

## Doç.Dr. Onur Ferhanoğlu

### Kişisel Bilgiler

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### Uluslararası Araştırmacı ID'leri

ScopusID: 22955271900

Yoksis Araştırmacı ID: 205198

### Eğitim Bilgileri

Doktora, Koç Üniversitesi, Fen Bilimleri Enstitüsü, Elektrik Ve Elektronik Mühendisliği (Dr), Türkiye 2005 - 2011

Yüksek Lisans, İhsan Doğramacı Bilkent Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Türkiye 2003 - 2005

Lisans, İhsan Doğramacı Bilkent Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Türkiye 1999 - 2003

### Yabancı Diller

İngilizce

### Yaptığı Tezler

Doktora, Design, fabrication and characterization of a MOEMS based thermal imaging system, Koç Üniversitesi, Fen Bilimleri Enstitüsü, Elektrik Ve Elektronik Mühendisliği (Dr), 2010

Yüksek Lisans, Safety of metallic implants in magnetic resonance imaging, İhsan Doğramacı Bilkent Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2005

### Araştırma Alanları

Teknik Bilimler, Biyomedikal Mühendisliği, Biyofotonik, Biyomedikal Optik

### Akademik Unvanlar / Görevler

Doç.Dr., İstanbul Teknik Üniversitesi, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, 2019 - Devam Ediyor

Yrd.Doç.Dr., İstanbul Teknik Üniversitesi, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, 2014 - 2019

Araştırma Görevlisi Dr., University of Texas at Austin, Mühendislik Fak., Makina Mühendisliği, 2011 - 2013

### SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- Monitoring modal shape of miniaturized dynamic structures via laser triangulation and stroboscopy**  
Erdem Y. E., Yelten M. B., Ferhanoğlu O.  
MICROSYSTEM TECHNOLOGIES-MICRO-AND NANOSYSTEMS-INFORMATION STORAGE AND PROCESSING SYSTEMS,

cilt.27, sa.10, ss.3751-3756, 2021 (SCI-Expanded)

- II. **A meandered dual loop antenna for wireless capsule endoscopy**  
Gures E., Yelten M. B., Özdemir Ö., Ferhanoglu O.  
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, cilt.137, 2021 (SCI-Expanded)
- III. **Multi-Capsule Endoscopy: An initial study on modeling and phantom experimentation of a magnetic capsule train**  
Peker F., Ferhanoglu O.  
JOURNAL OF MEDICAL AND BIOLOGICAL ENGINEERING, cilt.41, ss.315-321, 2021 (SCI-Expanded)
- IV. **MRI Compatible Fiber Optic Multi Sensor Platform for Real Time Vital Monitoring**  
Zolfaghari P., Erden O. K., Ferhanoglu O., Tumer M., YALÇINKAYA A. D.  
JOURNAL OF LIGHTWAVE TECHNOLOGY, cilt.39, sa.12, ss.4138-4144, 2021 (SCI-Expanded)
- V. **Optical characterization of olive and sun flower oils via mueller matrix polarimetry in combination with principal component analysis**  
Derman D., Senel E. C., Opar E., Ferhanoglu O., POLAT Ö.  
JOURNAL OF FOOD MEASUREMENT AND CHARACTERIZATION, cilt.15, sa.3, ss.2309-2317, 2021 (SCI-Expanded)
- VI. **A 3D-printed tunable fluidic lens with collagen-enriched membrane**  
Senel E. C., Derman I. D., Satak S., Erten A. C., Ferhanoglu O.  
MICROSYSTEM TECHNOLOGIES-MICRO-AND NANOSYSTEMS-INFORMATION STORAGE AND PROCESSING SYSTEMS, cilt.27, sa.5, ss.1993-2000, 2021 (SCI-Expanded)
- VII. **Improved physical layer security of visible light communications with focused light emitters**  
Cirkinoglu H. O., Ferhanoglu O., Karabulut Kurt G. Z.  
OPTICS COMMUNICATIONS, cilt.485, 2021 (SCI-Expanded)
- VIII. **Optical characterization of heat dependent collagen denaturation via Mueller matrix polarimetry in combination with principal component analysis**  
Derman D., Opar E., Ferhanoglu O., POLAT Ö., KAZANCI M.  
APPLIED OPTICS, cilt.60, sa.9, ss.2543-2548, 2021 (SCI-Expanded)
- IX. **A 3D-printed 3D actuator for miniaturized laser scanning probes**  
Gurcuoglu O., Derman I. D., Altinsoy M., Khayatzaheh R., Civitci F., Erten A. C., Ferhanoglu O.  
SENSORS AND ACTUATORS A-PHYSICAL, cilt.317, 2021 (SCI-Expanded)
- X. **Synchronous Imaging of Multiple Slices Using Higher-Order Bessel Beams and a Spherical Lens**  
Tekpınar M., Ferhanoglu O.  
IEEE PHOTONICS TECHNOLOGY LETTERS, cilt.32, sa.23, ss.1477-1480, 2020 (SCI-Expanded)
- XI. **Experimental and modeling studies of automotive-qualified OLEDs under electrical stress**  
Guney A., Yelten M. B., Ferhanoglu O., KAHRAMAN N.  
MICROELECTRONICS RELIABILITY, cilt.111, 2020 (SCI-Expanded)
- XII. **Scattering Metal Waveguide Based Speckle-Enhanced Prism Spectrometry**  
Cetindag S. K., Toy M. F., Ferhanoglu O., Civitci F.  
JOURNAL OF LIGHTWAVE TECHNOLOGY, cilt.38, sa.7, ss.2022-2027, 2020 (SCI-Expanded)
- XIII. **A 45 degrees tilted 3D-printed scanner for compact side-view laser scanning endoscopy**  
Savas J., Altinsoy M., GÖKDEL Y. D., Ferhanoglu O., Civitci F.  
MICROSYSTEM TECHNOLOGIES-MICRO-AND NANOSYSTEMS-INFORMATION STORAGE AND PROCESSING SYSTEMS, cilt.26, sa.4, ss.1093-1099, 2020 (SCI-Expanded)
- XIV. **Reliability Testing of 3D-Printed Polyamide Actuators**  
Kasap G., Gokdel Y. D., Yelten M. B., Ferhanoglu O.  
IEEE TRANSACTIONS ON DEVICE AND MATERIALS RELIABILITY, cilt.20, sa.1, ss.152-156, 2020 (SCI-Expanded)
- XV. **Enhanced transmitting and blocking filter design approach for laser scanning applications based on combining GSM and AFGSM methods**  
Erkan O., Şimşek S., Ferhanoglu O.  
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, cilt.114, 2020 (SCI-Expanded)
- XVI. **A stainless-steel micro-scanner for rapid 3D confocal imaging**  
Oyman H. A., Efe B. C., Icel M. A., GÖKDEL Y. D., Ferhanoglu O., YALÇINKAYA A. D.

- JOURNAL OF PHYSICS D-APPLIED PHYSICS, cilt.52, sa.30, 2019 (SCI-Expanded)
- XVII. **Multiple-pattern generating piezoelectric fiber scanner toward endoscopic applications**  
Tekpınar M., Khayatzadeh R., Ferhanoğlu O.  
OPTICAL ENGINEERING, cilt.58, sa.2, 2019 (SCI-Expanded)
- XVIII. **A Speckle-Enhanced Prism Spectrometer With High Dynamic Range**  
Cetindag S. K., Toy M. F., Ferhanoğlu O., Çivitci F.  
IEEE PHOTONICS TECHNOLOGY LETTERS, cilt.30, sa.24, ss.2139-2142, 2018 (SCI-Expanded)
- XIX. **Performance of a three-dimensional-printed microscanner in a laser scanning microscopy application**  
Oyman H. A., GÖKDEL Y. D., Ferhanoğlu O., YALÇINKAYA A. D.  
OPTICAL ENGINEERING, cilt.57, sa.4, 2018 (SCI-Expanded)
- XX. **Reliability Testing of 3D-printed Electromechanical Scanning Devices**  
Gönültaş B. M., SAVAŞ J., Khayatzadeh R., Aygün S., ÇİVİTÇİ F., GÖKDEL Y. D., YELTEN M. B., FERHANOĞLU O.  
Journal Of Electronic Testing-Theory And Applications, 2018 (SCI-Expanded)
- XXI. **Scanning fiber microdisplay: design, implementation, and comparison to MEMS mirror-based scanning displays**  
Khayatzadeh R., Civitci F., Ferhanoğlu O., Urey H.  
Optics Express, cilt.26, sa.5, ss.5576-5590, 2018 (SCI-Expanded)
- XXII. **Toward fully three-dimensional-printed miniaturized confocal imager**  
Savaş J., Khayatzadeh R., Çivitci F., Gökdel Y. D., Ferhanoğlu O.  
OPTICAL ENGINEERING, cilt.57, sa.4, ss.41402, 2018 (SCI-Expanded)
- XXIII. **A 3D scanning laser endoscope architecture utilizing a circular piezoelectric membrane**  
KHAYATZADEH R., Civitci F., Ferhanoğlu O.  
OPTICS COMMUNICATIONS, cilt.405, ss.222-227, 2017 (SCI-Expanded)
- XXIV. **Unwarped Lissajous Scanning With Polarization Maintaining Fibers**  
KHAYATZADEH R., Ferhanoğlu O., Civitci F.  
IEEE PHOTONICS TECHNOLOGY LETTERS, cilt.29, sa.19, ss.1623-1626, 2017 (SCI-Expanded)
- XXV. **Optimization of piezo-fiber scanning architecture for low voltage/high displacement operation**  
KHAYATZADEH R., CIVITCI F., Ferhanoğlu O.  
SENSORS AND ACTUATORS A-PHYSICAL, cilt.255, ss.21-27, 2017 (SCI-Expanded)
- XXVI. **Thermomechanical MEMS membranes for fiber optic temperature sensing**  
Ferhanoğlu O.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.25, sa.3, ss.2491-2500, 2017 (SCI-Expanded)
- XXVII. **Kagome fiber based ultrafast laser microsurgery probe delivering micro-Joule pulse energies**  
Subramanian K., GABAY I., Ferhanoglu O., Shadfan A., Pawlowski M., Wang Y., Tkaczyk T., BEN-YAKAR A.  
BIOMEDICAL OPTICS EXPRESS, cilt.7, sa.11, ss.4639-4653, 2016 (SCI-Expanded)
- XXVIII. **A Prism-Based Optical Readout Method for MEMS Bimaterial Infrared Sensors**  
Adiyan U., CIVITCI F., Ferhanoğlu O., Torun H., Urey H.  
IEEE PHOTONICS TECHNOLOGY LETTERS, cilt.28, sa.17, ss.1866-1869, 2016 (SCI-Expanded)
- XXIX. **Fiber Temperature Sensor Utilizing a Thermomechanical MEMS Detector**  
Cirkinoglu H. O., Bilgin H., CIVITCI F., Torun H., Ferhanoğlu O.  
JOURNAL OF LIGHTWAVE TECHNOLOGY, cilt.34, sa.3, ss.1025-1030, 2016 (SCI-Expanded)
- XXX. **A 35- $\mu$ m Pitch IR Thermo-Mechanical MEMS Sensor With AC-Coupled Optical Readout**  
Adiyan U., Civitci F., Ferhanoğlu O., Torun H., Urey H.  
IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS, cilt.21, sa.4, 2015 (SCI-Expanded)

## Desteklenen Projeler

Ferhanoğlu O., Yükseköğretim Kurumları Destekli Proje, Yüksek Çözünürlüklü ve Geniş Bant Aralıklı Spektrometre

Sistemi, 2016 - 2019

Ferhanođlu O., Yükseköđretim Kurumları Destekli Proje, Termomekanik MEMS tabanlı Fiber optik sıcaklık algılayıcısı (Fiber temperature sensor utilizing a thermomechanical MEMS detector), 2016 - 2018

Ferhanođlu O., Yükseköđretim Kurumları Destekli Proje, Piezoelektrik tabanlı fiber tarayıcı ünitesi, 2016 - 2017

Ferhanođlu O., Yükseköđretim Kurumları Destekli Proje, KANSER TEŞHİSİNE YÖNELİK LAZER ENDOSKOPLARIN GELİŞTİRİLMESİ, 2015 - 2017

## **Metrikler**

Yayın: 81

Atf (WoS): 298

Atf (Scopus): 348

H-İndeks (WoS): 8

H-İndeks (Scopus): 9

## **Akademi Dışı Deneyim**

University of Texas at Austin