

## Assoc. Prof. MUHAMMET CEYLAN

### Personal Information

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### International Researcher IDs

ScholarID: DxXt\_9kAAAAJ

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Publons / Web Of Science ResearcherID: N-3719-2014

ScopusID: 35773254900

Yoksis Researcher ID: 239849

### Education Information

Doctorate, Wichita State University, United States Of America 2022 - 2022

Postgraduate, Wichita State University {Kansas}, United States Of America 2022 - 2022

Undergraduate, Ataturk University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Turkey 2002 - 2006

### Dissertations

Doctorate, Synthesis and characterization of electrospun nanofibers for advanced drug delivery and cell culturing, Wichita State University, 2014

Postgraduate, SUPERHYDROPHOBIC BEHAVIOR OF ELECTROSPUN NANOFIBERS WITH VARIABLE ADDITIVES, Wichita State University {Kansas}, 2009

### Research Areas

Material science and engineering

### Academic Titles / Tasks

Associate Professor, Istanbul Commerce University, Mühendislik Fakültesi, Mekatronik Mühendisliği Bölümü, 2023 - Continues

### Academic and Administrative Experience

Istanbul Commerce University, 2022 - Continues

Istanbul Commerce University, 2022 - 2022

Istanbul Commerce University, 2019 - 2022

Istanbul Commerce University, 2017 - 2020

Istanbul Commerce University, 2017 - 2020

## Courses

Material And Manufacturing Technologies, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Seminer, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Technical Drawing, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017

Bilimsel Arařtırma Yöntemleri ve Etik, Postgraduate, 2021 - 2022

Finite Element Methods, Undergraduate, 2021 - 2022

Strength Of Materials, Undergraduate, 2020 - 2021, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Machine Elements, Undergraduate, 2020 - 2021, 2019 - 2020, 2017 - 2018, 2016 - 2017, 2015 - 2016

Introduction to MechatronicsEngineering, Undergraduate, 2019 - 2020

Academic Research Methods and Ethics, Postgraduate, 2019 - 2020, 2018 - 2019

Electrical Materials, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Graduation Project, Undergraduate, 2019 - 2020, 2018 - 2019

Material Characterization, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Design Project, Undergraduate, 2019 - 2020, 2018 - 2019

Forming Technologies, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Computer Aided Analysis, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Machine Element, Undergraduate, 2018 - 2019

Vocational Seminars, Undergraduate, 2018 - 2019

Jewellery Manufacturing Machines, Undergraduate, 2017 - 2018

Mücevheratta Nanoteknoloji Uygulamaları, Doctorate, 2017 - 2018

Malzeme ve Üretim Yöntemleri I, Undergraduate, 2017 - 2018

Karakterizasyon Teknikleri ve Kalite Kontrol, Postgraduate, 2017 - 2018

Material Science, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Precious Biomedical Materials, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Mechatronics System Design , Postgraduate, 2016 - 2017

Malzeme ve Üretim Yöntemleri 2, Undergraduate, 2016 - 2017

JEWELRY MANUFACTURING MACHINES, Undergraduate, 2016 - 2017, 2015 - 2016

Malzeme ve Üretim Yöntemleri 1, Undergraduate, 2016 - 2017

## Advising Theses

MUHAMMET C., Biyolojik delillerin toplanmasında nanoteknolojik yaklaşımlar: Biyoyumlu, biyobozunur ve antimikrobiyal eküvyon çubuğu, Postgraduate, B.ŞENGEL(Student), 2022

MUHAMMET C., Production of composite with additives by hand lay-up process, Postgraduate, E.DİREK(Student), 2022

MUHAMMET C., Elektrospinning yöntemi ile silika aerojel ve polikaprolakton nanoliflerin üretimi, Postgraduate, E.BURCU(Student), 2021

## Jury Memberships

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Marmara Üniversitesi, December, 2024

Doctoral Examination, Doctoral Examination, Marmara Üniversitesi, November, 2024

Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, November, 2024

Doctorate, Doctorate, Marmara Üniversitesi, October, 2024

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Marmara Üniversitesi, October, 2024

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Marmara Üniversitesi, May, 2024

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Marmara Üniversitesi, May,

2024

Post Graduate, Post Graduate, Marmara Üniversitesi, May, 2024

Doctoral Examination, Doctoral Examination, Marmara Üniversitesi, April, 2024

Doctoral Examination, Doctoral Examination, Marmara Üniversitesi, November, 2023

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Marmara Üniversitesi, November, 2023

Doctoral Examination, Doctoral Examination, Marmara Üniversitesi, November, 2023

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Marmara Üniversitesi, October, 2023

Post Graduate, Post Graduate, Marmara Üniversitesi, July, 2023

Post Graduate, Post Graduate, Marmara Üniversitesi, June, 2023

Doctorate, Doctorate, Marmara Üniversitesi, April, 2023

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

- I. **Biodegradable Polycaprolactone Fibers with Silica Aerogel and Nanosilver Particles Produce a Coagulation Effect**  
Ayvazoğlu B. Ş., CEYLAN M., Turan A. A. I., Yılmaz E. B.  
Polymers, vol.15, no.9, 2023 (SCI-Expanded)
- II. **Fabrication of Polycaprolactone-Silica Aerogel Nanofibers via Electrospinning Method**  
CEYLAN M., Yılmaz E. B.  
Journal of Nano Research, vol.73, pp.161-174, 2022 (SCI-Expanded)
- III. **Reduced toxicity of protein/magnetic targeted drug delivery system for improved skin cancer treatment in mice model**  
CEYLAN M., Misak H. E., Strong N., Yang S., Asmatulu R.  
Journal of Magnetism and Magnetic Materials, vol.539, 2021 (SCI-Expanded)
- IV. **Wear behavior of irregular shape ti6al4v powder reinforced with carbon nanotubes**  
CEYLAN M., Topcu İ.  
Journal of Ceramic Processing Research, vol.21, no.5, pp.539-546, 2020 (SCI-Expanded)
- V. **Experimental investigation on mechanical properties of multi wall carbon nanotubes (Mwcnt) reinforced aluminium metal matrix composites**  
Topcu İ., CEYLAN M., Yılmaz E. B.  
Journal of Ceramic Processing Research, vol.21, no.5, pp.596-601, 2020 (SCI-Expanded)
- VI. **Synthesis and analysis of injection-molded nanocomposites of recycled high-density polyethylene incorporated with graphene nanoflakes**  
Asmatulu R., Khan W. S., Reddy R. J., CEYLAN M.  
Polymer Composites, vol.36, no.9, pp.1565-1573, 2015 (SCI-Expanded)
- VII. **Enhancing thermal and ionic conductivities of electrospun PAN and PMMA nanofibers by graphene nanoflake additions for battery-separator applications**  
Khan W., Asmatulu R., Rodriguez V., CEYLAN M.  
International Journal of Energy Research, vol.38, no.15, pp.2044-2051, 2014 (SCI-Expanded)
- VIII. **Nanofibers support oligodendrocyte precursor cell growth and function as a neuron-free model for myelination study**  
Li Y., CEYLAN M., Shrestha B., Wang H., Lu Q. R., Asmatulu R., Yao L.  
Biomacromolecules, vol.15, no.1, pp.319-326, 2014 (SCI-Expanded)
- IX. **Recent progress on conventional and non-conventional electrospinning processes**  
Khan W., Asmatulu R., CEYLAN M., Jabbarnia A.  
Fibers and Polymers, vol.14, no.8, pp.1235-1247, 2013 (SCI-Expanded)
- X. **Superhydrophobic electrospun nanofibers**  
Nuraje N., Khan W. S., Lei Y., CEYLAN M., Asmatulu R.

Journal of Materials Chemistry A, vol.1, no.6, pp.1929-1946, 2013 (SCI-Expanded)

**XI. Study of superhydrophobic electrospun nanocomposite fibers for energy systems**

Asmatulu R., CEYLAN M., Nuraje N.

Langmuir, vol.27, no.2, pp.504-507, 2011 (SCI-Expanded)

## Articles Published in Other Journals

**I. Küresel Bulanık Ortamda Çok Kriterli Karar Verme Yöntemleri ile Demir Çelik Sektöründe Tedarikçi Seçimi**

Simge Baysal Z., AYVAZ B., CEYLAN M.

International journal of advances in engineering and pure sciences (Online), vol.36, no.2, pp.116-133, 2024 (Peer-Reviewed Journal)

**II. STUDYING THE ELECTROCHEMICAL BEHAVIORS OF ANODIZED METALLIC IMPLANTS FOR IMPROVED CORROSION RESISTANCE**

MURAD M. S., USTA A., ASMATULU R., CEYLAN M.

İstanbul Ticaret Üniversitesi Fen Bilimleri Dergisi, vol.21, no.41, pp.117-135, 2022 (Peer-Reviewed Journal)

**III. Synthesis and evaluation of electrospun PCL-plasmid DNA nanofibers for post cancer treatments**

CEYLAN M., Asmatulu R., Jiang J., Usta A., Jia T., Yao L., Yang S.

Materials Today: Proceedings, vol.71, pp.58-63, 2022 (Scopus)

**IV. EFFECTS OF GENTAMICIN LOADED PCL NANOFIBERS TO CELL VIABILITY AND RELEASE RATE OF PLASMID DNA**

CEYLAN M., YANG S. y., ASMATULU R.

Eskişehir Teknik Üniversitesi Bilim ve Teknoloji Dergisi b- Teorik Bilimler, vol.8, no.2, pp.293-302, 2020 (Peer-Reviewed Journal)

**V. SYNTHESIS AND CHARACTERIZATION OF POLYCAPROLACTONE NANOCOMPOSITE FIBER WITH TITANIUM DIOXIDE ADDITIVES**

YILMAZ E. B., CEYLAN M.

Eskişehir Teknik Üniversitesi Bilim ve Teknoloji Dergisi b- Teorik Bilimler, vol.8, no.2, pp.257-265, 2020 (Peer-Reviewed Journal)

**VI. SYNTHESIS AND CHARACTERIZATION OF PLATINUM NANOCOMPOSITES**

CEYLAN M., TEPEKIRAN B. N.

Eskişehir Teknik Üniversitesi Bilim ve Teknoloji Dergisi b- Teorik Bilimler, vol.6, no.2, pp.250-256, 2018 (Peer-Reviewed Journal)

**VII. CHEMICAL AND THERMAL INVESTIGATIONS OF ELECTROSPUN POLYACRYLONITRILE NANOFIBERS INCORPORATED WITH VARIOUS NANOSCALE INCLUSIONS**

Khan W. S., CEYLAN M., JABBARNÍ A., SAEEDNÍ A L., Asmatulu R.

Journal of Thermal Engineering, vol.3, no.5, pp.1375-1390, 2017 (Scopus)

**VIII. Effects of gentamicin-loaded PCL nanofibers on growth of Gram positive and Gram negative bacteria**

CEYLAN M., Yang S. Y., Asmatulu R.

International Journal of Applied Microbiology and Biotechnology Research, vol.5, no.5, pp.40-51, 2017 (Peer-Reviewed Journal)

**IX. Poly-ε-caprolactone electrospun nanofiber mesh as a gene delivery tool**

Jiang J., CEYLAN M., Zheng Y., Yao L., Asmatulu R., Yang S. Y.

AIMS BIOENGINEERING, vol.3, no.4, pp.528-537, 2016 (Peer-Reviewed Journal)

**X. Antibacterial Polycaprolactone/Natural Hydroxyapatite Nanocomposite Fibers for Bone Scaffoldings**

Asmatulu R., Patrick S., CEYLAN M., Ahmed I., Yang S. y., Nuraje N.

JOURNAL OF BIONANOSCIENCE, vol.9, no.2, pp.120-126, 2015 (Scopus)

## Books & Book Chapters

- I. **Self-cleaning of Glass Surfaces through Surface Hydrophobicity**  
Khan W. S., CEYLAN M., Asmatulu R.  
in: Comprehensive Guide for Nanocoatings Technology, Volume 4: Application and Commercialization, Aliofkhazraei Mahmood, Editor, Nova Science Publishers, New York, pp.217-233, 2015

## Refereed Congress / Symposium Publications in Proceedings

- I. **Il-21 vector-tethering nanofibers for cancer treatment including osteosarcoma**  
Gong X, Jiang J, CEYLAN M., Dart B., Asmatulu R., Yang S.  
42nd Society for Biomaterials Annual Meeting and Exposition 2019: The Pinnacle of Biomaterials Innovation and Excellence, Washington, United States Of America, 3 - 06 April 2019, vol.40, pp.573
- II. **Synthesis and Characterization of PCL Nanocomposite Fiber with TiO<sub>2</sub> Additives**  
YILMAZ E. B., CEYLAN M.  
NANOTR 14, İzmir, Turkey, 22 - 25 September 2018
- III. **FABRICATION AND CHARACTERIZATION OF SILVER FLAKE NANO COMPOSITE**  
CEYLAN M., Yilmaz E. B.  
NANOTR 13, Antalya, Turkey, 22 - 25 October 2017
- IV. **SYNTHESIS AND CHARACTERIZATION OF PLATINUM NANOCOMPOSITES**  
CEYLAN M., Tepekıran B. N.  
NANOTR 13, Antalya, Turkey, 22 - 25 October 2017
- V. **Synthesis and Analysis of Electrospun Nanofiber Separators for Supercapacitors**  
JABBARNIA A., GHAZINEZAMI A., CEYLAN M., ASMATULU R.  
SAMPE Fall Technical Conference, Wichita, United States Of America, 21 - 24 October 2014
- VI. **Antibacterial polyelectrolyte-coated Mg alloys for biomedical applications**  
SERAZ M., ASMATULU R., CHEN Z., CEYLAN M., MAHAPATRO A., YANG S. Y.  
SPIE Smart Structures/Non-destructive Evaluation Conference, San Diego, San Diego, United States Of America, 9 - 13 March 2014, vol.9060
- VII. **An Electrospun Polyaniline Nanofibers as a Novel Platform for Real-time Cox-2 Biomarker Detection**  
VEIŠI Z., CEYLAN M., MAHAPATRO A., ASMATULU R.  
An Electrospun Polyaniline Nanofibers as a Novel Platform for Real-time Cox-2 Biomarker Detection, San Diego, United States Of America, 15 - 21 November 2013, vol.3
- VIII. **Poly-e-caprolactone (PCL) Electrospun Nanofiber as a Gene Delivery Tool**  
JIANG J., CEYLAN M., WOOLEY P. H., ASMATULU R., YANG S. Y.  
60th Annual Meeting of the Orthopedic Research Society, New Orleans, United States Of America, 15 - 18 March 2014
- IX. **RECENT PROGRESS IN MECHANICAL AND BIOLOGICAL PROPERTIES OF BIOMATERIALS USED AS BONE SCAFFOLDS**  
Saeednia L., CEYLAN M., ASMATULU R.  
SAMPE Fall Technical Conference, Wichita, United States Of America, 21 October 2013
- X. **Promoting Nanotechnology Education to Midwestern High School Students for Higher Enrolment Rates in Engineering Education**  
CEYLAN M., USTA A., Barut E., ERGUL N., ASMATULU R.  
ASEE Midwest Section Conference, Salina, United States Of America, 18 September 2013
- XI. **Effects of Hands-on Nanotechnology Training on the Retention and Success Rates of Freshmen Students at WSU**  
CEYLAN M., USTA A., Barut E., ASMATULU R.  
ASEE Midwest Section Conference, Salina, United States Of America, 18 September 2013
- XII. **Study of Antibacterial Polycaprolactone/Natural Hydroxyapatite Composite Nanofibers for Bone**

**Tissue Scaffolds, The V International Workshop on Technology and New Materials for Industry**

PATRICK S., CEYLAN M., YANG S., AHMED I., NURAJE N., ASMATULU R.

Environment and Health Protection, Issyk-Kul, Kyrgyzstan, 16 September 2013

- XIII. **Gene Delivery with PCL Nanofiber in Vitro**  
CEYLAN M., JIANG J. H., YANG S. Y., ASMATULU R.  
9th Graduate Research and Scholarly Projects (GRASP) Symposium, Wichita, United States Of America, 08 May 2013
- XIV. **Characterization of Oligodendrocyte Progenitor Cell Differentiation on Co-Electrospun PCL Nanofibers with Gelatin**  
SHRESTHA B., CEYLAN M., MOON A., WANG H., LU Q., ASMATULU R., YAO L.  
K-INBRE 2013 Symposium, Wichita, United States Of America, 19 - 20 January 2013
- XV. **FABRICATION AND CHARACTERIZATION OF GRAPHENE BASED PCL BIONANOCOMPOSITES FOR SCAFFOLDING**  
KHAN W., HA D., CEYLAN M., ZHANG B., Patlolla V., NURAJE N., ASMATULU R.  
SAMPE Fall Technical Conference, Charlestown, Saint Kitts And Nevis, 22 October 2012
- XVI. **THERMALLY CONDUCTIVE NANOCOMPOSITE FIBERS FOR LITHIUM-ION BATTERY MEMBRANES**  
KHAN W., Rodriguez V., CEYLAN M., Patlolla V., Misak H., ASMATULU R.  
SAMPE Fall Technical Conference, Charlestown, Saint Kitts And Nevis, 22 October 2012
- XVII. **EFFECTS OF NANOTECHNOLOGY ON GLOBAL WARMING**  
KHAN W., CEYLAN M., ASMATULU E., ASMATULU R.  
ASEE Midwest Section Conference, Rollo, United States Of America, 19 September 2012
- XVIII. **SUSTAINABILITY OF NANOTECHNOLOGY AND ENGINEERING EDUCATION**  
KHAN W., CEYLAN M., ZHANG B., ASMATULU R.  
ASEE Midwest Section Conference, Rollo, United States Of America, 19 September 2012
- XIX. **DEVELOPMENT OF LOW PRESSURE FILTER TESTING VESSEL AND ANALYSIS OF ELECTROSPUN NANOFIBER MEMBRANES FOR WATER TREATMENT**  
CEYLAN M., Nilsen K., Misak H., ASMATULU R.  
Proceedings of the ASME 2011 International Mechanical Engineering Congress & Exposition IMECE2011, Denver, United States Of America, 11 - 17 November 2011, vol.2, pp.121-126
- XX. **ENHANCING THE SUPERHYDROPHOBIC BEHAVIOR OF ELECTROSPUN FIBERS VIA GRAPHENE ADDITION AND HEAT TREATMENT**  
CEYLAN M., ASMATULU R.  
Proceedings of the ASME 2010 International Mechanical Engineering Congress & Exposition, Vancouver, Canada, 12 November 2010 - 18 November 2011, vol.5, pp.1441-1447
- XXI. **Nanotechnology to Address Global Warming**  
CEYLAN M., ASMATULU E., ASMATULU R.  
The Annual NSF EPSCoR Statewide Conference, Wichita, United States Of America, 12 January 2012
- XXII. **Physical Properties of Injection Molded Graphene Nanocomposites from Recycled Plastics**  
ASMATULU R., KHAN W., REDDY R. J., CEYLAN M., MISAK H.  
SAMPE Fall Technical Conference, Fort Worth, Fort Worth, United States Of America, 17 - 20 October 2011
- XXIII. **SUPERHYDROPHOBIC NANOCOMPOSITE FIBERS FROM RECYCLED PLASTICS**  
ASMATULU R., DANDIN V., DAVLURI S., CEYLAN M., KHAN W.  
SAMPE Fall Technical Conference, Salt Lake City, United States Of America, 11 October 2010
- XXIV. **Biotechnology and Bioethics in Engineering Education**  
ASMATULU R., KHAN W., ASMATULU E., CEYLAN M.  
ASEE Midwest Conference, Lawrence, Lawrence, United States Of America, 22 September 2010
- XXV. **SUPERHYDROPHOBIC BEHAVIOR OF ELECTROSPUN MICRO AND NANOFIBERS**  
CEYLAN M., ASMATULU R., KHAN W., NURAJE N.  
SAMPE Fall Technical Conference, Wichita, United States Of America, 19 October 2009
- XXVI. **Bacterial surface contact and adhesion on polymeric biomaterials**  
Lakounga H., CEYLAN M., ASMATULU R., Schneegurt M.

5th Annual Mountain West Biomedical Engineering Conference, Salt Lake City, United States Of America, 01  
September 2009

### **Scientific Refereeing**

JOURNAL OF MATERIALS SCIENCE, SCI Journal, June 2024

JOURNAL OF MATERIALS SCIENCE, SCI Journal, June 2024

COATINGS, SCI Journal, June 2024

MOLECULES, SCI Journal, April 2024

ANTIBIOTICS, SCI Journal, April 2024

MOLECULES, SCI Journal, January 2024

GELS, SCI Journal, November 2023

SEPARATIONS, SCI Journal, November 2023

GELS, SCI Journal, September 2023

INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, SCI Journal, August 2023

FOODS, SCI Journal, July 2023

SUSTAINABILITY, SCI Journal, June 2023

GELS, SCI Journal, June 2023

### **Scientific Research / Working Group Memberships**

Material Science, Istanbul Commerce University, Turkey, <https://avesis.ticaret.edu.tr/mceylan>, 2024 - Continues