Asst. Prof. Ahmet Can Erten

Personal Information

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International Researcher IDs
ORCID: 0000-0002-9496-2651
Publons / Web Of Science ResearcherID: AAE-1059-2021
ScopusID: 6506629454
Yoksis Researcher ID: 233923

Education Information

Doctorate, University of California, San Diego, Electrical And Computer Engineering, United States Of America 2005 - 2010
Postgraduate, University of California, San Diego, Electrical And Computer Engineering, United States Of America 2003 - 2005
Undergraduate, University of Southern California, Electrical Engineering, United States Of America 1999 - 2003

Foreign Languages

English, C1 Advanced

Certificates, Courses and Trainings

Education Management and Planning, Mastering Printed Electronics Principles, Western Michigan University, 2012
Education Management and Planning, Life Science Immersion Program, Biocom Institute, 2011

Dissertations

Doctorate, Development of multifunctional nanoparticles validated by an intravital tumor model, University Of California, San Diego, Electrical And Computer Engineering, Electrical Engineering, 2010

Research Areas

Biomedical Engineering, Bioengineering and MEMS, Bioinstrumentation and Microelectromechanical Systems (MEMS), Electrical and Electronics Engineering, Electronic, Nanotechnology, MEMS, Mechanical Engineering, Construction and Manufacturing, Computer Aided Design and Manufacturing, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Istanbul Technical University, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, 2018 - Continues

Courses

Microelectronics Technologies, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019
Introduction to Logic Design, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019
Basics of Electrical Circuits, Undergraduate, 2017 - 2018

Jury Memberships

Post Graduate, Tez Savunma Jurisi, Koc Universitesi, August, 2018
Doctorate, Tez Savunma Jurisi, Koc Universitesi, August, 2018

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Towards capsule endoscope locomotion in large volumes: design, fuzzy modeling, and testing**
Peker F., Beşer M. A., Işlldar E., Terzioğlu Y., Erten A. C., Kumbasar T., Ferhanoğlu O.
Robotica, vol.42, no.1, pp.203-224, 2024 (SCI-Expanded)

II. **In-situ Young’s Modulus Characterization of Elastomeric Microfluidic Chips with Micropillars**
Koksal C., Senturk E., Ferhanoğlu O., Erten A. C.
IEEE Photonics Technology Letters, vol.35, no.16, pp.895-898, 2023 (SCI-Expanded)

III. **A Resonant Pulley Rotary Actuator for Scanning Capsule Endoscopy**
Tekin E., Erten A. C., Yelten M. B., Ferhanoğlu O.
IEEE Photonics Technology Letters, vol.35, no.16, pp.891-894, 2023 (SCI-Expanded)

IV. **An Easy-to-Fabricate Microfluidic Shallow Trench Induced Three-Dimensional Cell Culturing and Imaging (STICI3D) Platform**
Coşkun U. C., Kus F., Rehman A. U., Morova B., Gülle M., Baser H., Kul D., Kiraz A., Baysal K., Erten A. C.
ACS Omega, vol.7, no.10, pp.8281-8293, 2022 (SCI-Expanded)

V. **A 3D-printed tunable fluidic lens with collagen-enriched membrane**
Senel E. C., Derman I. D., Satak S., Erten A. C., Ferhanoğlu O.
MICROSYSTEM TECHNOLOGIES-MICRO-AND NANOSYSTEMS-INFORMATION STORAGE AND PROCESSING SYSTEMS, vol.27, no.5, pp.1993-2000, 2021 (SCI-Expanded)

VI. **A 3D-printed 3D actuator for miniaturized laser scanning probes**
Gurcuoglu O., Derman I. D., Altinsoy M., Khayatzadeh R., Civitci F., Erten A. C., Ferhanoğlu O.
SENSORS AND ACTUATORS A-PHYSICAL, vol.317, 2021 (SCI-Expanded)

VII. **A micropillar-based microfluidic viscometer for Newtonian and non-Newtonian fluids**
Mustafa A., Eser A., Aksu A. C., Kiraz A., Tanyeri M., Erten A. C., Yalcin O.
ANALYTICA CHIMICA ACTA, vol.1135, pp.107-115, 2020 (SCI-Expanded)

VIII. **Size-Based Sorting of Emulsion Droplets in Microfluidic Channels Patterned with Laser-Ablated Guiding Tracks**
Rehman A. U., Coşkun U. C., Rashid Z., Morova B., Jonas A., Erten A. C., Kiraz A.
ANALYTICAL CHEMISTRY, vol.92, no.3, pp.2597-2604, 2020 (SCI-Expanded)

IX. **Technology Advancements in Blood Coagulation Measurements for Point-of-Care Diagnostic Testing**
Aria M. M., Erten A. C., Yalcin O.
FRONTIERS IN BIOENGINEERING AND BIOTECHNOLOGY, vol.7, 2019 (SCI-Expanded)

X. **Passive sorting of emulsion droplets with different interfacial properties using laser-patterned surfaces**
Rashid Z., Erten A. C., Morova B., Muradoglu M., Jonas A., Kiraz A.
MICROFLUIDICS AND NANOFLUIDICS, vol.23, no.5, 2019 (SCI-Expanded)

XI. **Guiding of emulsion droplets in microfluidic chips along shallow tracks defined by laser ablation**

Rashid Z., Coşkun U. C., Morova Y., Morova B., Bozkurt A. A., Erten A. C., Jonas A., AKTÜRK S., Kiraz A.
MICROFLUIDICS AND NANOFLUIDICS, vol.21, no.10, 2017 (SCI-Expanded)

XII. **Solid State Sensor for Simultaneous Measurement of Total Alkalinity and pH of Seawater**
BRIGGS E. M., SANDOVAL S., Erten A. C., TAKESHITA Y., KUMMEL A. C., MARTZ T. R.
ACS SENSORS, vol.2, no.9, pp.1302-1309, 2017 (SCI-Expanded)

XIII. **Enhanced Dissolution of Liquid Microdroplets in the Extensional Creeping Flow of a Hydrodynamic Trap**
Mustafa A., Erten A. C., Ayaz R. M. A., Kayillioglu O., Eser A., Eryurek M., Irfan M., Muradoglu M., Tanyeri M., Kiraz A.
LANGMUIR, vol.32, no.37, pp.9460-9467, 2016 (SCI-Expanded)

XIV. **Observation of whispering gallery modes in elastic light scattering from microdroplets optically trapped in a microfluidic channel**
Anand S., Eryurek M., Karadag Y., Erten A. C., Serpenguzel A., Jonas A., Kiraz A.
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS, vol.33, no.7, 2016 (SCI-Expanded)

XV. **Streamlined cryogenic deep reactive ion etching protocol for hybrid micronozzle arrays**
Erten A. C., MAKALE M., LU X., FRUHBERGER B., KESARİ S., ESENER S.
JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol.21, no.10, 2011 (SCI-Expanded)

XVI. **Magnetic resonance and fluorescence imaging of doxorubicin-loaded nanoparticles using a novel in vivo model**
Erten A. C., WRASİDLO W., SCADENG M., ESENER S., Hoffman R. M., BOUVET M., MAKALE M.
NANOMEDICINE-NANOTECHNOLOGY BIOLOGY AND MEDICINE, vol.6, no.6, pp.797-807, 2010 (SCI-Expanded)

XVII. **Enhancing magnetic resonance imaging tumor detection with fluorescence intensity and lifetime imaging**
Erten A. C., HALL D., HOH C., Cao H. S. I., KAUSHAL S., ESENER S., Hoffman R. M., BOUVET M., CHEN J., KESARİ S., et al.
JOURNAL OF BIOMEDICAL OPTICS, vol.15, no.6, 2010 (SCI-Expanded)

XVIII. **Microfluidic cell sorter with integrated piezoelectric actuator**
Chen C. H., CHO S. H., TSAİ F., Erten A. C., LO Y.
BIOMEDICAL MICRODEVICES, vol.11, no.6, pp.1223-1231, 2009 (SCI-Expanded)

Articles Published in Other Journals

I. **Machine learning based microfluidic sensing device for viscosity measurements**
Mustafa A., Haider D., Barua A., Tanyeri M., Erten A. C., Yalcin O.
Sensors and Diagnostics, vol.2, no.6, pp.1509-1520, 2023 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

I. **A 3D actuator for laser scanning endoscopy**
Gurcuoglu O., Derman I. D., Altinsoy M., Khayatzadeh R., Erten A. C., Civitci F., Ferhanoğlu O.
Conference on MOEMS and Miniaturized Systems XIX, San-Francisco, Costa Rica, 1 - 03 February 2020, vol.11293

II. **Nano-Crossbar based Computing: Lessons Learned and Future Directions**
Altun M., Çevik İ., Erten A. C., Eksik O., Stan M., Moritz C. A.
Design, Automation and Test in Europe Conference and Exhibition (DATE), Grenoble, France, 9 - 13 March 2020, pp.382-387

III. **Comparison of Magnetic Particle Incorporated PDMS Membrane Actuators**
Suna A., Gülle M., Erten A. C.
11th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 28 - 30 November 2019, pp.475-478

Supported Projects

Erten A. C., BAYSAL K., KİRAZ A., MURADOĞLU M., TUBITAK Project, Tümör Sferoidlerin Anjiyogenezinin ve İlaca Yanıtının İncelenmesi için 3 Boyutlu Hücre Kültürüne İzin Veren Mikroakışkan Kartuş Geliştirilmesi, 2020 - 2023
Erten A. C., TUBITAK Project, Microtem Global Coagulation Analysis System, 2019 - 2021
Erten A. C., TUBITAK Project, Koagülasyon Yolaklarının Değerlendirilmesi için Taşınabilir Tromboelastometri Cihazının Geliştirilmesi, 2015 - 2018

Scientific Refereeing

Journal of Micromechanics and Microengineering, SCI Journal, October 2018
Journal of Micromechanics and Microengineering, SCI Journal, April 2018
Journal of Micromechanics and Microengineering, SCI Journal, March 2018
Journal of Micromechanics and Microengineering, SCI Journal, January 2018
Journal of Micromechanics and Microengineering, SCI Journal, December 2017
Journal of Micromechanics and Microengineering, SCI Journal, October 2017
Journal of Micromechanics and Microengineering, SCI Journal, July 2017
Journal of Micromechanics and Microengineering, SCI Journal, April 2017
Journal of Micromechanics and Microengineering, SCI Journal, March 2017
Journal of Micromechanics and Microengineering, SCI Journal, November 2016
Journal of Micromechanics and Microengineering, SCI Journal, July 2016

Metrics

Publication: 42
Citation (WoS): 180
Citation (Scopus): 271
H-Index (WoS): 6
H-Index (Scopus): 8

Congress and Symposium Activities

NanoTR, Attendee, İzmir, Turkey, 2018
3. Biyomalzeme Gunu, Invited Speaker, Ordu, Turkey, 2016

Non Academic Experience

Oracle
Celula Inc.