

YUSUF ÖZTÜRK

ASSOCIATE PROFESSOR



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Address : Department of Electrical and Electronics Engineering, Antalya Bilim University

Education

Doctoral 2008 1/July/2014	ANKARA UNIVERSITY -> INSTITUTE OF SCIENCE -> ELECTRICAL-ELECTRONICS ENGINEERING (PhD) Thesis name: Planar Metamaterials and their Applications (2014) Thesis Advisor: Prof. Dr. Asım Egemen YILMAZ, Prof. Dr. Ekmel ÖZBAY
Master (Thesis) 1999 7/March/2002	ANKARA UNIVERSITY -> INSTITUTE OF SCIENCE -> ELECTRICAL-ELECTRONICS ENGINEERING (MASTER) Thesis name: Prediction and Classification of Image Content Using Features Extracted Through Image Analysis (2002) Thesis Advisor: Prof. Dr. Ziya TELATAR
Bachelor's Degree 1992 26/September/1997	ANKARA UNIVERSITY -> FACULTY OF ENGINEERING -> DEPARTMENT OF ELECTRICAL-ELECTRONICS ENGINEERING

Academic Title

ASSISTANT PROFESSOR 26.10.2017	ANTALYA BILIM UNIVERSITY / FACULTY OF ENGINEERING AND NATURAL SCIENCES / DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
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Supervised Theses:

Master's Degree

1. Muhammad Arsalan Irshad, (2024). A comparative analysis of deep learning architectures for breast cancer detection in ultrasound imaging, ANTALYA BILIM UNIVERSITY -> INSTITUTE OF GRADUATE STUDIES -> ELECTRICAL AND COMPUTER ENGINEERING (Completed)
2. Muhammad Nouman Abbasi, (2024). Optimizing photovoltaic solar systems for sustainable rural electrification, ANTALYA BILIM UNIVERSITY -> INSTITUTE OF GRADUATE STUDIES -> ELECTRICAL AND COMPUTER ENGINEERING (Completed)
3. Zekican Ertürk, (2023). Development of low-ion-doped Cr:LiCAF lasers, ANTALYA BILIM UNIVERSITY -> INSTITUTE OF GRADUATE STUDIES -> ELECTRICAL AND COMPUTER ENGINEERING (Completed)
4. Mustafa Fetih Mekteplioğlu, (2020). Development of single-mode diode-pumped Cr:LiSAF lasers, ANTALYA BILIM UNIVERSITY -> INSTITUTE OF GRADUATE STUDIES -> ELECTRICAL AND ELECTRONICS ENGINEERING (Completed)

Positions in Projects:

1. "Development and Characterization of Diode-Pumped, Highly Efficient, High-Power Low-Ion-Doped Cr:LiCAF Laser Systems", **TÜBİTAK Project (1001)**, **Principal Investigator: Yusuf Öztürk**, Researcher: Ersen Beyatlı, Consultant: Ümit Demirbaş, 01/12/2019 - 01/03/2023 (NATIONAL)
2. "National IPv6 Protocol Infrastructure Design and Transition Project", **TÜBİTAK Project (1007)**, **Principal Investigator: Serkan Orcan**, **Researchers: Yusuf Öztürk**, Cevriye Gencer, Emel Kızılkaya Aydoğan, Şeref Sağiroğlu, and Necdet Yücel, 15/02/2009 - 15/02/2011 (NATIONAL)
3. A Route Towards High-Energy and High Peak Power Diode-Pumped Cr:Colquiriite Femtosecond Amplifiers, **TÜBİTAK Project (1001)**, **Principal Investigator: Ümit Demirbaş**, **Researchers: Yusuf Öztürk** and Serdar Okuyucu, 15/05/2026 - 15/05/2028 (In Progress) (NATIONAL)
4. Development of Diode-Pumped, High Power and Cost Effective Cr:Colquiriite Laser Systems, **TÜBİTAK Project (1001)**, **Principal Investigator: Yusuf Öztürk**, **Researchers: Serdar Okuyucu** and Ümit Demirbaş, **Scholarship Holder: Mustafa Fetih Mekteplioğlu**, 03/06/2025 - 03/06/2028 (In Progress) (NATIONAL)

Administrative Position

Institute Executive Board ANTALYA BILIM UNIVERSITY -> INSTITUTE OF GRADUATE STUDIES
Membership
01.01.2020-01.03.2025

Memberships to Scientific Organizations

- 1.IEEE, Member, 2024-...
- 2.OPTICA, Member, 2015-...

Courses (the Last Year)

Course	Language of Instruction	Course Hour	Semester
2024-2025			
Bachelor's Degree Programme			
Lasers	English	3	Fall
Electromagnetic Field Theory	English	4	Fall
Introduction to Electrical and Electronics Engineering and Ethics	English	2	Spring
Electromagnetic Waves and Antennas	English	3	Spring
Master Programme			
Advanced Artificial Intelligence	English	3	Spring
2023-2024			
Bachelor's Degree Programme			
Semiconductor Device Principles	English	3	Fall
Electromagnetic Field Theory	English	4	Fall
Electromagnetic Waves and Antennas	English	3	Spring
Lasers	English	3	Spring
Introduction to Electrical and Electronics Engineering and Ethics	English	2	Spring

Works

Articles published in international refereed journals:

- 1.Zekican Ertürk, Serdar Okuyucu, **Yusuf Öztürk**, Ümit Demirbaş (2026). Design-guided intracavity-doubled Cr:LiCAF laser with optimized long-term robustness and 377-424 nm tunability. Applied Physics B, 132(1). DOI: 10.1007/s00340-025-08618-5 (**SCIE** Publication No: 10127158)
- 2.**Yusuf Öztürk** (2025). Spectral-Based Temperature Sensing in Cr:LiCAF Crystals Using Fluorescence Peak Shift Calibration. Crystals, 15(12). DOI: 10.3390/cryst15121047 (**SCIE** Publication No: 9906855)
- 3.**Yusuf Öztürk**, Muhammad Nouman Abbasi (2025). Harnessing Photovoltaic Solar Power in Rural Regions: A Case Study of Tehsil Saleh Pat, Sindh, Pakistan. Journal of Polytechnic, 28(2). DOI: 10.2339/politeknik.1446521 (**E-SCI** Publication No: 9611552)
- 4.Zekican Ertürk, Muharrem Kılınç, Serdar Okuyucu, **Yusuf Öztürk**, Mikhail Pergament, Franz X. Kärtner, Ümit Demirbaş (2024). Dual-wavelength synchronously mode-locked Cr:LiSAF laser with a tunable beating frequency and a central wavelength. Optics Letters, 49(11). DOI: 10.1364/OL.523994 (**SCIE** Publication No: 9048409)
- 5.Zekican Ertürk, Muharrem Kılınç, Serdar Okuyucu, **Yusuf Öztürk**, Ümit Demirbaş (2024). Challenges in power scaling of Cr:LiCAF lasers: effect of passive losses. Applied Optics, 63(4). DOI: 10.1364/AO.513510 (**SCIE** Publication No: 9048413)
- 6.**Yusuf Öztürk**, Muharrem Kılınç, Halime Nur Buzcu, Zekican Ertürk (2023). Termal analiz ve iyileştirilmiş tutucu tasarımı ile 1.5 W lazer diyet çift-uç pompalı levha geometrisine sahip Cr:Nd:GSGG lazer sistemi. Journal of the Faculty of Engineering and Architecture of Gazi University, 38(4). DOI: 10.17341/gazimmfd.1053971 (**SCIE** Publication No: 8447377)
- 7.Serdar Okuyucu, Jelto Thesinga, Hiroki Tanaka, **Yusuf Öztürk**, Franz X. Kärtner, Mikhail Pergament, Ümit Demirbaş (2023). Temperature dependence of the emission cross-section and fluorescence lifetime in Cr:LiCAF, Cr:LiSAF, and Cr:LiSGaF between 78 K and 618 K. Optical Materials Express, 13(5). DOI: 10.1364/OME.486842 (**SCIE** Publication No: 8447370)
- 8.Mustafa Fetih Mekteplioğlu, **Yusuf Öztürk**, Mikhail Pergament, Franz X. Kärtner, Ümit Demirbaş (2023). Broadly tunable (402-535 nm) intracavity frequency-doubled Cr:LiSAF laser. Applied Physics B, 129(1). DOI: 10.1007/s00340-022-07966-w (**SCIE** Publication No: 8447387)
- 9.Zekican Ertürk, Serdar Okuyucu, Muharrem Kılınç, **Yusuf Öztürk**, Mikhail Pergament, Franz X. Kärtner, Ümit Demirbaş (2022). Broadly tunable two-color lasing of Cr:LiCAF with on-surface and off-surface optical axis birefringent filters: performance comparison. Applied Optics, 61(36). DOI: 10.1364/AO.472548 (**SCIE** Publication No: 8447395)
- 10.Mustafa Fetih Mekteplioğlu, **Yusuf Öztürk**, Ümit Demirbaş, Franz X. Kärtner (2021). Tunable Q-switched mode-locked Cr:LiSAF laser. Optics Communications, 488, 126836. DOI: 10.1016/j.optcom.2021.126836 (**SCIE** Publication No: 6607096)

- 11.Serdar Okuyucu, **Yusuf Öztürk**, Ümit Demirbaş (2021). Passively Q-switched Cr:LiCAF laser with a saturable Bragg reflector. Applied Physics B, 127, 54. DOI: 10.1007/s00340-021-07593-x (**SCIE** Publication No: 6607182)
- 12.**Yusuf Öztürk**, Asım Egemen Yılmaz (2016). Multiband and perfect absorber with circular fishnet metamaterial and its variations. Applied Computational Electromagnetics Society Journal, 31(12). (**SCIE** Publication No: 3661178)
- 13.**Yusuf Öztürk**, Asım Egemen Yılmaz, Ekmel Özbay (2016). Conversion from constitutive parameters to dispersive transmission line parameters for multi-band metamaterials. Waves in Random and Complex Media, 26(2), 211-223. DOI: 10.1080/17455030.2015.1134851 (**SCIE** Publication No: 3661167)
- 14.**Yusuf Öztürk**, Asım Egemen Yılmaz, İ. Evrim Çolak, Ekmel Özbay (2012). Characterization, slab-pair modeling and phase analysis of circular fishnet metamaterials. Photonics and Nanostructures - Fundamentals and Applications, 10(4), 624-631. DOI: 10.1016/j.photonics.2012.05.013 (**SCIE** Publication No: 3661156)
- 15.Emel Kızılkaya Aydoğan, M. Yekta Soylu, Cevriye Gencer, Suna Çetin, Murat Soysal, Onur Bektaş, Emre Yüce, **Yusuf Öztürk**, Yavuz Gökırmak, Şeref Sağıroğlu (2011). IPv4 den IPv6 ya geçiş için AHP modeli. Journal of the Faculty of Engineering and Architecture of Gazi University, 26(3), 701-709. (**SCIE** Publication No: 3661180)

B. Papers presented at international scientific meetings and published in proceedings:

- 1.Hediye Sude Ece, Kamer Özgün, **Yusuf Öztürk** (2024). Comparative Study of Machine Learning Techniques for Remaining Useful Life Estimation in Simulated Mini Factory Environment. ICAIAME 2024, Engineering Cyber-Physical Systems and Critical Infrastructures. DOI: 10.1007/978-3-031-92552-8_15 (Full Text Publication/Oral Presentation) (Publication No: 9611669)
- 2.**Yusuf Öztürk** (2025). Prediction of Power Overload in Horizontal Milling Machines Using LSTM Autoencoders. 6th International Bosphorus Scientific Research Congress, 762-773. (Full Text Publication/Oral Presentation) (Publication No: 9611701)
- 3.Bengisu Atlı, Akın Öztürk, **Yusuf Öztürk** (2025). Gossip Neural Networks for Invasive Ductal Carcinoma Detection Using Histopathological Images. 2025 International Conference on Artificial Intelligence, Computer, Data Sciences and Applications (ACDSA), 1-6. DOI: 10.1109/ACDSA65407.2025.11166020 (Full Text Publication/Oral Presentation) (Publication No: 9818375)
- 4.Zekican Ertürk, Muharrem Kılınç, Serdar Okuyucu, **Yusuf Öztürk**, Mikhail Pergament, Franz X. Kärtner, Ümit Demirbaş (2024). Dual-Wavelength CW and CW Mode-Locked Cr:Colquiriite Lasers. 2024 Conference on Lasers and Electro-Optics (CLEO). (Full Text Publication/Oral Presentation) (Publication No: 9611708)
- 5.Zekican Ertürk, Muharrem Kılınç, Serdar Okuyucu, **Yusuf Öztürk**, Ümit Demirbaş (2024). Power Scaling Potential of Diode-Pumped Cr:LiCAF Slab Lasers to >10 W Level in Continuous-Wave Operation. 2024 Conference on Lasers and Electro-Optics (CLEO). (Full Text Publication/Oral Presentation) (Publication No: 9611711)
- 6.Serdar Okuyucu, Ümit Demirbaş, Hiroki Tanaka, Jelto Thesinga, **Yusuf Öztürk**, Franz X. Kärtner, Mikhail Pergament (2022). Temperature Dependence of Emission Cross Section and Fluorescence Lifetime of Cr:Colquiriites in the 78-618 K Range. Applications of Lasers for Sensing and Free Space Communications 2022. DOI: 10.1364/ASSL.2022.JTu6A.8 (Full Text Publication/Poster) (Publication No: 8447415)
- 7.**Yusuf Öztürk**, Gökhan İlk, Ziya Telatar (2002). Yüksek dereceli istatistik yöntemleri kullanarak mamogram görüntülerindeki kanserli hücrelerin sınıflandırılması. SIU 2002 IEEE Sinyal İşleme ve Uygulamaları Konferansı, 2, 858-863. (Full Text Publication/Oral Presentation) (Publication No: 3662750)
- 8.**Yusuf Öztürk**, Zehra Zeybek, Ziya Telatar (2001). Fuzzy Relational Pattern Dynamics of the Breast Cancer Cells. Proceedings of the 6th On-line World Conference on Soft Computing in Industrial Applications. (Full Text Publication/Oral Presentation) (Publication No: 3662739)

D. Articles published in national refereed journals:

1. **Yusuf Öztürk** (2025). A comparative analysis of machine and deep learning models for predictive maintenance and fault estimation of tools in industrial machinery within small-scale settings. Communications Faculty of Sciences University of Ankara Series A2-A3 Physical Sciences and Engineering, 67(2), 193-215. DOI: 10.33769/aupse.1729175 (**Tr-Dizin** Control No: 9906888)

E. Papers presented at national scientific meetings and published in proceedings:

1. Ayşenur Özbek, Melisa Kulcu, Serdar Okuyucu, **Yusuf Öztürk** (2025). Design of an Artificial Magnetic Conductor-Integrated Patch Antenna for Microwave Breast Cancer Imaging. 12th URSI Türkiye Scientific Congress and National Committee General Assembly Meeting. (Full Text Publication/Oral Presentation) (Publication No: 9821617)
2. **Yusuf Öztürk**, Asım Egemen Yılmaz (2016). Dairesel balıkakğı metamalzemeler için parametre deęişim analizleri. VIII. URSI-Türkiye Scientific Congress. (Full Text Publication/Poster) (Publication No: 3662758)

Non-academic Experience

04.12.1997-26.10.2017 **TÜBİTAK** (The Scientific and Technological Research Council of TURKİYE)
Project Manager