks," IEEE Access, Dec 2018, DOI: [10.1109/ACCESS.2018.2800679](https://doi.org/10.1109/ACCESS.2018.2800679).
31. Eren Balevi and R. D. Gitlin, "Synergies between Cloud-Fog-Thing and Brain-Spinal Cord-Nerve Networks," Information Theory and Applications Workshop (ITA), 2018, San Diego, CA, February 2018, [PDF](#). [Invited paper](#).
32. Eren Balevi and R. D. Gitlin, "Unsupervised Machine Learning in 5G Networks for Low Latency Communications," IEEE International Performance Computing and Communications Conference-IPCCC-2017, December 2017, San Diego, CA. [PDF](#).
33. Eren Balevi and R. D. Gitlin, "Performance Analysis of Local Anchor Based 5G HetNets Using Stochastic Geometry," International Journal of Wireless & Mobile Networks (IJWMN) Vol. 9, No. 5, October 2017 [PDF](#).

34. N. Sulieman, Eren Balevi, K. Davaslioglu, and R. D. Gitlin, "Diversity and Network Coded 5G Fronthaul Wireless Networks for Ultra Reliable and Low Latency Communications," IEEE International Symposium on Personal, Indoor and Mobile Radio Communications 2017, Montreal, QC, Canada, Oct 2017, [PDF](#).
35. N. Sulieman, K. Davaslioglu, and R. D. Gitlin, "Diversity Coded 5G Fronthaul Wireless Networks," IEEE Wireless Telecommunications Symposium (WTS), 2017, Chicago, IL, April 2017, [PDF](#).
36. D. S. Wickramasuriya, C. A. Perumalla, K. Davaslioglu, and R. D. Gitlin, "Base Station Prediction and Proactive Mobility Management in Virtual Cells using Recurrent Neural Networks," IEEE 18th Wireless and Microwave Technology Conference (WAMICON), April 2017, [PDF](#).
37. F. Al Rabee, K. Davaslioglu, and R. D. Gitlin, "The Optimum Received Power Levels of Uplink Non- Orthogonal Multiple Access (NOMA) Signals," IEEE 18th Wireless and Microwave Technology Conference (WAMICON), April 2017, [PDF](#).
38. A. Mazin, K. Davaslioglu, and R. D. Gitlin, "Secure Key Management for 5G Physical Layer Security," IEEE 18th Wireless and Microwave Technology Conference (WAMICON), April 2017, [PDF](#).
39. N. Sulieman, K. Davaslioglu, and R. D. Gitlin, "Link Failure Recovery via Diversity Coding in 5G Fronthaul Wireless Networks," IEEE 18th Wireless and Microwave Technology Conference (WAMICON), April 2017, [PDF](#).
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41. D. S. Wickramasuriya, C. A. Perumalla, and R. D. Gitlin, "Predicting Episodes of Atrial Fibrillation using RR-Intervals and Ectopic Beats," IEEE/EMB joint International Conference on Biomedical and Health Informatics (BHI), Orlando, FL, February 2017, [PDF](#).
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