

Lect. PhD ERCÜMENT YILMAZ

Personal Information

Office Phone: [+90 462 377 7581](tel:+904623777581)

Email: ercument@ktu.edu.tr

Other Email: ercument@ercumentyilmaz.com

Web: <http://www.ercumentyilmaz.com.tr>

Address: Karadeniz Teknik Üniversitesi Trabzon Meslek Yüksekokulu Kat:3 Oda No:31 Akçaabat/TRABZON

Biography

Ercüment YILMAZ received his **M.Sc.** and **Ph.D.** degrees from **Computer Engineering Department** at **Karadeniz Technical University** in June'18. In January'02, he joined **Karadeniz Technical University Department of Informatics** as academic staff member. As a senior lecturer he currently teaches lectures on **Information Technologies**.

He was a **post-doctoral fellow** at **LISITE (Laboratoire D'Informatique, Signal, Image, Telecommunication et Electronique) de L'ISEP, ISEP, Paris/France** between dates September 2019 - September 2020.

During his graduate studies, he developed algorithms for segmentation and classification of dental apical lesions on 3D images obtained via cone beam computed tomography devices.

His current research includes the development of noise reduction, semiautomatic segmentation and classification algorithms using **deep learning methods** to increase non-invasive diagnosis of different lesion types (skin lesions, dental lesions and gastrointestinal lesions) detected in medical images (**dermoscopy, 3D CBCT and gastroscopy** images)

Ercüment Yılmaz is also the founder of **Yılmaz Bilişim**, which is located in **Trabzon Technology Development Zone**. **Yılmaz Bilişim** is a R & D company that has been established with the aim of developing "**Road Traffic Simulation Software**" product.

Education Information

Post Doctorate, Institut Supérieur d'Electronique du Paris, Laboratoire D'Informatique, Signal, Image, Télécommunication Et Électronique, Signal, Image And Telecommunications, France 2019 - 2020

Doctorate, Karadeniz Technical University, -, Bilgisayar Mühendisliği, Turkey 2006 - 2018

Postgraduate, Karadeniz Technical University, -, Bilgisayar Mühendisliği, Turkey 2002 - 2006

Undergraduate, Karadeniz Technical University, Fen Edebiyat Fakültesi, İstatistik Ve Bilgisayar Bilimleri Bölümü, Turkey 1997 - 2001

Foreign Languages

English, C1 Advanced

Certificates, Courses and Trainings

Education Management and Planning, Erasmus Personel Eğitim Alma Hareketliliği, Institut Supérieur d'Electronique du Paris (ISEP), 2019

Other, Üniversite Sanayi İşbirliği Uzmanı Rehberlik Eğitimi, Gazi Teknoloji Transfer Ofisi, 2015

Education Management and Planning, Fen Bilimlerinde Araştırma Projesi Hazırlama Eğitimi, TÜBİTAK & Karadeniz Teknik Üniversitesi, 2014

Dissertations

Doctorate, Periapikal Kist ve Keratokistik Odontojenik Tümör Lezyonlarının Yarı Otomatik Bölütlenmesi ve Sınıflandırılması, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, 2018

Postgraduate, Karayolu Trafik Simülasyonu, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, 2006

Research Areas

Computer Sciences, Database and Data Structures, Database Systems, Artificial Intelligence, Computer Learning and Pattern Recognition, Software, Software Engineering, Biomedical Engineering, Biomedical Image Processing, Biomedical Image Processing, Civil Engineering, Transportation Engineering, Traffic Engineering, Statistics, Statistical Analysis and Applications, Natural Sciences, Engineering and Technology

Academic Titles / Tasks

Lecturer PhD, Karadeniz Technical University, Trabzon Meslek Yüksekokulu, Bilgisayar Teknolojileri, 2018 - Continues
Lecturer, Karadeniz Technical University, Rektörlük, Enformatik Bölümü, 2002 - 2018

Academic and Administrative Experience

Assistant Director of Vocational School, Karadeniz Technical University, Trabzon Meslek Yüksekokulu, 2020 - Continues
Karadeniz Technical University, Trabzon Meslek Yüksekokulu, Bilgisayar Teknolojileri Bölümü, 2019 - Continues
Karadeniz Technical University, Sürekli Eğitim Merkezi, 2009 - 2012
Karadeniz Technical University, Enformatik Bölümü, 2009 - 2012
Karadeniz Technical University, Enformatik Bölümü, Eğitim Komisyonu, 2006 - 2008

Courses

Object Oriented Programming - 2, Associate Degree, 2020 - 2021
Visual Programming - 3, Associate Degree, 2020 - 2021
Object Oriented Programming - 1, Associate Degree, 2020 - 2021
Visual Programming - 2, Associate Degree, 2020 - 2021
Veritabanı - 2, Associate Degree, 2018 - 2019
Web Tasarımının Temelleri, Associate Degree, 2017 - 2018
Veri Tabanı - 1, Associate Degree, 2017 - 2018
Mesleki İngilizce, Associate Degree, 2018 - 2019
Ağ Temelleri, Associate Degree, 2018 - 2019
İnternet Programcılığı 1, Associate Degree, 2017 - 2018
Grafik Animasyon 1, Associate Degree, 2017 - 2018
Temel Bilgi Teknolojileri Kullanımı, Undergraduate, 2013 - 2014

Temel Bilgisayar - 2, Undergraduate, 2012 - 2013
Bilgisayar Uygulamaları, Undergraduate, 2012 - 2013
Veri Tabanı - 2 (UZEM), Associate Degree, 2012 - 2013
Veri Tabanı - 1 (UZEM), Associate Degree, 2012 - 2013
Temel Bilgisayar, Undergraduate, 2008 - 2009
Veri Yapıları, Undergraduate, 2006 - 2007
Veri Tabanı Yönetim Sistemleri, Undergraduate, 2006 - 2007

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Statistical and Machine Learning Techniques in Human Microbiome Studies: Contemporary Challenges and Solutions**
Moreno-Indias I, Lahti L., Nedyalkova M., Elbere I., Roshchupkin G., Adilovic M., AYDEMİR Ö., Bakir-Gungor B., Santa Pau E. C., D'Elia D., et al.
FRONTIERS IN MICROBIOLOGY, vol.12, 2021 (Journal Indexed in SCI)
- II. **Computer-aided diagnosis of periapical cyst and keratocystic odontogenic tumor on cone beam computed tomography**
Yilmaz E., Kayikcioglu T., Kayipmaz S.
COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE, vol.146, pp.91-100, 2017 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **SARS-CoV-2 Ana Proteaz Enzimine Yönelik Antiviral Bileşiklerin Bilgisayar Destekli İlaç Tasarımı Yöntemleri ile Değerlendirilmesi**
TATAR YILMAZ G., YILMAZ E.
European Journal of Science and Technology, no.32, pp.1043-1047, 2021 (Other Refereed National Journals)
- II. **A modified version of GoogLeNet for melanoma diagnosis**
YILMAZ E., TROCAN M.
Journal of Information and Telecommunication, vol.5, pp.1-11, 2021 (Journal Indexed in ESCI)

Books & Book Chapters

- I. **Melanoma Detection Using Deep Learning**
FAVOLE F., TROCAN M., YILMAZ E.
in: Computational Collective Intelligence12th International Conference, ICCCI 2020, Da Nang, Vietnam, November 30 – December 3, 2020, Proceedings, Ngoc Thanh Nguyen, Bao Hung Hoang, Cong Phap Huynh, Dosam Hwang, Bogdan Trawiński, Gottfried Vossen, Editor, Springer, Cham, pp.816-824, 2020
- II. **Benign and Malignant Skin Lesion Classification Comparison for Three Deep-Learning Architectures**
YILMAZ E., TROCAN M.
in: Intelligent Information and Database Systems12th Asian Conference, ACIIDS 2020, Phuket, Thailand, March 23–26, 2020, Proceedings, Part I, Ngoc Thanh Nguyen, Kietikul Jearanaitanakij, Ali Selamat, Bogdan Trawiński, Suphamit Chittayasothorn, Editor, Springer, Cham, pp.514-524, 2020
- III. **Microsoft Excel 2010**
YILMAZ E., SÖNMEZ A., SÖNMEZ S., KAYA Y., BİNGÖL Ö., GÜNER A., KOCABAŞ A., AKAY A., GÜRCAN F., DOĞU A. H.
in: Temel Bilgi Teknolojileri, BİNGÖL Özkan, Editor, Derya Kitabevi, Trabzon, pp.158-192, 2011
- IV. **Bölüm 3 Word**
Yilmaz E., Doğu A. H., Kaya Y., Gürcan F., Sönmez S., Oğuz Y., Bingöl Ö., Kocabaş A., Akay A., Güner A., et al.
in: Temel Bilgisayar, DOĞU Ali Haydar, Editor, Derya Kitabevi, Trabzon, pp.131-159, 2007

V. **Grafikler**

Yılmaz E.

in: Uygulamalı İleri Excel 2003, MISIR Nejat, Editor, Derya Kitabevi, Trabzon, pp.206-251, 2007

VI. **Microsoft Word**

YILMAZ E., DOĞU A. H.

in: TEMEL BİLGİSAYAR, Doğu A.H., Editor, Şahinkaya Matbaacılık, İstanbul, pp.102-119, 2005

Refereed Congress / Symposium Publications in Proceedings

- I. **Melanoma Detection Using Deep Learning**
Favole F., Trocan M., Yılmaz E.
12th International Conference on Computational Collective Intelligence, Dha-Nang, Vietnam, 30 November - 03 December 2020, vol.12496, pp.816-824
- II. **Benign and Malignant Skin Lesion Classification Comparison for Three Deep-Learning Architectures**
Yılmaz E., Trocan M.
12th Asian Conference on Intelligent Information and Database Systems, ACIIDS 2020, Phuket, Thailand, 23 - 26 March 2020, pp.514-524
- III. **Semi-Automatic Segmentation of Apical Lesions in Cone Beam Computed Tomography Images**
YILMAZ E., KAYIKÇIOĞLU T., KAYIPMAZ S.
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- IV. **Noise Removal of CBCT Images Using an Adaptive Anisotropic Diffusion Filter**
YILMAZ E., KAYIKÇIOĞLU T., KAYIPMAZ S.
40th International Conference on Telecommunications and Signal Processing (TSP), Barcelona, Spain, 5 - 07 July 2017, pp.650-653
- V. **Experimental Comparison of Different Noise Reduction Techniques on Cone Beam Computed Tomography Images**
YILMAZ E., KAYIKÇIOĞLU T., KAYIPMAZ S.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.2086-2089
- VI. **Konik Işınlı Bilgisayarlı Tomografi Görüntülerindeki Çene Patolojilerinin Rasgele Yürüyüşle Belirlenmesi**
YILMAZ E., KAYIKÇIOĞLU T., KAYIPMAZ S., SEZGİN Ö. S.
ULUSLARARASI 8. İSTATİSTİK KONGRESİ, Antalya, Turkey, 27 - 30 October 2013, pp.272-273
- VII. **Temel Bilişim Eğitiminin Yükseköğretimdeki Yeri: 2005-2012 Analizi**
YILMAZ E., DOĞU A. H.
AKADEMİK BİLİŞİM 2012, Uşak, Turkey, 1 - 03 February 2012, pp.65-70
- VIII. **Üniversitelerde Temel Bilişim Eğitimi Nereye Gidiyor?: 2005-2011 Analizi**
YILMAZ E., DOĞU A. H.
AKADEMİK BİLİŞİM 2011, Malatya, Turkey, 2 - 04 February 2011, pp.659-664
- IX. **Orta Öğretimden Üniversiteye Gelen Öğrencilerin Temel Bilgisayar Bilgilerinin il ve Bölge Bazında incelenmesi: Karadeniz Teknik Üniversitesi Uygulaması**
DOĞU A. H. , YILMAZ E.
AKADEMİK BİLİŞİM 2010, Muğla, Turkey, 10 - 12 February 2010, vol.1, pp.91-96
- X. **Orta Ölçekli Trafik Ağlarının Geliştirilen Bir Yazılım İle Simülasyonu ve Analizi**
YILMAZ E., KÖSE C.
Akademik Bilişim 2008, Çanakkale, Turkey, 30 January - 01 February 2008, pp.411-418
- XI. **Dört Kavşağa Sahip Bir Karayolu Bölümünün Bilgisayar Ortamında Simülasyonu**
YILMAZ E., KÖSE C.
12. ELEKTRİK, ELEKTRONİK, BİLGİSAYAR, BİYOMEDİKAL MÜHENDİSLİĞİ ULUSAL KONGRESİ ve FUARI, Eskişehir, Turkey, 14 - 18 November 2007, pp.299-300

XII. Akademisyen Ders Sayfaları Hazırlama Modülü

YILMAZ E.

AKADEMİK BİLİŞİM 2005, Gaziantep, Turkey, 2 - 04 February 2005, pp.144

XIII. Kişisel Sayfa ve Ders Sayfası Hazırlama Sistemi

YILMAZ E., Özyurt T., Kuş R.

AKADEMİK BİLİŞİM 2004, Trabzon, Turkey, 11 - 13 February 2004, pp.22

Supported Projects

YILMAZ E., Project Supported by Other Private Institutions, Motorlu Araç Arıza Tespit Sistemi (MATS), 2019 - Continues

Yılmaz E., Trocan M., TUBITAK Project, Detection and Classification of Skin Lesions Observed in Dermoscopy Images Using Deep Learning Models, 2019 - 2020

ŞEVİK U., BERBER T., TÜRKİYILMAZ S., YILMAZ E., KARAKULLUKÇU E., YEGİNOĞLU Y., Project Supported by Higher Education Institutions, Yanık Hastalarının 3-Boyutlu Modellenmesi, 2016 - 2020

BELDÜZ A. O. , HACISALİHOĞLU H., SAĞLAM S., YILMAZ E., YILDIZ O., Project Supported by Higher Education Institutions, Karadeniz Teknik Üniversitesinde Girişimcilik ve Yenilikçilik Potansiyeli ile Üniversite-Sanayi İşbirliği Kapasitesinin Arttırılması İmkanlarının Araştırılması, 2016 - 2017

BERBER T., ŞEVİK U., KÖSE C., YILMAZ E., TUBITAK Project, Şehir İçi ve Şehirlerarası Trafik Şebekelerinin Bilgisayar Ortamında Modellenmesi, Simülasyonu ve Analizini Gerçekleştirecek Yerli Bir Yazılımın Üretilmesi, 2014 - 2015

DOĞU A. H. , YILMAZ E., EU Framework Program Project, AB YOLUNDAKİ TÜRKİYE'YE BİLİŞİM GENÇLİĞİNİN KATKISI, 2010 - 2011

Patent

Yılmaz E., Berber T., Şevik U., Mechanism to Automatically Obtain Road Facilities and Connections from a Map Provider, Patent, CHAPTER B Implementation of Operations; Transport, The Invention Registration Number: TR 2015 07427 B , Initial Registration, 2017

Yılmaz E., Şevik U., Berber T., Synthetic Population Synthesis Method, Patent, CHAPTER B Implementation of Operations; Transport, The Invention Registration Number: TR 2015 07903 B , Initial Registration, 2017

Scientific Refereeing

PHYSICS IN MEDICINE AND BIOLOGY, SCI Journal, September 2021

COMPUTERS IN BIOLOGY AND MEDICINE, SCI Journal, June 2020

IEEE ACCESS, SCI Journal, May 2020

Signal, Image and Video Processing, SCI Journal, April 2020

Biomedical Physics & Engineering Express, SCI Journal, November 2019

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, SCI Journal, January 2017

Scientific Research / Working Group Memberships

Ca20124, Maximising Impact Of Multidisciplinary Research In Early Diagnosis Of Neonatal Brain Injury, The European Cooperation in Science and Technology (COST), Belgium, <https://www.cost.eu/actions/CA20124/>, 2022 - Continues

Ca18131 - Statistical And Machine Learning Techniques In Human Microbiome Studies, The European Cooperation in Science and Technology (COST), Belgium, <https://www.cost.eu/actions/CA18131>, 2020 - Continues

Ca17137 - A Network For Gravitational Waves, Geophysics And Machine Learning, The European Cooperation in Science and Technology (COST), Belgium, <https://www.cost.eu/actions/CA17137>, 2020 - Continues

Ca18106 - The Neural Architecture Of Consciousness, The European Cooperation in Science and Technology (COST),

Belgium, <https://www.cost.eu/actions/CA18106>, 2020 - Continues

ENFORMATİK ÇALIŞTAYI, Türkiye Bilişim Vakfı, Turkey, <http://enformatikcalistayi.ktu.edu.tr>, 2008 - 2011

Edit Congress and Symposium Activities

Prof.Dr. Mustafa Karaman Biyomedikal Görüntü İşleme Çalıştayı, Invited Speaker, İstanbul, Turkey, 2018

TÜRKİYE İNOVASYON HAFTASI 2016, Attendee, İstanbul, Turkey, 2016

4. TEKNOLOJİ GELİŞTİRME BÖLGELERİ ZİRVESİ, Attendee, Ankara, Turkey, 2016

TÜRKİYE İNOVASYON HAFTASI 2015, Attendee, İstanbul, Turkey, 2015

3. TEKNOLOJİ GELİŞTİRME BÖLGELERİ ZİRVESİ, Attendee, ANKARA, Turkey, 2015

4. TET AR-GE PROJE PAZARI, Attendee, İstanbul, Turkey, 2015

TECHANKARA PROJE PAZARI, Attendee, Ankara, Turkey, 2014

2. TEKNOLOJİ GELİŞTİRME BÖLGELERİ ZİRVESİ, Attendee, Ankara, Turkey, 2014

SIGNAL PROCESSING AND COMMUNICATIONS APPLICATIONS CONFERENCE (SIU), 2014 22ND, Attendee, Trabzon, Turkey, 2014

ULUSLARARASI 8. İSTATİSTİK KONGRESİ, Attendee, Antalya, Turkey, 2013

AKADEMİK BİLİŞİM 2012, Attendee, Uşak, Turkey, 2012

BİLİŞİM KURULTAYI, Attendee, Ankara, Turkey, 2011

AKADEMİK BİLİŞİM 2011, Attendee, Malatya, Turkey, 2011

AKADEMİK BİLİŞİM 2010, Attendee, Muğla, Turkey, 2010

AKADEMİK BİLİŞİM 2008, Attendee, Çanakkale, Turkey, 2008

12. ELEKTRİK, ELEKTRONİK, BİLGİSAYAR, BİYOMEDİKAL MÜHENDİSLİĞİ ULUSAL KONGRESİ ve FUARI, Attendee, Eskişehir, Turkey, 2007

AKADEMİK BİLİŞİM 2007, Attendee, Kütahya, Turkey, 2007

AKADEMİK BİLİŞİM 2005, Attendee, Gaziantep, Turkey, 2005

AKADEMİK BİLİŞİM 2004, Attendee, Trabzon, Turkey, 2004

AKADEMİK BİLİŞİM 2003, Attendee, Adana, Turkey, 2003

Invited Talks

Artificial Intelligence Applications in Dentistry, Seminar, Alanya Alaaddin Keykubat Üniversitesi, Turkey, June 2020

Semi-automatic Segmentation and Classification of Dental Periapical Lesions, Workshop, İstanbul Teknik Üniversitesi, Turkey, September 2018

Scholarships

2219-Yurt Dışı Doktora Sonrası Araştırma Bursu, TÜBİTAK, 2019 - 2020

Visual Activities

YILMAZ E., Radio Program, 2015 - 2015

YILMAZ E., TV Show, 2005 - 2005

Non Academic Experience

Business Establishment Private, Yılmaz Bilişim R&D Consultancy Software Engineering and Services Trade Limited Company