

## Assoc. Prof. NESRİN ŞAHBAZ KARADUMAN

### Personal Information

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### International Researcher IDs

ScholarID: Cd7ezn0AAAAJ

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Publons / Web Of Science ResearcherID: E-1637-2014

ScopusID: 55941358200

Yoksis Researcher ID: 46375

### Education Information

Doctorate, Erciyes University, Fen Bilimleri Enstitüsü, Tekstil Mühendisliği (Dr), Turkey 2010 - 2013

Postgraduate, Erciyes University, Fen Bilimleri Enstitüsü, Tekstil Mühendisliği (YI) (Tezli), Turkey 2007 - 2009

Undergraduate, Afyon Kocatepe University, Uşak Mühendislik Fakültesi, Tekstil Mühendisliği Pr. , Turkey 2003 - 2007

### Dissertations

Doctorate, Üç boyutlu (3D) dairesel saç örgüler ve geometrik karakteristikleri, Erciyes University, Fen Bilimleri Enstitüsü, Tekstil Mühendisliği (Dr), 2013

Postgraduate, Üç boyutlu (3D) saç örgülerin topolojik esaslı geometrik karakteristiği ve birim hücrelerin bilgisayar uygulamaları, Erciyes University, Fen Bilimleri Enstitüsü, Tekstil Mühendisliği (YI) (Tezli), 2009

### Research Areas

Textile Engineering and Technology, Textile Materials, Cloth Technology, Technical Textiles, Material science and engineering, Composites, Polymeric Materials, Biomaterials, Cellulosic Materials, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Yozgat Bozok University, Yozgat Meslek Yüksekokulu, Tasarım Bölümü, 2023 - Continues

Assistant Professor, Yozgat Bozok University, Yozgat Meslek Yüksekokulu, Tasarım Bölümü, 2022 - 2023

Assistant Professor, Yozgat Bozok University, Akdağmadeni Meslek Yüksekokulu, Tekstil, Giyim, Ayakkabı ve Deri, 2014 - 2022

### Academic and Administrative Experience

Rector's Advisor, Yozgat Bozok University, Yozgat Meslek Yüksekokulu, Tasarım Bölümü, 2023 - Continues

Head of Department, Yozgat Bozok University, Akdağmadeni Meslek Yüksekokulu, Tekstil, Giyim, Ayakkabı ve Deri, 2019 - 2021

Head of Department, Yozgat Bozok University, Akdağmadeni Meslek Yüksekokulu, Tekstil, Giyim, Ayakkabı ve Deri, 2014 - 2014

## Courses

- GYT1008.1 Dokuma Teknolojisi, Associate Degree, 2020 - 2021  
GYT2018.1 Kalite Güvencesi ve Standartları, Associate Degree, 2020 - 2021  
GYT2013.1 İplik Teknolojisi, Associate Degree, 2020 - 2021  
GYT2012.1 Örmek Teknolojisi, Associate Degree, 2020 - 2021  
GYT2007.1 Araştırma Yöntem ve Teknikleri, Associate Degree, 2020 - 2021  
GYT2005.1 Üretim Planlaması, Associate Degree, 2020 - 2021  
GYT2010.1 Terbiye Teknolojisi, Associate Degree, 2020 - 2021  
TKS2013.1 Renk Haslık Testleri I, Associate Degree, 2020 - 2021  
TKS2007.1 Konfeksiyon testleri, Associate Degree, 2020 - 2021  
GYT2004.1 Proje Hazırlama, Associate Degree, 2019 - 2020  
Yapay Lifler, Associate Degree, 2015 - 2016  
Doğal Lifler, Associate Degree, 2015 - 2016

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

- I. **Ultrasonication-assisted alkali treatment of hemp fibers to improve the fiber/matrix interface of hemp/epoxy composites: The influence of sodium dodecyl sulfate surfactant**  
Karaduman Y., Seçinti Klopf H., Şahbaz Karaduman N.  
POLYMER COMPOSITES, vol.1, no.1, pp.1-15, 2024 (SCI-Expanded)
- II. **Production of quasi-unidirectional woven fabrics from water-retted hemp fibers and mechanical characterization of their composites**  
Karaduman Y., Şahbaz Karaduman N., Seçinti Klopf H.  
JOURNAL OF COMPOSITE MATERIALS, pp.1-14, 2023 (SCI-Expanded)
- III. **Effect of stacking sequence on the mechanical properties of non-interlaced multiaxial jute yarn/epoxy composites**  
Şahbaz Karaduman N., Karaduman Y.  
JOURNAL OF COMPOSITE MATERIALS, vol.56, no.13, pp.2083-2094, 2022 (SCI-Expanded)
- IV. **Experimental investigation of the effect of weave type on the mechanical properties of woven hemp fabric/epoxy composites**  
Şahbaz Karaduman N.  
JOURNAL OF COMPOSITE MATERIALS, vol.56, pp.1255-1265, 2022 (SCI-Expanded)
- V. **Developments of Multi-nanostitched 3D Carbon/epoxy Nanocomposites: Tensile/shear and Interlaminar Properties**  
Bilişik A., Erdogan G., Şahbaz Karaduman N., Sapancı E.  
APPLIED COMPOSITE MATERIALS, vol.29, no.1, pp.3-26, 2022 (SCI-Expanded)
- VI. **Short-beam shear of nanoprepreg/nanostitched three-dimensional carbon/epoxy multiwall carbon nanotube composites**  
Bilişik A., Şahbaz Karaduman N., Sapancı E.  
JOURNAL OF COMPOSITE MATERIALS, vol.54, no.3, pp.311-329, 2020 (SCI-Expanded)
- VII. **In-plane shear of nanoprepreg/nanostitched three-dimensional carbon/epoxy multiwalled carbon nanotubes composites**  
Bilisik K., Şahbaz Karaduman N., Erdogan G., Sapancı E., Gungor S.

- JOURNAL OF COMPOSITE MATERIALS, vol.53, no.24, pp.3413-3431, 2019 (SCI-Expanded)
- VIII. **Flexural characterization of 3D prepreg/stitched carbon/epoxy/multiwalled carbon nanotube preforms and composites**  
Bilisik K., Şahbaz Karaduman N., Sapancı E.  
JOURNAL OF COMPOSITE MATERIALS, vol.53, no.5, pp.563-577, 2019 (SCI-Expanded)
- IX. **Tensile properties of nanopreg/nanostitched 3D carbon/epoxy MWCNTs composites**  
Bilisik K., Şahbaz Karaduman N., Sapancı E.  
MECHANICS OF MATERIALS, vol.128, pp.11-23, 2019 (SCI-Expanded)
- X. **Three- dimensional circular various weave patterns in woven preform structures**  
Bilisik K., Karaduman N., Bilisik N. E., Bilisik H. E.  
TEXTILE RESEARCH JOURNAL, vol.84, no.6, pp.638-654, 2014 (SCI-Expanded)
- XI. **Three-dimensional fully interlaced woven preforms for composites**  
Bilisik K., Karaduman N., Bilisik N. E., Bilisik H. E.  
TEXTILE RESEARCH JOURNAL, vol.83, no.19, pp.2060-2084, 2013 (SCI-Expanded)
- XII. **Structure-unit cell-based approach on three-dimensional representative braided preforms from four-step braiding: Experimental determination of effects of structure-process parameters on predetermined yarn path**  
Bilisik K., Sahbaz N.  
TEXTILE RESEARCH JOURNAL, vol.82, no.3, pp.220-241, 2012 (SCI-Expanded)

## Articles Published in Other Journals

- I. **An investigation on the antimicrobial activity of hemp fiber and fabrics against common nasocomial infection agents**  
Yüksek A., GÜDÜL Havuz S., Şahbaz Karaduman N., Şimşek H., Honca M.  
Çukurova Anestezi ve Cerrahi Bilimler Dergisi, vol.5, no.2, pp.137-144, 2022 (Peer-Reviewed Journal)
- II. **Geometric Characterization of Three-Dimensional (3D) Woven Jute Fiber Preforms for Composites**  
Şahbaz Karaduman N.  
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, vol.17, no.2, pp.121-128, 2021 (Peer-Reviewed Journal)
- III. **Toughness Properties of Nanostitched and Nanopreg Carbon Epoxy Materials**  
Bilişik A., Güler G., Şahbaz Karaduman N., Sapancı E., Güngör S.  
Current Trends in Fashion Technology Textile Engineering, vol.1, no.2, pp.1-4, 2017 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Adli Tekstil**  
Şahbaz Karaduman N., Karaduman Y., Demir N.  
in: Adli Bilimler ve Kriminalistik Ansiklopedisi cilt 9, Hamit İ. Hancı, Ogün Vural, Editor, Adalet Yayınevi, Ankara, pp.4659-4678, 2023
- II. **Adli Elyaf (Lif)**  
Karaduman Y., Şahbaz Karaduman N., Polat M. F.  
in: Adli Bilimler ve Kriminalistik Ansiklopedisi cilt 10, Hamit İ. Hancı, Ogün Vural, Editor, Adalet Yayınevi, Ankara, pp.5245-5266, 2023
- III. **Thermo-comfort medical textiles for patients**  
ŞAHBAZ KARADUMAN N., KARADUMAN Y.  
in: Medical Textiles from Natural Resources, Mondal Ibrahim, Editor, Elsevier, The Textile Institute Book Series, Cambridge, pp.395-409, 2022
- IV. **High-performance thermal and cold protective clothing**  
KARADUMAN Y., ŞAHBAZ KARADUMAN N.

in: Protective Textiles from Natural Resources, Mondal Ibrahim, Editor, Elsevier, The Textile Institute Book Series, Cambridge, pp.295-315, 2022

V. **Various fabrication methods employed in fiber reinforced composites**

ŞAHBAZ KARADUMAN N., KARADUMAN Y.

in: Fiber Reinforced Composites: Constituents, Compatibility, Perspectives, and Applications, Joseph Kuruvilla, Oksman Kristiina, George Gejo, Wilson Runcy, Appukkuttan Saritha, Editor, Elsevier, Kidlington, pp.25-45, 2021

VI. **Interfacial Modification of Hemp Fiber-Reinforced Composites**

Karaduman Y., Özdemir H., Şahbaz Karaduman N., Özdemir G.

in: Natural and Artificial Fiber-Reinforced Composites as Renewable Sources, Ezgi Günay, Editor, Intech, Londrina, pp.17-39, 2018

VII. **Interfacial Modification of Polypropylene-Based Biocomposites and Bionanocomposites**

KARADUMAN Y., ŞAHBAZ KARADUMAN N.

in: Polypropylene-Based Biocomposites and Bionanocomposites, Visakh. P. M. and Matheus Poletto, Editor, John Wiley and Sons, Hoboken, NJ, pp.315-347, 2018

VIII. **Textile Reinforced Structural Composites for Advanced Applications**

ŞAHBAZ KARADUMAN N., KARADUMAN Y., ÖZDEMİR H., ÖZDEMİR G.

in: Textiles for Advanced Applications, Kumar Bipin, Thakur Suman, Editor, Intech, pp.87-133, 2017

IX. **Fiber Architectures for Composite Applications**

BİLİŞİK A., ŞAHBAZ KARADUMAN N., BİLİŞİK N. E.

in: Fibrous and Textile Materials for Composite Applications, Rana Sohel, Fanguero Raul, Editor, Springer, pp.75-134, 2016

X. **3D Fabrics for Technical Textile Applications**

BİLİŞİK A., ŞAHBAZ KARADUMAN N., BİLİŞİK N. E.

in: Non woven Fabrics, Jeon Han-Yong, Editor, Intech, Rijeka, pp.81-141, 2016

XI. **Applications of Braided Structures in Transportation**

BİLİŞİK A., ŞAHBAZ KARADUMAN N., BİLİŞİK N. E.

in: Braided Structures and Composites Production Properties Mechanics and Technical Applications, Rana Sohel, Fanguero Raul, Editor, Taylor and Francis, Boca Raton, FL, pp.255-296, 2015

## Refereed Congress / Symposium Publications in Proceedings

I. **Tek Yönlü Kenevir Kumaş Takviyeli Epoksi Kompozitlerinin Eğilme Davranışına İplik Yönlümesinin Etkisi**

Şahbaz Karaduman N.

VIII. Uluslararası Katılımlı Polimer Bilim ve Teknoloji Kongresi, Malatya, Turkey, 20 - 23 June 2022, pp.76

II. **In-Plane Shear and Interlaminar Fracture Toughness Properties of MWCNT stitched Para-aramid/Phenolic Nanocomposites**

Bilişik A., Güler G., Şahbaz Karaduman N., Sapancı E., Güngör S.

2nd International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Ankara, Turkey, 18 - 22 August 2021, pp.1-2

III. **Multi-Nanostitched 3D Carbon/Epoxy Nanocomposites: Tensile/Shear and Interlaminar Properties**

Bilişik A., Güler G., Şahbaz Karaduman N., Sapancı E.

Proceedings of the 9th World Conference in 3D Fabrics and Their Applications, Zhengzhou, China, 8 - 09 April 2021, pp.1-12

IV. **Tensile Characterization of 3D Nanostitched P-Aramid/ Phenolic MWCNTs Composites**

Bilişik A., Şahbaz Karaduman N., Güler G., Kaya G., Sapancı E., Güngör S.

IOP Conf. Series: Materials Science and Engineering, Milan, Italy, 19 - 20 September 2018, pp.1-8

V. **Tensile Characterization of 3D Nanostitched P-Aramid/ Phenolic MWCNTs Composites**

Bilişik A., Güler G., Şahbaz Karaduman N., Sapancı E., Kaya G., Güngör S.

13th International Conference on Textile Composites (TEXCOMP-13), Milan, Italy, 17 September 2018, pp.1-8

- VI. **Bending Properties of Aramid/Phenolic Carbon Nanotube Preform (MWCNTS) Structures**  
Bilişik A., Şahbaz Karaduman N., Güler G., Kaya G., Sapancı E., Güngör S.  
7th International Technical Textiles Conference, İzmir, Turkey, 10 - 12 September 2018, pp.1-8
- VII. **Bending Behavior of Nanoprepreg 3D Carbon/Epoxy MWCNT Composites**  
Bilişik A., Şahbaz Karaduman N., Güler G., Sapancı E., Güngör S.  
8th International Istanbul Textile Conference Evolution of Technical Textiles (ETT2018), İstanbul, Turkey, 14 - 16 April 2018, pp.44
- VIII. **Tensile characterization of 3D nanostitched p-aramid/phenolic MWCNTs composites**  
Bilişik A., Erdogan G., Karaduman N., Kaya G., Sapancı E., Gungor S.  
13th International Conference on Textile Composites (TEXCOMP), Milan, Italy, 17 - 19 September 2018, vol.406
- IX. **Mode-I properties of nanoprepreg structures**  
Bilişik A., Şahbaz Karaduman N., Güler G., Sapancı E., Güngör S.  
2nd International Mediterranean Science and Engineering Congress (IMSEC 2017), Adana, Turkey, 25 October 2017, pp.225-229
- X. **Fracture toughness (Mode I) of multistitched carbon/epoxy nanoprepreg composites**  
Bilişik A., Şahbaz Karaduman N., Güler G., Sapancı E., Güngör S.  
NANO-TR 13, Antalya, Turkey, 22 - 25 October 2017, pp.295-300
- XI. **Delamination (Mode I) properties of stitched nano composites**  
Bilişik A., Güler G., Şahbaz Karaduman N.  
8th Texteh International Conference, Creating the future of textiles, Bucuresti, Romania, 19 - 20 October 2017, pp.70
- XII. **Delamination (Mode I) properties of nano composites.**  
Bilişik A., Güler G., Şahbaz Karaduman N.  
8th Texteh International Conference, Bucuresti, Romania, 19 October 2017, pp.1-7
- XIII. **Characterization of fracture toughness properties of nanostitched / nanoprepreg composites**  
Bilişik A., Şahbaz Karaduman N., Güler G., Sapancı E., Güngör S.  
International Porous Powder Material (PPM), İzmir, Turkey, 13 - 15 September 2017, pp.269-273
- XIV. **Fracture Toughness of Nanostitching/Nanoprepreg Carbon/Epoxy Composites**  
Bilişik A., Şahbaz Karaduman N., Güler G., Sapancı E., Güngör S.  
25th International Conference on Composites or Nano Engineering (ICCE-25), Rome, Italy, 16 July 2017, pp.1-8
- XV. **In plane Tensile and Shear Properties of Multistitched Nano Composites**  
Bilişik A., Kaya G., Şahbaz Karaduman N.  
ECRES 2016 - IV. European Conference on Renewable Energy Systems, İstanbul, Turkey, 28 - 31 August 2016, pp.256-262
- XVI. **Three Dimensional Circular Woven Structures for Possible Artifical Organ Applications**  
Bilişik A., Şahbaz Karaduman N., Bilişik N. E., Bilişik H. E.  
2nd International Congress on Healthcare and Medical Textiles, İzmir, Turkey, 25 - 26 December 2014, pp.1-8
- XVII. **Three dimensional circular woven structures for possible artificial organ applications**  
BİLİŞİK A., ŞAHBAZ KARADUMAN N., BİLİŞİK N. E., BİLİŞİK H. E.  
MEDITEX - 2nd International Congress on Healthcare and Medical Textiles, İzmir, Turkey, 25 - 26 September 2014, pp.69-73
- XVIII. **Three Dimensional Interlaced Woven Preforms for Composites**  
Bilişik A., Şahbaz Karaduman N.  
4th Autex World Textile Conference, Bursa, Turkey, 24 May 2014, pp.1-10
- XIX. **The geometric characterization of three dimensional 3D braidings and computer application of their unit cell.**  
Bilişik A., Şahbaz Karaduman N.  
The 3rd World Conference on 3D Fabrics and Their Applications, Niğde, Turkey, 16 June 2011, pp.107-111
- XX. **Üç Boyutlu (3D) Saç Örgüler İçin Bir Üretim Yönteminin Geliştirilmesi: 4-Adımlı Saç Örgüler İçin Konsept Tasarım İlkeleri ve Saç Örgülerin Birim Hücre Esaslı Geometrik Karakteristikleri**  
BİLİŞİK A., ŞAHBAZ KARADUMAN N.

## Other Publications

### I. Toughness Properties of Nanostitched and Nanoprepreg Carbon/Epoxy Materials

Bilişik A., Güler G., Şahbaz Karaduman N., Sapancı E., Güngör S.

Other, pp.1-4, 2017

## Supported Projects

ŞAHBAZ KARADUMAN N., KARADUMAN Y., ERBAKAN M., YAZICI L., Project Supported by Higher Education Institutions, Giysilerde Terleme Sonucu Kötü Kokuya Neden Olan Bakterilere Karşı Kenevir Kumaşının ve Kenevir Ekstraktının Antimikrobiyal Etkinliğinin Araştırılması, 2021 - Continues

Karaduman Y., Şahbaz Karaduman N., Seçinti Klopff H., TÜBİTAK Project, Kenevir Lifi Takviyeli Polimer Kompozitlerde Lif/Matris Arayüzünün Geliştirilmesinde Mikrodalga Reaksiyonlarının Kullanımı, 2024 - 2025

KARADUMAN Y., ŞAHBAZ KARADUMAN N., DÜNDAR M. A., SEÇİNTİ KLOPF H., Project Supported by Higher Education Institutions, Kenevir Lifi Saç Örgü/Dokuma Yapısal Hibrit Kumaşlarla Takviye Edilmiş Polimer Kompozitlerin Mekanik Özellikleri, 2021 - 2024

Şahbaz Karaduman N., Yılmaz S., Uğuz Ş., TÜBİTAK Project, Kenevir esash dokuma kumasın bazı mantarlara karşı antimikrobiyal etkinliğinin araştırılması, 2021 - 2022

ŞAHBAZ KARADUMAN N., KARADUMAN Y., Project Supported by Higher Education Institutions, Kenevir Lifi Takviyeli Tekstil Kompozitlerinin Mekanik Özellikleri, 2020 - 2022

KARADUMAN Y., ŞAHBAZ KARADUMAN N., KILIÇ İ., Project Supported by Higher Education Institutions, Kenevir Lifi Katkılı Polimer Kompozitlerin Üretilmesi ve Endüstriyel Kullanım Alanlarının Belirlenmesi, 2020 - 2022

Bilişik A., Sapancı E., Şahbaz Karaduman N., Güler G., Güngör S., Project Supported by Other Official Institutions, ROKETSAN/ERCİYES ÜNİVERSİTESİ - RS ERCİYES DSM 76301 14 01 N R Çok eksenli dikişli kompozit yapıların mekanik ve balistik performansı, 2014 - 2015

## Metrics

Publication: 47

Citation (WoS): 110

Citation (Scopus): 170

H-Index (WoS): 9

H-Index (Scopus): 7

## Scholarships

YÖK Dil Bursu (Amerika Birleşik Devletleri), YOK, 2018 - 2019

## Awards

Bilişik A., Şahbaz Karaduman N., Sapancı E., "Flexural characterization of 3D prepreg/stitched carbon/epoxy/multiwalled carbon nanotube preforms and composites".-, Cilt: 53, No: 5, Sf: 563-577, 2019., Tübitak, December 2019

Bilişik A., Şahbaz Karaduman N., Sapancı E., "Tensile properties of nanoprepreg/nanostitched 3D carbon/epoxy MWCNTs composites".-, Cilt: 128, No: ?, Sf: 11-23, 2019., Tübitak, December 2019

Bilişik A., Şahbaz Karaduman N., Sapancı E., "In-plane shear of nanoprepreg/nanostitched three-dimensional

carbon/epoxy multiwalled carbon nanotubes composites".-, Cilt: 53, No: 24, Sf: 3413-3431, 2019., Tübitak, December 2019

Şahbaz Karaduman N, Bilişik A, "Three-dimensional fully interlaced woven preforms for composites".-, Cilt: 83, No: 19, Sf: 2060-2084, 2013., Tübitak, December 2013

Bilişik A., Şahbaz Karaduman N., Structure-unit cell-based approach on three-dimensional representative braided preforms from four-step braiding: Experimental determination of effects of structure-process parameters on predetermined yarn path".-, Cilt: 82, No: 3, Sf: 220-241, 2012., Tübitak, February 2012