

IEEE Magazine Papers

IEEE Magazine Papers – under review

[M38] S. Alfattani, W. Jaafar, H. Yanikomeroglu, A. Yongacoglu, “**Multi-mode high altitude platform stations (HAPS) for next generation wireless networks**”, under review in *IEEE Vehicular Technology Magazine*.

[M37] C.E. Kement, F. Kaya, W. Jaafar, H. Yanikomeroglu, G. Senarath, N.-D. Dao, P. Zhu, “**Sustaining dynamic traffic in dense urban areas with high altitude platform stations (HAPS)**”, under review in *IEEE Communications Magazine*.

[M36] O. Abbasi, A. Yadav, H. Yanikomeroglu, N. Dao, G. Senarath, P. Zhu, “**HAPS for 6G networks: Potential use cases, open challenges, and possible solutions**”, under review in *IEEE Wireless Communications Magazine*.

[M35] W. Wang, O. Abbasi, H. Yanikomeroglu, C. Liang, L. Tang, Q. Chen, “**VHetNets for AI and AI for VHetNets: An anomaly detection case study for ubiquitous IoT**”, under review in *IEEE Network Magazine*.

[M34] A.U. Chaudhry, G. Lamontagne, H. Yanikomeroglu, “**Laser inter-satellite link range in free-space optical satellite networks: Impact on latency**”, under review in *IEEE Aerospace and Electronic Systems Magazine*.

IEEE Magazine Papers – 2023

[M33] H. Alakoca, M. Namdar, S. Aldirmaz-Colak, M. Basaran, A. Basgumus, L. Durak-Ata, H. Yanikomeroglu, “**Metasurface manipulation attacks: Potential security threat of RIS-aided 6G communications**”, *IEEE Communications Magazine (Early Access)*.

[M32] Z. Akusta Dagdeviren, V.K. Akram, O. Dagdeviren, B. Tavli, H. Yanikomeroglu, “***k*-Connectivity in wireless sensor networks: Overview and future research directions**”, *IEEE Network Magazine (Early Access)*.

[M31] N. Cherif, W. Jaafar, E. Vinogradov, H. Yanikomeroglu, S. Pollin, A. Yongacoglu, “**iTUAVs: Intermittently tethered UAVs for future wireless networks**”, *IEEE Wireless Communications Magazine (Early Access)*.

[M30] A.M. Demirtas, M.S. Seyfioglu, I. Bor-Yaliniz, B. Tavli, and Halim Yanikomeroglu, “**Deep learning based autonomous UAV-BSs for NGWNs: Overview and a novel architecture**”, *IEEE Consumer Electronics Magazine*, Jan 2023. (01)

IEEE Magazine Papers – 2022

[M29] W. Jaafar, H. Yanikomeroglu, “**HAPS-ITS: Enabling future ITS services in trans-continental highways**”, *IEEE Communications Magazine*, Oct 2022. (04)

[M28] K. Tekbiyik, G. Karabulut Kurt, A.R. Ekti, H. Yanikomeroglu, “**Reconfigurable intelligent surfaces in action for non-terrestrial networks**”, *IEEE Vehicular Technology Magazine*, Sep 2022. (07)

[M27] T. Ahmmed, A. Alidadi, Z. Zhang, A.U. Chaudhry, H. Yanikomeroglu, “**The digital divide in Canada and the role of LEO satellites in bridging the gap**”, *IEEE Communications Magazine*, Jun 2022. (04)

IEEE Magazine Papers – 2021 (2/2)

[M26] A.U. Chaudhry, H. Yanikomeroglu, “Free space optics for next-generation satellite networks”, *IEEE Consumer Electronics Magazine*, Nov 1 2021. (49)

[M25] N. Cherif, W. Jaafar, H. Yanikomeroglu, A. Yongacoglu, “3D Aerial highway: The key enabler of the retail industry transformation”, *IEEE Communications Magazine*, Sep 2021. (18)

[M24] C. Goztepe, S. Büyükcörak, G. Karabulut Kurt, H. Yanikomeroglu, “Localization threats in next-generation wireless networks”, *IEEE Communications Magazine*, Sep 2021. (03)

[M23] G. Karabulut Kurt, H. Yanikomeroglu, “Communication, computing, caching and sensing for next generation aerial delivery networks: Using a high-altitude platform station as an enabling technology”, *IEEE Vehicular Technology Magazine*, Sep 2021. (13)

[M22] T. Darwish, G. Karabulut Kurt, H. Yanikomeroglu, G. Senarath, P. Zhu, “A vision of self-evolving network management for future intelligent vertical HetNet”, *IEEE Wireless Communications Magazine*, Aug 2021. (22)

IEEE Magazine Papers – 2021 (1/2)

[M21] A.U. Chaudhry, Halim Yanikomeroglu, “**Laser inter-satellite links in a Starlink constellation: A classification and analysis**”, *IEEE Vehicular Technology Magazine*, Jun 2021. (44)

[M20] A.B. Ozyurt, M. Basaran, M. Ardanuc, L. Durak-Ata, H. Yanikomeroglu, “**Intracell frequency band exiling for green wireless networks: Implementation, performance metrics, and use cases**”, *IEEE Vehicular Technology Magazine*, Jun 2021. (04)

[M19] Z. Sadreddini, H. Yanikomeroglu, “**A novel centralized cloud-based mobile data rollover management**”, *IEEE Wireless Communications Magazine*, Apr 2021.

[M18] C.E. Kement, B. Tavli, H. Gultekin, H. Yanikomeroglu, “**Holistic privacy for electricity, water, and natural gas metering in next generation smart homes**”, *IEEE Communications Magazine*, Mar 2021. (04)

[M17] M.S. Alam, G. Karabulut Kurt, H. Yanikomeroglu, P. Zhu, N.-D. Dao, “**High altitude platform station based super macro base station constellations**”, *IEEE Communications Magazine*, Jan 2021. (67)

[M16] S. Alfattani, W. Jaafar, Y. Hmamouche, H. Yanikomeroglu, A. Yongacoglu, N.D. Dao, P. Zhu, “**Aerial platforms with reconfigurable smart surfaces for 5G and beyond**”, *IEEE Communications Magazine*, Jan 2021. (56)

IEEE Magazine Papers – 2020

[M15] K. Tekbiyik, A.R. Ekti, G. Karabulut Kurt, A. Gorcin, H. Yanikomeroglu, “A holistic investigation on terahertz propagation and channel modeling toward vertical heterogeneous networks”, *IEEE Communications Magazine*, Nov 2020. (34)

[M14] R. Alkurd, I. Abualhaol, H. Yanikomeroglu, “Big-data-driven and AI-based framework to enable personalization in wireless networks”, *IEEE Communications Magazine*, Mar 2020. (18)

IEEE Magazine Papers – 2019

[M13] C. Altun, B. Tavli, H. Yanikomeroglu, “**Liberalization of digital twins of IoT enabled home appliances via blockchains and absolute ownership rights**”, *IEEE Communications Magazine*, Dec 2019. (29)

[M12] H. Abou-Zeid, F. Pervez, A. Adinoyi, M. Aljlayl, H. Yanikomeroglu, “**Cellular V2X transmission for connected and autonomous vehicles: Standardization, applications, and enabling technologies**”, *IEEE Consumer Electronics Magazine*, Nov-Dec 2019. (37)

[M11] S. Andreev, V. Petrov, M. Dohler, H. Yanikomeroglu, “**Future of ultra-dense networks beyond 5G: Harnessing heterogeneous moving cells**”, *IEEE Communications Magazine*, Jun 2019. (113)

[M10] R.H. Gohary, H. Yanikomeroglu, “**Noncoherent MIMO signaling for block-fading channels: Approaches and challenges**”, *IEEE Vehicular Technology Magazine*, Mar 2019. (15)

[M09] I. Bor-Yaliniz, M. Salem, G. Senerath, H. Yanikomeroglu, “**Is 5G ready for drones?: A look into contemporary and prospective wireless networks from a standardization perspective**”, *IEEE Wireless Communications Magazine*, Feb 2019. (92)

[M08] V. Petrov, K. Mikhaylov, D. Moltchanov, S. Andreev, G. Fodor, J. Torsner, H. Yanikomeroglu, M. Juntti, Y. Kouchevsky, “**When IoT keeps people in the loop: A path towards a new global utility**”, *IEEE Communications Magazine*, Jan 2019. (53)

IEEE Magazine Papers

IEEE Magazine Papers – 2018 and Before

[M07] M. Alzenad, M.Z. Shakir, H. Yanikomeroglu, M.-S. Alouini, “**FSO-based vertical backhaul/fronthaul framework for 5G+ wireless networks**”, *IEEE Communications Magazine*, Jan 2018. (411)

[M06] I. Bor-Yaliniz, H. Yanikomeroglu, “**The new frontier in RAN heterogeneity: Multi-tier drone-cells**”, *IEEE Communications Magazine*, Nov 2016. (469)

[M05] S. Andreev, O. Galinina, A. Pyattaev, J. Hosek, P. Masek, H. Yanikomeroglu, Y. Koucheryavy, “**Exploring synergy between communications, caching, and computing in 5G-grade deployments**”, *IEEE Communications Magazine*, Aug 2016. (91)

[M04] M. Mirahsan, R. Schoenen, H. Yanikomeroglu, G. Senerath, N.-D. Dao, “**User-in-the-loop for HetHetNets with backhaul capacity constraints**”, *IEEE Wireless Communications Mag.*, Oct 2015. (21)

[M03] M.N. Tehrani, M. Uysal, H. Yanikomeroglu, “**Device-to-device communication in 5G cellular networks: Challenges, solutions and future directions**”, *IEEE Communications Mag.*, May 2014. (1181)

[M02] R. Schoenen, H. Yanikomeroglu, “**User-in-the-loop: Spatial and temporal demand shaping for sustainable wireless networks**”, *IEEE Communications Magazine*, Feb 2014. (50)

[M01] R. Pabst, B.H. Walke, D.C. Schultz, P. Herhold, H. Yanikomeroglu, S. Mukherjee, H. Viswanathan, M. Lott, W. Zirwas, M. Dohler, H. Aghvami, D.D. Falconer, G.P. Fettweis, “**Relay-based deployment concepts for wireless and mobile broadband radio**”, *IEEE Communications Magazine*, Sep 2004. (2313)