

## Doç.Dr. Özgür Atalay

### Kişisel Bilgiler

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### Uluslararası Araştırmacı ID'leri

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### Eğitim Bilgileri

Post Doktora, Harvard University, Seas, Amerika Birleşik Devletleri 2015 - 2017

Doktora, The University of Manchester, Birleşik Krallık 2010 - 2014

Yüksek Lisans, The University of Manchester, Birleşik Krallık 2008 - 2009

Lisans, Ege Üniversitesi, Mühendislik Fakültesi, Tekstil Mühendisliği Bölümü, Türkiye 2002 - 2006

### Yabancı Diller

İngilizce, C1 İleri

### Araştırma Alanları

Teknik Bilimler, Tekstil Mühendisliği ve Teknolojisi

### Akademik Unvanlar / Görevler

Doç.Dr., İstanbul Teknik Üniversitesi, 2019 - Devam Ediyor

Araştırma Görevlisi Dr., İstanbul Teknik Üniversitesi, Tekstil Teknolojileri Ve Tasarımı Fakültesi, Tekstil Mühendisliği Bölümü, 2014 - Devam Ediyor

Diğer, Harvard University, Seas, Biodesign Lab, 2015 - 2017

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

#### I. Real-time Stride Length Estimation using Textile-Based Capacitive Soft Strain Sensors

Ayvaz U., Özlem K., Yılmaz A., Tunçay Atalay A., Atalay Ö., İnce G.

IEEE Transactions on Instrumentation and Measurement, cilt.73, ss.1-11, 2024 (SCI-Expanded)

#### II. Design of the monolithic planar isotropic auxetic piezo-resistive sensor glove to detect human hand motion

Taherkhani B., Nasri R., Tuncay Atalay A., Malmir Chegini M., Atalay Ö.

Journal of Materials Science, cilt.59, sa.2, ss.686-697, 2024 (SCI-Expanded)

#### III. Isotropic auxetic structure with fixed Poisson's ratio for piezo-resistive strain sensor to detect human body motion

- Taherkhani B., Rahmani S., Atalay Ö.  
Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, cilt.237, sa.10, ss.2177-2189, 2023 (SCI-Expanded)
- IV. **Development and characterization of conductive textile (polyester fabric) for wearable electronics by using electroless metallization**  
Hassan Z., Atalay Ö., Kalaoğlu F., Ozat F. A., ÖZDEMİR Ö., Kesimci M. O.  
Journal of the Textile Institute, 2023 (SCI-Expanded)
- V. **Effect of Segment Types on Characterization of Soft Sensing Textile Actuators for Soft Wearable Robots**  
Yilmaz A., Khalilbayli F., Özlem K., Elmoughnı H. M. E. A., Kalaoğlu F., TUNÇAY ATALAY A., İnce G., Atalay Ö.  
Biomimetics, cilt.7, sa.4, 2022 (SCI-Expanded)
- VI. **Thermoelectric Clothing for Body Heat Harvesting and Personal Cooling: Design and Fabrication of a Textile-Integrated Flexible and Vertical Device**  
Elmoughnı H. M. E. A., Atalay Ö., Özlem K., Menon A. K.  
ENERGY TECHNOLOGY, cilt.10, sa.10, 2022 (SCI-Expanded)
- VII. **Conductive cotton fabric using laser pre-treatment and electroless plating**  
Hassan Z., Atalay Ö., Kalaoğlu F.  
JOURNAL OF THE TEXTILE INSTITUTE, cilt.113, sa.5, ss.737-747, 2022 (SCI-Expanded)
- VIII. **Machine-Knitted Seamless Pneumatic Actuators for Soft Robotics: Design, Fabrication, and Characterization**  
Elmoughnı H. M. E. A., Yilmaz A. F., Özlem K., Khalilbayli F., Cappello L., Atalay A. T., İnce G., Atalay Ö.  
ACTUATORS, cilt.10, sa.5, 2021 (SCI-Expanded)
- IX. **Development and characterization of conductive textile (cotton) for wearable electronics and soft robotic applications**  
Hassan Z., Kalaoğlu F., Atalay Ö.  
TEXTILE RESEARCH JOURNAL, cilt.90, ss.1792-1804, 2020 (SCI-Expanded)
- X. **Development of textile-based transmission lines using conductive yarns and ultrasonic welding technology for e-textile applications**  
Atalay Ö., Kalaoğlu F., Kurşun Bahadir S.  
JOURNAL OF ENGINEERED FIBERS AND FABRICS, cilt.14, 2019 (SCI-Expanded)
- XI. **Textile-Based, Interdigital, Capacitive, Soft-Strain Sensor for Wearable Applications**  
Atalay Ö.  
MATERIALS, cilt.11, sa.5, 2018 (SCI-Expanded)
- XII. **A Highly Sensitive Capacitive-Based Soft Pressure Sensor Based on a Conductive Fabric and a Microporous Dielectric Layer**  
Atalay Ö., Atalay A., Gafford J., Walsh C.  
ADVANCED MATERIALS TECHNOLOGIES, cilt.3, sa.1, 2018 (SCI-Expanded)
- XIII. **Piezofilm yarn sensor-integrated knitted fabric for healthcare applications**  
Atalay A., Atalay O., Husain M. D., Fernando A., Potluri P.  
JOURNAL OF INDUSTRIAL TEXTILES, cilt.47, sa.4, ss.505-521, 2017 (SCI-Expanded)
- XIV. **A Highly Stretchable Capacitive-Based Strain Sensor Based on Metal Deposition and Laser Rastering**  
Atalay O., Atalay A., Gafford J., Wang H., Wood R., Walsh C.  
ADVANCED MATERIALS TECHNOLOGIES, cilt.2, sa.9, 2017 (SCI-Expanded)
- XV. **Batch Fabrication of Customizable Silicone-Textile Composite Capacitive Strain Sensors for Human Motion Tracking**  
Atalay A., Sanchez V., Atalay O., Vogt D. M., Haufe F., Wood R. J., Walsh C. J.  
ADVANCED MATERIALS TECHNOLOGIES, cilt.2, sa.9, 2017 (SCI-Expanded)
- XVI. **DEVELOPMENT OF TEST RIG SYSTEM FOR CALIBRATION OF TEMPERATURE SENSING FABRIC**  
Husain M. D., Atalay O., Atalay A., Kennon R.  
AUTEX RESEARCH JOURNAL, cilt.17, sa.3, ss.219-228, 2017 (SCI-Expanded)
- XVII. **Measuring Human Body Temperature through Temperature Sensing Fabric**

- Husain M. D., Naqvi S., Atalay Ö., Hamdani S. T. A., Kennon R.  
AATCC JOURNAL OF RESEARCH, cilt.3, sa.4, ss.1-12, 2016 (SCI-Expanded)
- XVIII. An Analysis on the Moisture and Thermal Protective Performance of Firefighter Clothing Based on Different Layer Combinations and Effect of Washing on Heat Protection and Vapour Transfer Performance  
Atalay Ö., BAHADIR S. K., Kalaoglu F.  
ADVANCES IN MATERIALS SCIENCE AND ENGINEERING, 2015 (SCI-Expanded)
- XIX. Weft-Knitted Strain Sensor for Monitoring Respiratory Rate and Its Electro-Mechanical Modeling  
Atalay O., Kennon W. R., Demirok E.  
IEEE SENSORS JOURNAL, cilt.15, sa.1, ss.110-122, 2015 (SCI-Expanded)
- XX. Knitted Strain Sensors: Impact of Design Parameters on Sensing Properties  
Atalay O., Kennon W. R.  
SENSORS, cilt.14, sa.3, ss.4712-4730, 2014 (SCI-Expanded)
- XXI. Textile-Based Weft Knitted Strain Sensors: Effect of Fabric Parameters on Sensor Properties  
Atalay O., Kennon W. R., HUSAIN M. D.  
SENSORS, cilt.13, sa.8, ss.11114-11127, 2013 (SCI-Expanded)

### Düzenlenen Dergilerde Yayınlanan Makaleler

- I. Textile-based pressure sensor arrays: A novel scalable manufacturing technique  
Gumus C., Özlem K., Khalilbayli F., Erzurumluoglu O. F., İnce G., Atalay Ö., TUNÇAY ATALAY A.  
MICRO AND NANO ENGINEERING, cilt.15, 2022 (ESCI)
- II. Investigation the surface modification of polyamide fabrics using low-pressure plasma technique  
hassan z., ATALAY Ö., KALAOĞLU F.  
IOP Conf.series:Materials Science engineering, cilt.460, sa.12051, 2018 (Hakemli Dergi)
- III. Giyilebilir Elektronik Sistemler için Tekstil Bazlı Rezistif Basınç Algılayıcı Yapılarının Geliştirilmesi  
ATALAY Ö.  
Tekstil ve Mühendis, cilt.25, sa.110, ss.140-145, 2018 (Scopus)
- IV. Uncertainty Analysis of the Temperature-Resistance Relationship of Temperature Sensing Fabric  
Husain M. D., Atalay Ö., Atalay A., Kennon R.  
FIBERS, cilt.4, sa.4, 2016 (ESCI)
- V. Effect of Strain and Humidity on the Performance of Temperature Sensing Fabric  
Husain M. D., ATALAY Ö., Kennon W. R.  
International Journal of Textile Science, 2013 (Hakemli Dergi)

### Desteklenen Projeler

Atalay Ö., Özlem K., İnce G., Yükseköğretim Kurumları Destekli Proje, Tekstil bazlı vücut hareket yakalama sisteminin geliştirilmesi, 2018 - 2019

### Bilimsel Dergilerdeki Faaliyetler

AATCC journal of research, Yardımcı Editör/Bölüm Editörü, 2016 - Devam Ediyor

### Bilimsel Kuruluşlardaki Üyelikler / Görevler

the American Association of Textile Chemists and Colorists, Üye, 2016 - Devam Ediyor

## **Metrikler**

Yayın: 53

Atıf (WoS): 801

Atıf (Scopus): 1228

H-İndeks (WoS): 10

H-İndeks (Scopus): 13

## **Burslar**

2219 Yurt Dışı Doktora Sonrası Araştırma Burs Programı, TÜBİTAK, 2015 - Devam Ediyor

YLYS, Milli Eğitim Bakanlığı, 2008 - Devam Ediyor