

# LEVENT AYDIN

## Personal Information

**Email:** leventaydin@kocaeli.edu.tr

**Web:** <https://avesis.kocaeli.edu.tr/leventaydin>

## International Researcher IDs

ScholarID: HNIOsQAAAAJ

ORCID: 0000-0002-2372-1711

Publons / Web Of Science ResearcherID: AAE-1036-2020

ScopusID: 57202248083

Yoksis Researcher ID: 307769

## Education Information

Doctorate, Kocaeli University, Fen Bilimleri Enstitüsü, Biyomedikal Mühendisliği Bölümü, Turkey 2014 - 2020

Postgraduate, Kocaeli University, Fen Bilimleri Enstitüsü, Biyomedikal Mühendisliği Bölümü, Turkey 2012 - 2014

Undergraduate, Kocaeli University, Teknik Eğitim Fakültesi, Elektronik ve Bilgisayar Eğitimi, Turkey 2008 - 2012

## Foreign Languages

English, A1 Beginner

## Certificates, Courses and Trainings

Health&Medicine, BIOPRINTING: 3D PRINTING BODY PARTS, UNIVERSITY OF WOLLONGONG, 2016

## Dissertations

Doctorate, Üç Boyutlu Biyo Yazıcı İle Kompleks Geometride Büyük Ölçekli İnsan Damar Doku Eldesi, Kocaeli University, Fen Bilimleri Enstitüsü, Biyomedikal Mühendisliği Bölümü, 2020

Postgraduate, Üç boyutlu yazıcıyla ayak bileği ortezinin tasarımı ve geliştirilmesi, Kocaeli University, Fen Bilimleri Enstitüsü, Biyomedikal Mühendisliği Bölümü, 2014

## Research Areas

Biomedical Image Processing, Biomechanics, Biomedical Engineering, Tissue Engineering, Finite Element Methods, Biomechanics, Biomaterial

## Academic and Administrative Experience

Assistant Director of Vocational School, Kocaeli University, Kocaeli Sağlık Hizmetleri Meslek Yüksekokulu, 2021 - Continues

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Occupational Risks of Podologists: A Combined Assessment of VOCs, Vibration, Noise Levels and Health Complaints**  
Arsal Yıldırım S., Pekey B., Aydın L., Peker Karatoprak A., Kolaylı F., Argun Barış S., Er D. K., Yazıcı Özçelik E., Yapsaklı K.  
INTERNATIONAL JOURNAL OF ENVIRONMENTAL HEALTH RESEARCH, no.6, pp.2529-2543, 2024 (SCI-Expanded)
- II. **A Method for Diabetic Wound-Specific Insole Design, Manufacturing, and Biomechanical Validation for Better Recovery**  
Karatoprak A. P., AYDIN L., Arslan B. C., CANTÜRK Z., SELEK A.  
Journal of the American Podiatric Medical Association, vol.114, no.3, 2024 (SCI-Expanded)
- III. **Biologic: H-Bot Kinematics Based Multi-Micro-Extrusion Bioprinter**  
AYDIN L., Karatoprak A. P., KÜÇÜK S.  
Journal of Medical Devices, Transactions of the ASME, vol.17, no.2, 2023 (SCI-Expanded)
- IV. **A universal self-eroding sacrificial bioink that enables bioprinting at room temperature**  
Aydın L., KÜÇÜK S., Kenar H.  
POLYMERS FOR ADVANCED TECHNOLOGIES, vol.31, no.7, pp.1634-1647, 2020 (SCI-Expanded)
- V. **Additive manufacturing and biomechanical validation of a patient-specific diabetic insole**  
Peker A., Aydın L., KÜÇÜK S., ÖZKOÇ G., Cetinarslan B., CANTÜRK Z., SELEK A.  
POLYMERS FOR ADVANCED TECHNOLOGIES, vol.31, no.5, pp.988-996, 2020 (SCI-Expanded)
- VI. **A method for more accurate FEA results on a medical device developed by 3D technologies**  
AYDIN L., KÜÇÜK S.  
POLYMERS FOR ADVANCED TECHNOLOGIES, vol.29, no.8, pp.2281-2286, 2018 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Evaluation of the foot health with baropodometric analysis of acromegaly patients followed after pituitary surgery**  
Karatoprak A. P., AYDIN L., YÜKSEL B., Demirhan Y., BAYDEMİR C., SELEK A., CANTÜRK Z., ARSLAN B.  
BANGLADESH JOURNAL OF MEDICAL SCIENCE, no.3, pp.698-705, 2024 (ESCI)
- II. **Development of Personal Protective Respirator Based on Additive Manufacturing Technologies in Fighting Against Pandemic**  
AYDIN L., İLKİN S., ARICAN M. O., PEKER A., ŞAHİN S., ÖZKOÇ G., AKSU M. G., KÜÇÜK S., GÜNDOĞDU Ö.  
Kocaeli Journal of Science and Engineering, vol.4, no.1, pp.24-38, 2021 (Peer-Reviewed Journal)
- III. **Patient Specific Cardiovascular Disease Modelling Based on the Computational Fluid Dynamics Simulations: Segmentation and Hemodynamic Model of a Thoracic Artery**  
Aydın L., KÜÇÜK S., ÇAKIR Ö.  
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGISI, vol.23, no.4, pp.1213-1218, 2020 (ESCI)
- IV. **Üç Boyutlu Yazıcı ve Tarayıcı ile Hastaya Özel Medikal Ortez Tasarımı ve Geliştirilmesi**  
AYDIN L., KÜÇÜK S.  
Politeknik Dergisi, vol.20, no.1, pp.1-8, 2017 (Peer-Reviewed Journal)
- V. **Design and Construction of Ankle Foot Orthosis By Means Of Three Dimensional Printers**  
AYDIN L., KÜÇÜK S.  
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGISI, vol.20, no.1, pp.1-8, 2017 (ESCI)
- VI. **Design and Construction of a Novel Micro-Extrusion System for Bio-printing Applications**  
AYDIN L., KÜÇÜK S., KENAR H.  
International Journal of Applied Mathematics, Electronics and Computers, vol.1, pp.52, 2016 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Surgical Planning and Additive Manufacturing of an Anatomical Model: A Case Study of a Spine Surgery**

AYDIN L., ÇAKIR Ö., DİLEK R., EGE M.

in: Medical Robotics, Küçük Serdar, Canda Abdullah Erdem, Editor, Intechopen, London, pp.211-238, 2020

## Refereed Congress / Symposium Publications in Proceedings

- I. **Omurga Cerrahisinde Ameliyat Planlama ve Optimizasyon**  
EGE M., KÜÇÜK S., ÇAKIR Ö., AYDIN L., DİLEK R., KONUK EGE G.  
Tıp Teknolojileri Kongresi (TIPTEKNO19), İzmir, Turkey, 3 - 05 October 2019, pp.580-582
- II. **Diyabetik Bireylerde Katkılı Üretim Teknolojileri ve Termoplastik Elastomer Temelli Ayak Ülserlerini Önleyici Medikal Tabanlı Geliştirilmesi ve Biyomekanik Validasyonu**  
AYDIN L., KÜÇÜK S., CANTÜRK Z., PEKER A., EGE M., YALÇIN F., KONUK EGE G.  
Tıp Teknolojileri Kongresi (TIPTEKNO19), İzmir, Turkey, 3 - 05 October 2019, pp.556-559
- III. **3D Bioprinting Of Natural Polymer Based Bio-inks For Tissue Engineering of Blood Vessel Substitutes**  
Aydın L., KÜÇÜK S., KENAR H.  
22nd International Biomedical Science and Technology Symposium (BIOMED 2017), 12 - 14 May 2017
- IV. **3D Bioprinting of a Natural Polymer-Ceramic based composite Bio-Ink for Bone Tissue Engineering Applications**  
AYDIN L., DEMİRKOL N., KENAR H.  
2nd International Symposium on 3D Printing Technologies (3D-PTS2017), 3 - 04 April 2017
- V. **Design and Construction of a Novel Micro Extrusion System for Bio printing Applications**  
AYDIN L., KÜÇÜK S., KENAR H.  
3th International Conference on Advanced Technology & Sciences, 1 - 03 September 2016, pp.1342-1346
- VI. **DESIGN AND CONSTRUCTION OF A COMPACT MICRO EXTRUSION SYSTEM FOR BIO PRINTING APPLICATIONS**  
AYDIN L., KÜÇÜK S., KENAR H.  
IV International Bioengineering conference, 13 - 14 October 2016
- VII. **Doku ve Organ Biyo Yazdırma Amaçlı 3B Biyo Yazıcı Tasarımı ve Geliştirilmesi**  
AYDIN L., KÜÇÜK S., KENAR H.  
Tıp Tekno 15, Muğla, Turkey, 15 - 18 October 2015, vol.1, pp.153-157
- VIII. **Üç boyutlu yazıcı ile ayak bileği ortezinin tasarımı ve geliştirilmesi**  
KÜÇÜK S., AYDIN L.  
Tıp teknolojileri ulusal kongresi 2014, Turkey, 25 - 27 September 2014, pp.129-132

## Supported Projects

KÜÇÜK S., KENAR H., AYDIN L., Project Supported by Higher Education Institutions, ÜÇ BOYUTLU BİYO YAZICI İLE CANLI DAMAR DOKUSU ELDESİ, 2016 - 2018

## Activities in Scientific Journals

International Journal of 3D Printing Technologies and Digital Industry, Editor, 2021 - Continues

## **Scientific Refereeing**

RAPID PROTOTYPING JOURNAL, SCI Journal, January 2020

MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING, SCI Journal, January 2020

## **Metrics**

Publication: 25

Citation (WoS): 73

Citation (Scopus): 79

H-Index (WoS): 4

H-Index (Scopus): 4

## **Non Academic Experience**

Destek Holding