### List of Publications – Halim Yanikomeroglu (updated on 23 Jan 2022)

(Please report incorrect or incomplete information to halim@sce.carleton.ca)

[DBLP](http://dblp.org)  
[Google Scholar](https://scholar.google.com)

#### Breakdown of 225 Published Journal Papers

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<th>No of papers</th>
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#### Submissions under Review


Omid Abbasi and Halim Yanikomeroglu, “UxNB-Enabled cell-free massive MIMO with HAPS-assisted sub-THz backhauling”, under review in IEEE Transactions on Wireless Communications (submission: 05 Dec 2021). [arXiv] [ResearchGate]


Refereed Publications

2022


2021 (47 IEEE journal papers + 20 conference papers)


[J200] Yucel Aydin, Gunes Karabulut Kurt, Enver Ozdemir, and Halim Yanikomeroglu, “Group handover for drone base stations”, IEEE Internet of Things Journal, vol. 8, no. 18, pp. 13876-13887, 15 September 2021. [arXiv] [ResearchGate] [Xplore]


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Mehmet Cagri Ilter, Risto Wichman, Jyri Hamalainen, Halim Yanikomeroglu, and Hong-Chuan Yang, “Data-oriented view for convolutional coding with adaptive irregular constellations”, *IEEE Communications Letters*, vol. 25, no. 6, pp. 1771-1775, June 2021. [ResearchGate] [Xplore]

Haitham S. Khallaf, Murat Uysal, Kazutoshi Kato, Ehab Mahmoud Mohamed, Sadiq M. Sait, and Halim Yanikomeroglu, “Composite fading model for aerial MIMO FSO links in the presence of atmospheric turbulence and pointing errors”, *IEEE Wireless Communications Letters*, vol. 10, no. 6, pp. 1295-1299, June 2021. [ResearchGate] [Xplore]

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Gunes Karabulut Kurt, Mohammad G. Khoshkolgh, Safwan Alfattani, Ahmed Ibrahim, Tasneem S. J. Darwish, Md Sahabul Alam, Halim Yanikomeroglu, and Abbas Yongacoglu, “A vision and framework for the high altitude platform station (HAPS) networks of the future”, *IEEE Communications Surveys and Tutorials*, vol. 23, no. 2, pp. 729-779, Secondquarter 2021. [arXiv] [ResearchGate] [Xplore]

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Ahmet Emir, Ferdi Kara, Hakan Kaya, and Halim Yanikomeroglu, “DeepMuD: Multi-user detection for uplink grant-free NOMA IoT networks via deep learning”, *IEEE Wireless Communications Letters*, vol. 10, no. 5, pp. 1133-1137, May 2021. [arXiv] [ResearchGate] [Xplore]

Zhaleh Sadreddini and Halim Yanikomeroglu, “A novel centralized cloud-based mobile data rollover management”, *IEEE Wireless Communications Magazine*, vol. 28, no. 2, pp. 166-171, April 2021. [ResearchGate] [Xplore]

Cihan Emre Kement, Bulent Tavli, Hakan Gultekin, and Halim Yanikomeroglu, “Holistic privacy for electricity, water, and natural gas metering in next generation smart homes”, *IEEE

Zhitong Xing, Kaiming Liu, Aditya S. Rajasekaran, Halim Yanikomeroglu, and Yuanan Liu, “A hybrid companding and clipping scheme for PAPR reduction in OFDM systems”, *IEEE Access*, vol. 9, pp. 61832-61852, 2021. [ResearchGate] [Xplore]

Zhaleh Sadreddini, Ilknur Donmez, and Halim Yanikomeroglu, “Cancel-for-any-reason insurance recommendation using customer transaction-based clustering”, *IEEE Access*, vol. 9, pp. 39363-39374, 2021. [ResearchGate] [Xplore]

Nesrine Cherif, Mohamed Alzenad, Halim Yanikomeroglu, and Abbas Yongacoglu, “Downlink coverage and rate analysis of an aerial user in vertical heterogeneous networks (VHetNets)”, *IEEE Transactions on Wireless Communications*, vol. 20, no. 3, pp. 1501-1516, March 2021. [arXiv] [ResearchGate] [Xplore]

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Qiqi Ren, Jian Chen, Omid Abbasi, Gunes Karabulut Kurt, Halim Yanikomeroglu, and F. Richard Yu, “An application-driven non-orthogonal multiple access enabled computation offloading scheme”, *IEEE Internet of Things Journal*, vol. 8, no. 3, pp. 1453-1466, February 1, 2021. [arXiv] [ResearchGate] [Xplore]

Md Sahabul Alam, Gunes Karabulut Kurt, Halim Yanikomeroglu, Peiying Zhu, and Ngoc Dung Dao, “High altitude platform station based super macro base station constellations”, *IEEE
Communications Magazine, vol. 59, no. 1, pp. 103-109, January 2021. [arXiv] [ResearchGate] [Xplore]


[C282] Qiqi Ren, Omid Abbasi, Gunes Karabulut Kurt, Halim Yanikomeroglu, and Jian Chen, “High altitude platform station (HAPS) assisted computing for intelligent transportation systems”, IEEE Global Communications Conference (Globecom) 2021, 7–11 December 2021, Madrid, Spain.


[C280] Nadir Adam, Cristiano Tapparello, Wendi Heinzelman, and Halim Yanikomeroglu, “Utilizing ground nodes with multi-hop capabilities to extend the range of UAV-BSs”, IEEE 5G World Forum 2021, 13–15 October 2021, Virtual Event (Montreal, Canada). [ResearchGate] [Xplore]

[C279] Yucel Aydin, Gunes Karabulut Kurt, Enver Ozdemir, and Halim Yanikomeroglu, “Group authentication for drone swarms”, IEEE International Conference on Wireless for Space and Extreme Environments (WiSEE 2021), 12–14 October 2021, Virtual Event (Cleveland, Ohio, USA). [arXiv] [ResearchGate] [Xplore]

[C278] Musa Otaru, Abdulkareem Adinoyi, Mohammed Ajiya, Mohammed Aljlayl and Halim Yanikomeroglu, “Modified ARQ-based cooperative relaying scheme for a delay tolerant network”, International Conference on Electrical, Computer, Communications and Mechatronics Engineering (ICECCME 2021), 07–08 October 2021, Mauritius. [ResearchGate] [Xplore]

and Mobile Radio Communications (PIMRC) 2021, 13–16 September 2021 || Virtual Conference. [arXiv] [ResearchGate] [Xplore]


[C274] Rawan Alkurd, Ibrahim Abualhaol, and Halim Yanikomeroglu, “User satisfaction prediction framework for personalized wireless networks: A DNN approach”, IEEE International Conference on Communications Workshops (ICCW) 2021, 14–18 June 2021, Montreal, Quebec, Canada || Virtual Conference. [Xplore]

[C273] Mohammed Younis Abdelsadek, Halim Yanikomeroglu, and Gunes Karabulut Kurt, “Future ultra-dense LEO satellite networks: A cell-free massive MIMO approach”, IEEE International Conference on Communications Workshops (ICCW) 2021, 14–18 June 2021, Montreal, Quebec, Canada || Virtual Conference. [arXiv] [ResearchGate] [Xplore]

[C272] Nesrine Cherif, Wael Jaafar, Halim Yanikomeroglu, and Abbas Yongacoglu, “Disconnectivity-aware energy-efficient cargo-UAV trajectory planning with minimum handoffs”, IEEE International Conference on Communications (ICC) 2021, 14–18 June 2021, Montreal, Quebec, Canada || Virtual Conference. [arXiv] [ResearchGate] [Xplore]

[C271] Mohammad G. Khoshkholgh and Halim Yanikomeroglu, “RSS-based UAV-BS 3-D mobility management via policy gradient deep reinforcement learning”, IEEE International Conference on Communications (ICC) 2021, 14–18 June 2021, Montreal, Quebec, Canada || Virtual Conference. [arXiv] [ResearchGate] [Xplore]

[C270] Kursat Tekbiyik, Gunes Karabulut Kurt, Chongwen Huang, Ali Riza Ekti, Halim Yanikomeroglu, “Channel estimation for full-duplex RIS-assisted HAPS backhauling with graph attention networks”, IEEE International Conference on Communications (ICC) 2021, 14–18 June 2021, Montreal, Quebec, Canada || Virtual Conference. [arXiv] [ResearchGate] [Xplore]

[C269] Islam Abu Mahady, Ebrahim Bedeer, Salama Ikki, and Halim Yanikomeroglu, “NOMA spectral efficiency maximization with improper Gaussian signaling and SIC imperfection”, IEEE International Conference on Communications (ICC) 2021, 14–18 June 2021, Montreal, Quebec, Canada || Virtual Conference. [Xplore]

[C268] Mohammad G. Khoshkholgh and Halim Yanikomeroglu, “Power control in spectrum sharing systems with almost-zero inter-system signaling overhead”, IEEE International
Aybuke Cengiz, Semiha Tedik Basaran, Berna Ozbek, Gunes Karabulut Kurt, and Halim Yanikomeroglu, “Approximation of correlation matrix for high altitude platform stations”, The 29th IEEE Conference on Signal Processing and Communications Applications (SIU 2021), 9–11 June 2021 || Virtual Conference. [Xplore]

[266] Olfa Ben Yahia, Eylem Erdogan, Gunes Karabulut Kurt, Ibrahim Altunbas, and Halim Yanikomeroglu, “Physical layer security framework for optical non-terrestrial networks”, Invited Paper, 28th International Conference on Telecommunications (ICT 2021), 1-3 June 2021 || Virtual Conference. [arXiv] [ResearchGate] [Xplore]


[264] Omid Abbasi and Halim Yanikomeroglu, “Rate-splitting and NOMA-enabled uplink user cooperation”, IEEE Wireless Communications and Networking Conference Workshops (WCNCW) 2021, 29 March – 01 April 2021, Nanjing, China | hybrid. [ResearchGate] [Xplore]

[263] Nadir Adam, Cristiano Tapparello, Wendi Heinzelman, and Halim Yanikomeroglu, “Placement optimization of multiple UAV base stations”, IEEE Wireless Communications and Networking Conference (WCNC) 2021, 29 March – 01 April 2021, Nanjing, China | hybrid. [ResearchGate] [Xplore]

[2020 (21 IEEE journal papers + 12 conference papers)]


[J159] Omid Abbasi, Halim Yanikomeroglu, Afshin Ebrahimi, and Nader Mokari, “Trajectory design and power allocation for drone-assisted NR-V2X network with dynamic NOMA/OMA”, IEEE Transactions on Wireless Communications, vol. 19, no. 11, pp. 7153-7168, November 2020. [arXiv] [ResearchGate] [Xplore]


[J157] Lina Bariah, Sami Muhaidat, Paschalis Sofotasios, Sanjeev Gurugopinath, Walaa Hamouda, and Halim Yanikomeroglu, “Non-orthogonal multiple access in the presence of additive generalized Gaussian noise”, IEEE Communications Letters, vol. 24, no. 10, pp. 2137-2141, October 2020. [arXiv] [ResearchGate] [Xplore]


Transactions on Vehicular Technology, vol. 69, no. 8, pp. 8499-8513, August 2020. [ResearchGate] [Xplore]


[C262] Nesrine Cherif, Wael Jaafar, Halim Yanikomeroglu, and Abbas Yongacoglu, “On the optimal 3D placement of a UAV base station for maximal coverage of UAV users”, IEEE Global Communications Conference (Globecom) 2020, 07–11 December 2020, Taipei, Taiwan. [arXiv] [ResearchGate] [Xplore]

[C261] Oussama Ghdiri, Wael Jaafar, Safwan Alfattani, Jihene Ben Abderrazak, and Halim Yanikomeroglu, “Energy-efficient multi-UAV data collection for IoT networks with time deadlines”, IEEE Global Communications Conference (Globecom) 2020, 07–11 December 2020, Taipei, Taiwan. [arXiv] [ResearchGate] [Xplore]
Halim Yanikomeroglu, “Wireless access architecture: The next 20+ years”, *ACM International Conference on Future Networks and Distributed Systems (ICFNDSD)*, November 2020, Article No: 40, Pages 1, 26–27 November 2020, St. Petersburg, Russia. [ResearchGate] [ACM]

Ozan Alp Topal, Gunes Karabulut Kurt, and Halim Yanikomeroglu, “Securing the inter-spacecraft links: Doppler frequency shift based physical layer key generation”, *The 8th Annual IEEE International Conference on Wireless for Space and Extreme Environments (WISEE 2020)*, 12–14 October 2020, Venice, Italy (online). [ResearchGate] [Xplore]


Yassine Hmamouche, Mustapha Benjilla, Samir Saudi, and Halim Yanikomeroglu, “Uplink coverage and handoff rate with realistic power control models and blind cell search”, *2020 IEEE 31st Annual International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, 31 August – 03 September 2020, London, UK (online). [HAL] [ResearchGate] [Xplore]

Monirosharieh Vamegheshtahbanati, Ian Marsland, Ramy H. Gohary, and Halim Yanikomeroglu, “Hypercube-based multidimensional constellation design for uplink SCMA systems”, *IEEE International Conference on Communications Workshops (ICCW) 2020*, 07–11 June 2020, Dublin, Ireland (online). [ResearchGate] [Xplore]

Irem Bor-Yaliniz, Gamini Senarath, and Halim Yanikomeroglu, “Aerial access nodes and virtual wireless access: A look into integration strategies”, *IEEE International Conference on Communications (ICC) 2020*, 07–11 June 2020, Dublin, Ireland (online). [ResearchGate] [Xplore]


Monirosharieh Vameghestahbanati, Ian D. Marsland, Ramy Gohary, Halim Yanikomeroglu, and Javad Abdoli, “How does channel coding affect the design of uplink SCMA multidimensional constellations?”, IEEE Wireless Communications and Networking Conference (WCNC) 2020, 25–28 May 2020, Seoul, South Korea (online). [ResearchGate] [Xplore]

2019 (21 IEEE journal papers + 18 conference papers)

Mohamed Alzenad and Halim Yanikomeroglu, “Coverage and rate analysis for vertical heterogeneous networks (VHetNets)”, IEEE Transactions on Wireless Communications, vol. 18, no. 12, pp. 5643-5657, December 2019. [ResearchGate] [Xplore]


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Monirosharieh Vameghestahbanati, Ian Marsland, Ramy H. Gohary, and Halim Yanikomeroglu, “Multidimensional constellations for uplink SCMA systems – A comparative study”, IEEE Communications Surveys & Tutorials, vol. 21, no. 3, pp. 2169-2194, Third Quarter 2019. [arXiv] [ResearchGate] [Xplore]

Hossein Vaezy, Mohammad Javad Omidi, Mohammad Mahdi Naghsh, and Halim Yanikomeroglu, “Energy efficient transceiver design in MIMO interference channels: The selfish,
unselfish, worst-case, and robust methods”, *IEEE Transactions on Communications*, vol. 67, no. 8, pp. 5377-5389, August 2019. [ResearchGate] [Xplore]


[J135] Hossein Vaezy, Mohammad Javad Omid, and Halim Yanikomeroglu, “Energy efficient precoder design in multi-user MIMO systems with imperfect channel state information”, *IEEE Wireless Communications Letters*, vol. 8, no. 3, pp. 669-672, June 2019. [arXiv] [ResearchGate] [Xplore]


[J133] Saeede Enayati, Hamid Saeedi, Hossein Pishro-Nik, and Halim Yanikomeroglu, “Moving aerial base station networks: Stochastic geometry analysis and design perspectives”, *IEEE Transactions on Wireless Communications*, vol. 18, no. 6, pp. 2977-2988, June 2019. [ResearchGate] [Xplore]

[J132] Xiaohui Zhou, Jing Guo, Salman Durrani, and Halim Yanikomeroglu, “Underlay drone cell for temporal events: Impact of drone height and aerial channel environments”, *IEEE Internet of Things Journal*, vol. 6, no. 2, pp. 1704-1718, April 2019. [arXiv] [ResearchGate] [Xplore]

[J131] Hossein Khoshnevis, Ian Marsland, and Halim Yanikomeroglu, “Throughput-based design for polar coded-modulation”, *IEEE Transactions on Communications*, vol. 67, no. 3, pp. 1770-1782, March 2019. [arXiv] [ResearchGate] [Xplore]


[J128] Irem Bor-Yaliniz, Mohamed Salem, Gamini Senarath, and Halim Yanikomeroglu, “Is 5G ready for drones?: A look into contemporary and prospective wireless networks from a standardization perspective”, *IEEE Wireless Communications Magazine*, vol. 26, no. 1, pp. 18-27, February 2019. [ResearchGate] [Xplore]


[C249] Nesrine Cherif, Mohamed Alzenad, Halim Yanikomeroglu, and Abbas Yongacoglu, “Downlink coverage analysis of an aerial user in vertical heterogeneous networks”, IEEE Global Communications Conference (Globecom) 2019, 09–13 December 2019, Waikoloa, Hawaii, USA. [Xplore]


[C240] Amin Farajzadeh, Ozgur Ercetin, and Halim Yanikomeroglu, “UAV data collection over NOMA backscatter networks: UAV altitude and trajectory optimization”, IEEE International Conference in Communications (ICC) 2019, Shanghai, China, 20–24 May 2019. [ResearchGate] [Xplore]


Cihan Tugrul Cicek, Hakan Gultekin, Bulent Tavli, and Halim Yanikomeroglu, “UAV Base station location optimization for next generation wireless networks: Overview and future research directions”, *IEEE VUVS-Oman 2019*, Muscat, Oman, 5–7 February 2019. [arXiv] [ResearchGate] [Xplore]

2018 (15 IEEE journal papers + 10 conference papers)

**[J124]** Jing Guo, Xiangyun Zhou, Salman Durrani, and Halim Yanikomeroglu, “Design of non-orthogonal multiple access enhanced backscatter communication”, *IEEE Transactions on Wireless Communications*, vol. 17, no. 10, pp. 6837-6852, October 2018. [arXiv] [ResearchGate] [Xplore]

**[J123]** Xianbin Cao, Peng Yang, Mohamed Alzenad, Xing Xi, Dapeng Wu, and Halim Yanikomeroglu, “Airborne communication networks: A survey”, *IEEE Journal on Selected Areas in Communications*, vol. 36, no. 9, pp. 1907-1926, September 2018. [ResearchGate] [Xplore]

**[J122]** Mehmet Cagri Ilter and Halim Yanikomeroglu, “Convolutionally coded SNR-adaptive transmission for low-latency communications”, *IEEE Transactions on Vehicular Technology*, vol. 67, no. 9, pp. 8964-8968, September 2018. [arXiv] [ResearchGate] [Xplore]

**[J121]** Faraj Lagum, Irem Bor-Yaliniz, and Halim Yanikomeroglu, “Strategic densification with UAV-BSs in cellular networks”, *IEEE Wireless Communications Letters*, vol. 7, no. 3, pp. 384-387, June 2018. [ResearchGate] [Xplore]


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communications”, *IEEE Transactions on Wireless Communications*, vol. 17, no. 5, pp. 3401-3416, May 2018. [ResearchGate] [Xplore]


[J114] Rozita Rashtchi, Ramy H. Gohary, and Halim Yanikomeroglu, “Conjoint routing and resource allocation in OFDMA-based D2D wireless networks”, *IEEE Access*, vol. 6, pp. 18,868-18,882, 2018. [ResearchGate] [Xplore]

[J113] Mohamed Alzenad, Amr El-Keyi, and Halim Yanikomeroglu, “3D placement of an unmanned aerial vehicle base station for maximum coverage of users with different QoS requirements”, *IEEE Wireless Communications Letters*, vol. 7, no. 1, pp. 38-41, February 2018. [arXiv] [ResearchGate] [Xplore]


[C229] Mehmet Cagri Ilter, Risto Wichman, Jyri Hamalainen, and Halim Yanikomeroglu, “A
convolutionally encoded OSTBC system with SNR-adaptive constellations for low-latency and low-complexity communications”, 19th IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC 2018), 25–28 June 2018, Kalamata, Greece. [ResearchGate] [Xplore]

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[C226] Taimour Aldalgamouni, Mehmet Cagri Ilter, Osamah S. Badarneh, and Halim Yanikomeroglu, “Performance analysis of Fisher-Snedecor F composite fading channels”, IEEE Middle East and North Africa Communications Conference (MENACOMM) 2018, 18–20 April 2018, Jounieh, Lebanon. [ResearchGate] [Xplore]


[C224] Rozhina Ghanavi, Elham Kalantari, Maryam Sabbaghian, Halim Yanikomeroglu, and Abbas Yongacoglu, “Efficient 3D aerial base station placement considering users mobility by reinforcement learning”, IEEE Wireless Communications and Networking Conference (WCNC) 2018, 15–18 April 2018, Barcelona, Spain. [arXiv] [ResearchGate] [Xplore]

[C223] Fatima Ezzahra Airod, Houda Chafnaji, and Halim Yanikomeroglu, “Performance analysis of low latency multiple full-duplex selective decode and forward relays”, IEEE Wireless Communications and Networking Conference (WCNC) 2018, 15–18 April 2018, Barcelona, Spain. [arXiv] [ResearchGate] [Xplore]

2017 (23 IEEE journal papers + 16 conference papers)


QoS-aware joint user association, resource block and discrete power allocation in HetNets”, *IEEE Transactions on Wireless Communications*, vol. 16, no. 11, pp. 7603-7618, November 2017. [ResearchGate] [Xplore]


[J104] Yaser M. M. Fouad, Ramy H. Gohary, and Halim Yanikomeroglu, “Number-theoretic sequence design for uncoordinated autonomous multiple access in relay-assisted machine-type communications”, *IEEE Transactions on Vehicular Technology*, vol. 66, no. 10, pp. 9018-9034, October 2017. [ResearchGate] [Xplore]

[J103] Jing Guo, Salman Durrani, Xiangyun Zhou, and Halim Yanikomeroglu, “Massive machine type communication with data aggregation and resource scheduling”, *IEEE Transactions on Communications*, vol. 65, no. 9, pp. 4012-4026, September 2017. [arXiv] [ResearchGate] [Xplore]


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