

## IEEE Journal and Conference Papers – under review

[FTN23] O. Tokluoglu, A. Cicek, E. Cavus, E. Bedeer, H. Yanikomeroglu, “Faster-than-Nyquist signaling detection using GRU-based deep neural network”, *IEEE PIMRC 2025*.

[FTN22] Z. Zhang, M. Yuksel, G.M. Guvensen, H. Yanikomeroglu, “PAPR analysis for MIMO FTN signaling with Gaussian symbols”, *IEEE PIMRC 2025*.

[FTN21] O. Tokluoglu, A. Cicek, E. Cavus, E. Bedeer, H. Yanikomeroglu, “GRU-based sequence detection for faster-than-Nyquist signaling”, *IEEE Open Journal of the Communications Society*, 2025.

[FTN20] O. Tokluoglu, E. Cavus, E. Bedeer, H. Yanikomeroglu, “A novel CNN based standalone detector for faster-than-Nyquist signaling”, *IEEE Transactions on Communications*, 2025.

[FTN19] Z. Zhang, M. Yuksel, G.M. Guvensen, H. Yanikomeroglu, “Capacity and PAPR analysis for MIMO faster-than-Nyquist signaling with high acceleration”, *IEEE Transactions on Wireless Communications*, 2024.

## IEEE Journal and Conference Papers – 2025

[FTN18] H. Xu, B.K. Ng, C.-T. Lam, H. Yanikomeroglu, “FTN-assisted SWIPT-NOMA design for IoT wireless networks: A paradigm in wireless efficiency and energy utilization”, *IEEE Sensors Journal*, 15 Feb 2025.

[FTN17] Z. Zhang, M. Yuksel, H. Yanikomeroglu, B. Ng, C.-T. Lam, “Maximum channel coding rate of finite block length MIMO faster-than-Nyquist signaling”, *IEEE Wireless Communications and Networking Conference (WCNC) 2025*.

## IEEE Journal and Conference Papers – 2024

[FTN16] A. Cicek, I. Marsland, E. Cavus, E. Bedeer, H. Yanikomeroglu, “Low complexity lookup table aided soft output semidefinite relaxation based faster-than-Nyquist signaling detector”, *IEEE International Conference on Communications (ICC) 2024*. [[Xplore](#)]

## IEEE Journal and Conference Papers – 2023

[FTN15] Z. Zhang, M. Yuksel, H. Yanikomeroglu, B.K. Ng, C.-T. Lam, “MIMO asynchronous MAC with Faster-than-Nyquist (FTN) signaling”, *IEEE Globecom 2023*. [[Xplore](#)]

[FTN14] Z. Zhang, M. Yuksel, G. Guvensen, H. Yanikomeroglu, “Capacity region of asynchronous multiple access channels with FTN”, *IEEE Communications Letters*, July 2023. [[Xplore](#)]

[FTN13] Z. Zhang, M. Yuksel, H. Yanikomeroglu, “Faster-than-Nyquist signaling for MIMO communications”, *IEEE Transactions on Wireless Communications*, April 2023. [[Xplore](#)]

[FTN12] A. Abdelsamie, I. Marsland, A. Ibrahim, H. Yanikomeroglu, “MetNet: A novel low-complexity neural network aided detection for faster-than-Nyquist (FTN) signalling in ISI channels”, *IEEE Open Journal of the Communications Society*, 2023. [[Xplore](#)]

[FTN11] A. Cicek, E. Cavus, E. Bedeer, H. Yanikomeroglu, “Coordinate interleaved faster-than-Nyquist signaling”, *IEEE Communications Letters*, Jan 2023. [[Xplore](#)]

## IEEE Journal and Conference Papers – 2022

[FTN10] A. Abdelsamie, I. Marsland, A. Ibrahim, H. Yanikomeroglu, “Neural network aided Viterbi detectors for FTN signalling in ISI channel”, *IEEE Globecom 2022*. [[Xplore](#)]

## IEEE Journal and Conference Papers – 2021

**[FTN09]** A. Ibrahim, E. Bedeer, H. Yanikomeroglu, “A novel low complexity faster-than-Nyquist (FTN) signaling detector for ultra high-order QAM”, *IEEE Open Journal of the Communications Society*, 2021.

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**[FTN08]** E. Cerci, A. Cicek, E. Cavus, E. Bedeer, H. Yanikomeroglu, “Coded faster-than-Nyquist signaling for short packet communications”, *IEEE PIMRC 2021*. [\[Xplore\]](#)

**[FTN07]** A. Ibrahim, E. Bedeer, H. Yanikomeroglu, “A novel low complexity faster-than-Nyquist signaling detector based on the primal-dual predictor-corrector interior point method”, *IEEE Communications Letters*, July 2021. [\[Xplore\]](#)

## IEEE Journal and Conference Papers – 2020

**[FTN06]** A. Caglan, A. Cicek, E. Cavus, E. Bedeer, H. Yanikomeroglu, “Polar coded faster-than-Nyquist (FTN) signaling with symbol-by-symbol detection”, *IEEE Wireless Commun. Netw. Conf. (WCNC) 2020*.

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**[FTN05]** M. Kulhandjian, E. Bedeer, H. Kulhandjian, C. D’Amours, H. Yanikomeroglu, “Low-complexity detection for faster-than-Nyquist signaling based on probabilistic data association”, *IEEE Communications Letters*, April 2020. [\[Xplore\]](#)

## IEEE Journal and Conference Papers – 2019

[FTN04] E. Bedeer, H. Yanikomeroglu, M.H. Ahmed, “**Low-complexity detection of M-ary PSK faster-than-Nyquist (FTN) signaling**”, *IEEE Wireless Commun. and Networking Conf. Workshops (WCNCW) 2019*. [[Xplore](#)]

## IEEE Journal and Conference Papers – 2017

[FTN03] E. Bedeer, M.H. Ahmed, H. Yanikomeroglu, “**Low-complexity detection of high-order QAM faster-than-Nyquist signaling**”, *IEEE Access*, 2017. [[Xplore](#)]

[FTN02] E. Bedeer, M.H. Ahmed, H. Yanikomeroglu, “**A very low complexity successive symbol-by-symbol sequence estimator for binary faster-than-Nyquist signaling**”, *IEEE Access*, 2017. [[Xplore](#)]

[FTN01] E. Bedeer, H. Yanikomeroglu, M.H. Ahmed, “**Reduced complexity optimal detection of binary faster-than-Nyquist signaling**”, *IEEE International Conference on Communications (ICC) 2017*. [[Xplore](#)]