Curriculum Vitae of Muhsin Caner GÖKÇE

Personal Information:

Date of Birth	January 1985
Citizenship	Turkish
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Title	Associate Professor

Education:

Ph.D. (2016)	Çankaya University, Electronic and Communication Engineering, Ankara, Turkey, GPA: 3.88 / 4. Thesis Title: "*Beam Shaping effects on MIMO Free-Space Optical Communication Systems*"
M.Sc. (2012)	Ankara University, Electrical and Electronics Engineering, Ankara, Turkey, GPA: 3.43 / 4. Thesis Title: "*Scintillation Analysis and Evaluation of super Lorentz-Gaussian Laser Beams for Optical Wireless*".
B.Sc. (2010)	Çankaya University, Computer Engineering (Double Major), Ankara, Turkey.
B.Sc. (2009)	Çankaya University, Electronic and Communication Engineering, Ankara, Turkey, GPA 3.60 / 4 High Honour. Thesis Title: "*Target Tracking with Antenna Arrays*".

Awards&Achievements

2021	Associate Professor (September, 2021)
2015-2016	Teknogirişim Project 2015 (*High Data Rate Communication with Free Space Optics 0448. TGSD.2015*) from Ministry of Science, Industry and Technology
2014-2017	TUBITAK, Scholarship Program for PhD Students (2211)
2012- 2016	Scholarship from Çankaya University for Ph.D. Study
2011-2021	TUBITAK, Incentive Program for International Scientific Publications
2006-2009	Scholarship from Çankaya University for Undergraduate Study

Work Experience:

2022-	Associate Professor in TED University, Department of Electrical-Electronics Engineering.
2019-2021	Assistant Professor in TED University, Department of Electrical-Electronics Engineering.
2015-2020	MG Technology - FSO solutions.
2009-2018	Instructor in Çankaya University, Department of Electronic and Communication Engineering.

Publications:

SCI

[J49] Muhsin Caner Gökçe, Yahya Baykal, Yalçın Ata, "Coupling efficiency of multimode beam to fiber in atmospheric turbulence," *Journal of Quantitative Spectroscopy and Radiative Transfer,* March 2023 (Accepted).

[J48] Muhsin Caner Gökçe, Yalçın Ata, Yahya Baykal, "Fiber-coupling efficiency in ocean with adaptive optics corrections," *Journal of the Optical Society of America B,* March 2023 (Accepted).

[J47] Yalçın Ata, Muhsin Caner Gökçe, Yahya Baykal, "Modulation transfer function variation through anisotropic turbulence in biological tissue," *Journal of the Optical Society of America B,* Feb. 2023. (Accepted).

[J46] Yahya Baykal, Muhsin Caner Gökçe, Yalçın Ata, and Hamza Gerçekcioğlu, "Correlation of multimode fields in atmospheric turbulence," *Journal of the Optical Society of America A*, vol. 40, no. 3, pp. 462-469, Feb. 2023.

[J45] Yalçın Ata, Yahya Baykal, Muhsin Caner Gökçe, "Structure functions for optical waves in a complex medium of turbulent biological tissues," *Journal of the Optical Society of America A,* vol. 39, no. 12, pp. 2271-2281, Dec. 2022.

[J44] M. C. Gökçe, Y. Baykal and Y. Ata, "Fiber-Coupling Efficiency of Laser Array Beam From Turbulent Atmosphere to Fiber Link," in *Journal of Lightwave Technology*, vol. 41,

no. 1, pp. 59-65, Jan. 2023.

[J43] Yahya Baykal, Yalçın Ata, and Muhsin C. Gökçe, "Laser array field correlations in underwater turbulence", *Journal of Modern Optics*, vol. 69, no. 22, Dec. 2022.

[J42] Yahya Baykal, Yalçın Ata, Muhsin Caner Gökçe, "Tip and tilt corrected bit error rate improvement of M-ary pulse position modulated optical wireless communication in marine atmosphere," *Waves in Random and Complex Media*, (Accepted)

[J41] Yahya Baykal, Yalçın Ata, Muhsin Caner Gökçe, "Underwater Turbulence, its Effects on Optical Wireless Communication and Imaging: A Review*," Optics and Laser Technology*, vol. 156, pp. 108642 (27pp), December 2022.

[J40] Muhsin Caner Gökçe, Yalçın Ata, Yahya Baykal, "Performance evaluation of aeronautical uplink/downlink free-space optical communication system with adaptive optics over gamma-gamma turbulence channel," *Journal of Optics*, vol. 24, no. 10, pp. 10560 (12pp), September 2022.

[J39] Yalçın Ata, Muhsin Caner Gökçe, Yahya Baykal, "Intensity fluctuations in biological tissues at any turbulence strength," *Physica Scripta*, vol. 97, no. 9, pp. 095501 (12pp), August 2022.

[J38] Yalçın Ata, Muhsin Caner Gökçe, Yahya Baykal, "Mitigation of atmospheric turbulence on up and downlink optical communication systems using receiver diversity and adaptive optics," *Optical and Quantum Electronics*, vol. 54, pp. 659 (19pp), August 2022.

[J37] Yalçın Ata, Yahya Baykal, Muhsin Caner Gökçe, "Analysis of wander and spreading of optical beam by using oceanic turbulence optical power spectrum," *Journal of the Optical Society of America B*, vol. 39, no. 8, pp. 2129-2137, July 2022.

[J36] Yalçın Ata, Yahya Baykal, Muhsin Caner Gökçe, "Performance of free-space optical communication system

employing receive diversity techniques in anisotropic atmospheric non-Kolmogorov turbulence," *Journal of the Optical Society of America B*, vol. 39, no. 8, pp. 2100-2108, July 2022.

[J35] Volkan Akbucak, Görkem Aymelek, Begüm Yolcu, Orkun Kayam, Onur Ünal, Muhsin Caner Gökçe, Yahya Baykal, "Effect of partial coherence on signal-to-noise ratio performance of free space optical communication system in weak turbulence", *Optics Communications*, vol. 518, pp. 128395 (7pp), May 2022.

[J34] Yalçın Ata, Muhsin Caner Gökçe, Yahya Baykal, "Underwater Turbulence Effect on Optical Imaging," *Physica Scripta*, vol. 97, no. 5, pp. 055505 (11pp), March 2022.

[J33] Muhsin Caner Gökçe, Yahya Baykal, Yalçın Ata, "Effects of adaptive optics on bit error rate of *M*-ary PPM oceanic optical wireless communication systems with aperture averaging in strong turbulence," *Laser Physics*, vol. 31, no.11, pp. 115204 (11pp), November 2021.

[J32] Yalçın Ata, Yahya Baykal, Muhsin Caner Gökçe, "Adaptive optics compensation of *M*-ary pulse position modulated communication systems in anisotropic non-Kolmogorov turbulent atmosphere," *Optics Communications*, vol. 501, pp. 127379 (9pp), December 2021.

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[J30] Yahya Baykal, Yalçın Ata, and Muhsin Caner Gökçe, "Performance of *M*-ary pulse position modulated optical wireless communication systems in marine atmosphere," *Appl. Opt.,* vol. 60(8), pp. 2166-2170, March, 2021.

[J29] Muhsin Caner Gökçe, "Aperture Averaged Scintillation of Gaussian beam in strong oceanic turbulence," *Gazi University*

Journal of Science, vol 34(1), pp. 100-110, March 2021.

[J28] Muhsin Caner Gökçe, Yahya Baykal, Yalçın Ata, "Adaptive optics effect on performance of BPSK-SIM oceanic optical wireless communication systems with aperture averaging in weak turbulence," *Journal of Quantitative Spectroscopy and Radiative Transfer*, vol. 256, pp. 107335 (8pp), September 2020.

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[J25] Yahya Baykal, Muhsin Caner Gökçe, and Yalçın Ata, "Application of adaptive optics on bit error rate of *M*-ary pulse position modulated oceanic optical wireless communication Systems," *Laser Physics*, vol. 30, no. 7, pp. 076202 (8pp), May 2020.

[J24] Muhsin Caner Gökçe, Yahya Baykal, Yalçın Ata, "Effect of anisotropy on performance of *M*-ary phase shift keying subcarrier intensity modulated optical wireless communication links operating in strong oceanic turbulence," *Laser Phys. Letters*, vol. 17, no. 5, pp. 056002 (8pp), April 2020.

[J23] Muhsin Caner Gökçe, Yahya Baykal, Yalçın Ata, "Laser array beam propagation through liver tissue," *Journal of Visualization*, vol. 23, pp. 331-338, April 2020.

[J22] Muhsin Caner Gökçe, "Average capacity analysis of underwater optical wireless communication links over anisotropic strong oceanic turbulence channels," *J. Opt. Soc. Am. A*, vol. 36, no. 12, pp. 2040-2047, November 2019.

[J21] Muhsin Caner Gökçe, Yahya Baykal, Yalçın Ata, "Binary phase shift keying-subcarrier intensity modulation performance in weak oceanic turbulence," *Phys. Commun.*, vol. 37, pp. 100904, December 2019.

[J20] Yahya Baykal, Muhsin Caner Gökçe, Yalçın Ata, "Anisotropy effect on performance of subcarrier intensity modulated binary phase shift keying optical wireless communication links in weakly turbulent underwater channel", *J. Mod. Opt.*, vol. 66, no 19, pp. 1871-1875, October 2019.

[J19] Yalçın Ata, Yahya Baykal, and Muhsin Caner Gökçe, "Performance of *M*-ary pulse position modulation for aeronautical uplink communications in atmospheric turbulent medium," *Appl. Opt.*, vol. 58, no. 28, pp. 7909-7914, October 2019.

[J18] Yalçın Ata, Yahya Baykal, and Muhsin Caner Gökçe, "Average channel capacity in anisotropic atmospheric non-Kolmogorov turbulent medium," *Opt. Commun*., vol. 451, pp. 129-135, November 2019.

[J17] Muhsin Caner Gökçe, Yahya Baykal, and Yalçın Ata, "*M*-ary phase shift keying-subcarrier intensity modulation performance in strong oceanic turbulence," *Opt. Eng.*, vol. 58, no. 5, pp. 056105, May 2019.

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[J14] Yahya Baykal, Yalçın Ata, and Muhsin Caner Gökçe,

"Structure parameter of anisotropic atmospheric turbulence expressed in terms of anisotropy factors and oceanic turbulence parameters," *Appl. Opt.,* vol. 58, no. 2, pp. 454-460, Jan. 2019.

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[J12] Yalçın Ata, Yahya Baykal, Muhsin Caner Gökçe, "*M*-ary Pulse Position Modulation Performance in non-Kolmogorov Turbulent Atmosphere," *Appl. Opt*., vol. 57, no. 24, pp. 7006-7011, August 2018.

[J11] Muhsin Caner Gökçe, Yahya Baykal, Yalçın Ata, "Performance analysis of *M*-ary pulse position modulation in strong oceanic turbulence," *Opt. Commun.,* vol. 427, no. 15, pp. 573-577, November 2018.

[J10] Muhsin Caner Gökçe and Yahya Baykal, "Effects of liver tissue turbulence on propagation of annular beam," *Optik,* vol. 171, pp. 313-318, June 2018.

[J9] Muhsin Caner Gökçe and Yahya Baykal, "Aperture averaging in strong oceanic turbulence," *Opt. Commun.,* vol. 413, no. 7, pp. 196-199, April 2018.

[J8] Muhsin Caner Gökçe, Yahya Baykal "Aperture averaging and BER for Gaussian beam in underwater oceanic turbulence," *Opt. Commun.* vol. 410, no. 5, pp. 830-835. March 2018.

[J7] Muhsin Caner Gökçe, Yahya Baykal, and Murat Uysal, "Performance analysis of multiple-input multiple-output free-space optical systems with partially coherent Gaussian beams and finite-sized detectors," *Opt. Eng.,* vol. 55, no. 11, pp. 111607, November 2016.

[J6] Muhsin Caner Gökçe, Yahya Baykal, "Scintillation analysis of multiple-input single-output underwater optical links," *Appl. Opt*., vol. 55, no. 22, pp. 6130-6136, August 2016.

[J5] Muhsin Caner Gökçe, Yahya Baykal and Murat Uysal, "Bit

error rate analysis of MISO FSO systems," *Wave Random Complex*., vol. 26, no. 4, pp. 642-649, May 2016.

[J4] Muhsin Caner Gökçe, Yahya Baykal and Murat Uysal, "Aperture averaging in multiple-input single-output free space optical systems using partially coherent radial array beams," *J. Opt. Soc. Am. A* vol. 33, no. 6, pp. 1041-1048, June 2016.

[J3] Muhsin Caner Gökçe, Yahya Baykal, Canan Kamacıoğlu, and Murat Uysal, "Aperture averaging in MISO FSO systems," *Opt. Eng.,* vol. 54, no. 6, pp. 066103, June 2015.

[J2] M.C. Gökçe, F. Sari., F. Ozek, "Ber analysis for super Lorentz-Gaussian laser beams propagating in turbulent media," *J Fac. Eng. Archit. Gaz.* vol. 28, no. 4, pp. 705-710. 2013.

[J1] M.C. Gokce and H.T. Eyyuboglu, "Irradiance fluctuations of partially coherent super Lorentz Gaussian beams", *Opt. Commun.*, vol. 284, no. 20, pp. 4857-4861, 2011.

Conference

[C8] Ecenaz Özalp, Alp Eren Aydoğdu, Muhsin Caner Gökçe, Yahya Baykal, "Sualtı Kablosuz Optik Haberleşme Sistemleri için Kısmi Eş-Fazlı Lazer Dizi Demeti Sinyal-Gürültü Oranı Analizi," EMO İlk Bildiriler Konferansı, Ankara, Turkey, 10-11 July 2021.

[C7] Muhsin Caner Gökçe, "Adaptive Optics Effects on Average Channel Capacity of Oceanic Optical Wireless Communication Systems in Strong Turbulence," Global Power, Energy and Communication Conference (IEEE-GPECOM), İzmir, Turkey, 20-23 October 2020.

[C6] Muhsin Caner Gökçe, "Effect of Adaptive Optics on Average Channel Capacity of Underwater Optical Wireless Communication System," Innovations in Intelligent Systems and Applications Conference (IEEE-ASYU), İstanbul, Turkey, 15-17 October 2020.

[C5] Yahya Baykal, Yalçın Ata, and Muhsin Caner Gökçe, "Okyanus türbülansında lazer hüzme dizisi sintilasyonu (Laser

array beam scintillation in oceanic turbulence)", Signal Processing and Communications Applications Conference (IEEE-SIU), Gaziantep, Turkey, 5-7 October 2020.

[C4] Muhsin C. Gökçe, Yahya Baykal, and Murat Uysal, "Effect of partial coherence on MISO FSO systems," 2015 4th International Workshop in Optical Wireless Communications (IEEE-IWOW), İstanbul, Turkey, 07-08 September 2015.

[C3] Muhsin C. Gökçe, Canan Kamacıoğlu, Murat Uysal, and Yahya Baykal, "Performance analysis of MIMO FSO systems with radial array beams and finite sized detectors", SPIE Optics + Photonics, 2014 Optical Engineering + Application, Optical Design and Systems Engineering, Laser Beam Shaping XV (OP308) to be held during 17 - 21 August 2014 in San Diego, California, USA. SPIE Proc. A. M. J. van Eijk, C. C. Davis, and S. M. Hammel, Editors, 9224, 922409-1, 922409-13, 2014.

[C2] Muhsin C. Gökçe, Yahya. Baykal, Murat Uysal, "Effect of LED sources on the performance of MIMO FSO systems", Çankaya University Symposium MTS 7, Ankara, pp. 133-135, 2014.

[C1] K. Tugyan, Muhsin C. Gökçe, H.T. Eyyuboğlu, and E. Sermutlu, "Mühendislik uygulamalarında kullanılan çok katlı integralin sembolik çözümü". Çankaya University Symposium MTS 3, Ankara, pp. 371-380, 2010.

Skills:

Computer related

- Matlab, Simulink
- C, C++, Java
- Assembly
- Proteus
- HTML

Languages

- English: Advanced