IŞIK UNIVERSITY
Mechanical Engineering Department
Other Departments Academic Personnel Data Form

A. PERSONAL		
Title	Assistant Prof. Dr.	
Name	Farshad MİRAMİRKHANİ	
Birth Place / Year	Iran, 1989	
e-Mail / Personal Web Site	farshad.miramirkhani@isikun.edu.tr https://sites.google.com/view/fmiramirkhani	
Working Field(s)	Optical Wireless Communications VLC-based Medical Body Sensor Networks Indoor, Underwater, Infrared Communications	
Foreign Language(s)	Persian, English	
Department	Electrical-Electronics Engineering	
Program	Mechatronics Engineering	

B. EDUCATION			
Degree	**Year**	**Subject**	**Institution**
Doctorate	2018	Electrical and Electronics Engineering (Visible Light Communications)	Özyeğin University
Master of Science	2014	Electrical and Electronics Engineering (Communication Engineering)	University of Isfahan
Bachelor of Science	2011	Electrical and Electronics Engineering	University of Isfahan

C. ACADEMIC		
Title	**Year**	**Institution**
Assistant Professor	2019-Present	Isik University, Department of Electrical-Electronics Engineering

D. PROFESSIONAL EXPERIENCE	
a. Domestic	
Research Assistant	Communication Theory & Technologies Research Group (CT&T), Özyeğin University
Teaching Assistant	Communication Theory & Technologies Research Group (CT&T), Özyeğin University
b. Abroad	
Review Editor	Wireless Communications for Frontiers in Communications and Networks
Technical Program Committee Member	IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2023), Toronto, ON, Canada, Sept. 2023
Technical Program Committee Member	IEEE Workshop on Optical Wireless Technology for Enhanced Connectivity in 6G (co-located with IEEE PIMRC 2021), Helsinki, Finland, Sept. 2021
Technical Program Committee Member	17th International Conference on Wireless and Mobile Communications (ICWMC 2021), Nice, France, July 2021
Technical Program Committee Member	IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2021), Helsinki, Finland, Sept. 2021

Technical Program Committee Member	International Conference on Laser, Optics and Optoelectronic Technology (LOPET 2021), Xi'an, China, May 2021
Technical Program Committee Member	11th International Conference on Mobile Services, Resources, and Users (MOBILITY 2021), Valencia, Spain, May 2021
Technical Program Committee Member	IEEE 93rd Vehicular Technology Conference (VTC2021-Spring), Helsinki, Finland, Apr. 2021
Technical Program Committee Member	IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2020), London, UK, Sept. 2020
Technical Program Committee Member	IEEE Middle East & North Africa COMMunications (MENACOMM 2019) Conference, Manama, Bahrain, Nov. 2019
Technical Program Committee Member	International Conference on Innovation and Intelligence for Informatics, Computing, and Technologies (3ICT 2019), University of Bahrain, Bahrain, Sept. 2019
Technical Program Committee Member	IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2019), Istanbul, Turkey, Sept. 2019
Technical Program Committee Member	International Conference on Electrical Engineering (ELE 2018), Dubai, UAE, Feb. 2018
Reviewer	IEEE Communications Magazine
Reviewer	IEEE Vehicular Technology Magazine
Reviewer	IEEE Transactions on Communications
Reviewer	IEEE Transactions on Wireless Communications
Reviewer	IEEE Transactions on Signal Processing
Reviewer	IEEE Transactions on Vehicular Technology
Reviewer	IEEE Transactions on Intelligent Vehicles
Reviewer	IEEE Transactions on Green Communications and Networking
Reviewer	IEEE Transactions on Network and Service Management
Reviewer	IEEE/OSA Journal of Lightwave Technology
Reviewer	IEEE Photonics Journal
Reviewer	IEEE Access
Reviewer	IEEE Internet of Things Journal
Reviewer	IEEE Open Journal of the Communications Society
Reviewer	IEEE Sensors
Reviewer	IEEE Communications Letters
Reviewer	IEEE Wireless Communications Letters
Reviewer	IEEE Letters on Electromagnetic Compatibility Practice and Applications
Reviewer	IEEE Photonics Technology Letters
Reviewer	Chinese Optics Letters
Reviewer	Journal of the Optical Society of America A
Reviewer	IET Optoelectronics
Reviewer	IET Communications
Reviewer	The Journal of Engineering (IET)
Reviewer	Physical Communication (Elsevier)
Reviewer	International Journal of Electronics and Communications (Elsevier)
Reviewer	International Journal of Communication Systems (Wiley)
Reviewer	Optical and Quantum Electronics (Springer)
Reviewer	Smart Science (Taylor & Francis)
E. ADMINISTRATIVE EXPERIENCE	
a. At Işık University	
2022	Board Member of Departmental Assessment and Evaluation Committee

b. At Other Institutions/Companies	
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F. INTERESTED SUBJECTS
Optical Wireless Communications
VLC-based Medical Body Sensor Networks
Indoor Visible Light Communications
Vehicular Visible Light Communications
Underwater Visible Light Communications
Infrared Communications

G. INSTRUCTED COURSES	
a. Işık University (Own Department)	**b. Mechatronics Engineering Program**
EE582 Special Topics: Statistical Signal Processing	ELEC2205 Electrical Circuits
EE572 Wireless Communications	
EE501 Probability and Stochastic Processes	
ELEC4704 Communication Simulation Techniques and Laboratory	
ELEC4702 Digital Communication Systems	
ELEC3711 Introduction to Communication Systems	
ELEC3502 Simulation Tools	
ELEC2501 Signals and Systems	
ELEC2204 Electrical Circuits Laboratory	
ELEC2201 Circuit Theory I	
COMP1101 Introduction to Programming in MATLAB	

H. NUMBER OF SUPERVISED GRADUATE THESIS	
Master of Science	[MSc.3] Bilal Antaki, January 2024 - September 2025 M.Sc. Thesis: Intelligent Health Monitoring in 6G Networks: Machine Learning-Enhanced VLC-Based Medical Body Sensor Networks [MSc.2] Ahmed Hany Dalloul, August 2022 - July 2025 M.Sc. Thesis: Enabling 5G and 6G Technologies Through Millimeter-wave and VLC Integration for Enhanced Remote Health Monitoring Systems [MSc.1] Baris Donmez, February 2021 - February 2022 M.Sc. Thesis: Channel Modelling and Characterization for VLC-based Medical Body Sensor Networks
Doctorate	-

I. PUBLICATIONS

Type	SCI-Expanded International Journal Papers	Other International Journal Papers	National Referred Journal Papers	International Symposium Papers	National Symposium Papers	Books / Chapters in Books (Translations Incl.)
Numbers	23	1	2	23	-	2

SCI-Expanded Total Number of Citations	3132

Important Publications

B. Antaki, A. H. Dalloul, and F. Miramirkhani, “Intelligent Health Monitoring in 6G Networks: Machine Learning-Enhanced VLC-Based Medical Body Sensor Networks”, Sensors, vol. 25, no. 11: 3280, pp. 1-32, May 2025.

R. Bayat Rizi, A. R. Forouzan, F. Miramirkhani, and M. F. Sabahi, “Machine Learning-Driven Adaptive Modulation for VLC-Enabled Medical Body Sensor Networks”, Iranian Journal of Electrical and Electronic Engineering, Special Issue on Applications of Deep Learning in Electrical and Electronic Engineering (ADLEEE), vol. 20, no. 4, pp. 1-11, Dec. 2024.
A. H. Dalloul, F. Miramirkhani, and L. Kouhalvandi, “A Review of Recent Innovations in Remote Health Monitoring”, Micromachines, vol. 14, no. 12: 2157, pp. 1-22, Dec. 2023.
F. Miramirkhani, T. Baykas, M. Elamassie, and M. Uysal, “IEEE 802.11bb Reference Channel Models for Light Communications”, IEEE Communications Standards Magazine, vol. 7, no. 4, pp. 84-89, Dec. 2023.
F. Miramirkhani, M. Karbalayghareh, E. Zeydan, and R. Mitra, “Enabling 5G Indoor Services for Residential Environment using VLC Technology”, Physical Communication, vol. 53, pp. 101679, Aug. 2022.
B. Donmez, R. Mitra, and F. Miramirkhani, “Channel Modeling and Characterization for VLC-based Medical Body Sensor Networks: Trends and Challenges”, IEEE Access, vol. 9, pp. 153401-153419, Nov. 2021.
F. Miramirkhani, M. Karbalayghareh, and M. Uysal, “Effect of Scattering Phase Function on Underwater Visible Light Communication Channel Models”, Physical Communication, vol. 48, pp. 101410, Oct. 2021.
F. Miramirkhani, M. Karbalayghareh, and R. Mitra, “Least Minimum Symbol Error Rate based Post-Distortion for Adaptive Mobile VLC Transmission with Receiver Selection”, Physical Communication, vol. 47, pp. 101353, Aug. 2021.
K. R. Sekhar, F. Miramirkhani, R. Mitra, and A. C. Turlapaty, “Generic BER Analysis of VLC Channels Impaired by 3D User-Mobility and Imperfect CSI”, IEEE Communications Letters, vol. 25, no. 7, pp. 2319-2323, Jul. 2021.
R. Mitra, F. Miramirkhani, V. Bhatia, and M. Uysal, “Low Complexity Least Minimum Symbol Error Rate based Post-Distortion for Vehicular VLC”, IEEE Transactions on Vehicular Technology, vol. 69, no. 10, pp. 11800-11810, Oct. 2020.
M. Karbalayghareh, F. Miramirkhani, H. B. Eldeeb, R. C. Kizilirmak, S. M. Sait, and M. Uysal, “Channel Modelling and Performance Limits of Vehicular Visible Light Communication Systems”, IEEE Transactions on Vehicular Technology, vol. 69, no. 7, pp. 6891-6901, Jul. 2020.
F. Miramirkhani, and M. Uysal, “Channel Modelling for Indoor Visible Light Communications”, Philosophical Transactions of the Royal Society A, Special Issue on The Cross-Disciplinary Challenges towards Mobile Optical Wireless Networks, vol. 378, no. 2169, pp. 1-35, Mar. 2020.
H. Abuella, F. Miramirkhani, S. Ekin, M. Uysal, and S. Ahmed, “ViLDAR-Visible Light Sensing Based Speed Estimation using Vehicle's Headlamps”, IEEE Transactions on Vehicular Technology, vol. 68, no. 11, pp. 10406-10417, Nov. 2019.
O. Narmanlioglu, R. C. Kizilirmak, F. Miramirkhani, S. Safaraliev, S. M. Sait, and M. Uysal, “Effect of Wiring and Cabling Topologies on the Performance of Distributed MIMO OFDM VLC Systems”, IEEE Access, vol. 7, pp. 52743-52754, Apr. 2019.
R. Mitra, F. Miramirkhani, V. Bhatia, and M. Uysal, “Mixture-Kernel Based Post-Distortion in RKHS for Time-Varying VLC Channels”, IEEE Transactions on Vehicular Technology, vol. 68, no. 2, pp. 1564-1577, Feb. 2019.
M. Elamassie, F. Miramirkhani, and M. Uysal, “Performance Characterization of Underwater Visible Light Communication”, IEEE Transactions on Communications, vol. 67, no. 1, pp. 543-552, Jan. 2019.
F. Miramirkhani, M. Uysal, O. Narmanlioglu, M. Abdallah, and K. Qaraqe, “Visible Light Channel Modeling for Gas Pipelines”, IEEE Photonics Journal, vol. 10, no. 2, pp. 1-10, Apr. 2018.
F. Miramirkhani, and M. Uysal, “Visible Light Communication Channel Modeling for Underwater Environments with Blocking and Shadowing”, IEEE Access, vol. 6, pp. 1082-1090, Feb. 2018.
A. Yesilkaya, E. Basar, F. Miramirkhani, E. Panayirci, M. Uysal, and H. Haas, “Optical MIMO-OFDM with Generalized LED Index Modulation”, IEEE Transactions on Communications, vol. 65, no. 8, pp. 3429-3441, Aug. 2017.

O. Narmanlioglu, R. C. Kizilirmak, F. Miramirkhani, and M. Uysal, "Cooperative Visible Light Communications with Full-Duplex Relaying", IEEE Photonics Journal, vol. 9, no. 3, pp. 1-11, Jun. 2017.
F. Miramirkhani, O. Narmanlioglu, M. Uysal, and E. Panayirci, "A Mobile Channel Model for VLC and Application to Adaptive System Design", IEEE Communications Letters, vol. 21, no. 5, pp. 1035-1038, May 2017.
M. Uysal, F. Miramirkhani, O. Narmanlioglu, T. Baykas, and E. Panayirci, "IEEE 802.15.7r1 Reference Channel Models for Visible Light Communications", IEEE Communications Magazine, vol. 55, no. 1, pp. 212-217, Jan. 2017.
F. Miramirkhani, and M. Uysal, "Channel Modeling and Characterization for Visible Light Communications", IEEE Photonics Journal, vol. 7, no. 6, pp. 1-16, Dec. 2015.

J. RESEARCH EXPERIENCE

Number of Projects	DPT Projects	TÜBİTAK Projects	SANTEZ Projects	BAP Projects	EU Projects	Other Projects
As Supervisor	-	-	-	1	-	-
As Researcher	-	4	-	-	-	-

K. REFERREING

Type	SCI Journals	Other Journals		Symposiums		R & D Projects		
		National	International	National	International	ARDEB	TEYDEB	International
Numbers	125	2	-	-	22	-	-	-

L. INTELLECTUAL PROPERTIES

Patents	Utility Models	Industrial Designs	Other
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M. PROFFESIONAL ASSOCIATION MEMBERSHIPS

Institute of Electrical & Electronics Engineers (IEEE): Senior Member
The Optical Society of America (OSA): Member
The International Society for Optics and Photonics (SPIE): Early Career Professional

N. OTHER USEFUL INFORMATION (if any)

Top 2% of Scientists Worldwide in the 2024 list of Stanford University, Sept. 2025
Top 2% of Scientists Worldwide in the 2024 list of Stanford University, Sept. 2024
Top 2% of Scientists Worldwide in the 2023 list of Stanford University, Oct. 2023
"IEEE Working Group Award" by the leadership of IEEE 802.11bb-2023 for my contributions to this important standard, Oct. 2023
Elevation to the grade of IEEE Senior Member, June 2023
2020 Board of Trustees Outstanding Scientific Achievement Award in the Faculty of Engineering, Isik University, Istanbul, Turkey, June 2021
The 2019 IEEE Turkey Ph.D. Thesis Award, Istanbul, Turkey, Feb. 2020
The 2019 Ord. Prof. Bedri Karafakioglu Research Incentive Award, Istanbul Technical University, Istanbul, Turkey, Oct. 2019
Best Paper Award, IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom 2019), Sochi, Russia, Jun. 2019
IEEE Standard Reference Channel Models, Dec. 2018
Best Research Assistant Award of the Graduate School of Engineering, Ozyegin University, Istanbul, Turkey, Aug. 2018

IEEE Standard Reference Channel Models, Sept. 2015

IEEE 802.11bb Standard Contributions

[S-10] M. Uysal, F. Miramirkhani, T. Baykas, and K. Qaraqe, "IEEE 802.11bb Reference Channel Models for Indoor Environments", doc.: IEEE 11-18-1582-02-00bb, Sept. 2018. [Online]. Available: https://mentor.ieee.org/802.11/dcn/18/11-18-1582-00-00bb-ieee-802-11bb-reference-channel-models-for-indoor-environments.pdf (pdf).

[S-9] M. Uysal, F. Miramirkhani, and T. Baykas, "IEEE 802.11bb Channel Model for Conference Room Environment", doc.: IEEE 11-18-1365-00-00bb, Jul. 2018. [Online]. Available: https://mentor.ieee.org/802.11/dcn/18/11-18-1365-00-00bb-ieee-802-11bb-channel-model-for-conference-room-environment.docx (docx).

[S-8] M. Uysal, F. Miramirkhani, T. Baykas, K. Qaraqe, and M. Abdallah, "IEEE 802.11bb Reference Channel Models for Gas Pipelines", doc: IEEE 11-18-1239-01-00bb, Jul. 2018. [Online]. Available: https://mentor.ieee.org/802.11/dcn/18/11-18-1239-01-00bb-ieee-802-11bb-reference-channel-models-for-gas-pipelines.pdf (pdf).

[S-7] M. Uysal, F. Miramirkhani, T. Baykas, K. Qaraqe, and M. Abdallah, "IEEE 802.11bb Reference Channel Models for Underwater Environments", doc: IEEE 11-18-1238-01-00bb, Jul. 2018. [Online]. Available: https://mentor.ieee.org/802.11/dcn/18/11-18-1238-01-00bb-ieee-802-11bb-reference-channel-models-for-underwater-environments.pdf (pdf).

[S-6] M. Uysal, F. Miramirkhani, T. Baykas, E. Kinav, and O. Rustu, "IEEE 802.11bb Reference Channel Models for Vehicular Communications", doc: IEEE 11-18-1237-01-00bb, Jul. 2018. [Online]. Available: https://mentor.ieee.org/802.11/dcn/18/11-18-1237-01-00bb-ieee-802-11bb-reference-channel-models-for-vehicular-communications.pdf (pdf).

[S-5] M. Uysal, F. Miramirkhani, T. Baykas, N. Serafimovski, and V. Jungnickel, "IEEE 802.11bb Reference Channel Models for Indoor Environments", doc: IEEE 11-18-1236-01-00bb, Jul. 2018. [Online]. Available: https://mentor.ieee.org/802.11/dcn/18/11-18-1236-01-00bb-ieee-802-11bb-reference-channel-models-for-indoor-environments.pdf (pdf).

IEEE 802.15.7r1 (802.15.13) Standard Contributions

[S-4] M. Uysal, T. Baykas, F. Miramirkhani, N. Serafimovski, and V. Jungnickel, "TG7r1 Channel Model Document for High-Rate PD Communications", doc: IEEE 802.15-15/0746r1, Sept. 2015. [Online]. Available: https://mentor.ieee.org/802.15/dcn/15/15-15-0746-01-007a-tg7r1-channel-model-document-for-high-rate-pd-communications.pdf (pdf).

[S-3] M. Uysal, F. Miramirkhani, T. Baykas, N. Serafimovski, and V. Jungnickel, "LiFi Channel Models: Office, Home and Manufacturing Cell", doc: IEEE 802.15-15/0685r0, Sept. 2015. [Online]. Available: https://mentor.ieee.org/802.15/dcn/15/15-15-0685-00-007a-lifi-reference-channel-models-office-home-manufacturing-cell.pdf (pdf).

[S-2] M. Uysal, and F. Miramirkhani, "LiFi Reference Channel Models: Office, Home, and Hospital", doc: IEEE 802.15-15/0514r1, Jul. 2015. [Online]. Available: https://mentor.ieee.org/802.15/dcn/15/15-15-0514-01-007a-lifi-reference-channel-models-office-home-hospital.pptx (pptx).

[S-1] M. Uysal, and F. Miramirkhani, "Channel Modeling for Visible Light Communications", doc: IEEE 802.15-15/0352r1, May 2015. [Online]. Available: https://mentor.ieee.org/802.15/dcn/15/15-15-0352-01-007a-channel-modeling-for-visible-light-communications.pptx (pptx).