

Prof. Ender Mete Ekşiođlu

Personal Information

Email: ekxioglue@itu.edu.tr

Web: <http://web.itu.edu.tr/ekxioglue/>

Education Information

Doctorate, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Elektronik Ve Haberleşme Mühendisliği Anabilim Dalı, Turkey 1999 - 2005

Postgraduate, University Of Michigan, Elektrik-Elektronik Mühendisliği, United States Of America 1997 - 1999

Undergraduate, University Of Michigan, Elektrik-Elektronik Mühendisliği, United States Of America 1994 - 1997

Foreign Languages

German

English

Dissertations

Doctorate, Voltterra Süzgeci gösterilimi, tanımlaması ve gerçeklemesi için yeni yöntemler, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Elektronik Ve Haberleşme Mühendisliği Anabilim Dalı, 2005

Research Areas

Information Systems, Communication and Control Engineering, Signal Processing, Image and Video Processing, Signal Processing Theory and Methods, Artificial Intelligence, Computer Learning and Pattern Recognition, Computer Learning, Neural Networks, Electrical and Electronics Engineering, Engineering and Technology

Academic Titles / Tasks

Professor, Istanbul Technical University, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, 2019 - Continues
Associate Professor, Istanbul Technical University, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, 2013 - 2019

Assistant Professor, Istanbul Technical University, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, 2005 - 2013

Research Assistant, Istanbul Technical University, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, 1999 - 2005

Advising Theses

Ekşiođlu E. M. , Sparsity based pansharpener and a new pansharpener method using a guiding image, Postgraduate, R.JI(Student), 2019

Ekşioğlu E. M. , Seyreklik ve sözlük öğrenme yaklaşımlarının sınıflandırma ve yüz tanımaya uygulanması, Postgraduate, B.Azizoğlu(Student), 2017

Ekşioğlu E. M. , Seyrek işaret işlemede sınıflandırma uygulamaları ve çekirdek tabanlı yaklaşımlar, Postgraduate, A.YEŞİLOĞLU(Student), 2015

Ekşioğlu E. M. , Örneklem tabanlı gürbüz konuşma tanıma, Postgraduate, F.AKTÜRK(Student), 2015

Ekşioğlu E. M. , Analiz ve sentez seyreklik için sözlük öğrenme algoritmaları ve görüntü işlemede uygulamaları, Postgraduate, Ö.BAYIR(Student), 2015

Ekşioğlu E. M. , Seyreklik temelli sınıflandırmanın hiperspektral görüntülerde uygulamaları, Postgraduate, H.ÇAĞLAR(Student), 2015

Ekşioğlu E. M. , Faz-MIMO radar, Postgraduate, Ç.GÜRBÜZ(Student), 2014

Ekşioğlu E. M. , İşaretlerin seyrek gösterilimi için sözlük tasarımı, Postgraduate, E.YAVUZ(Student), 2011

Ekşioğlu E. M. , Gözü kapalı kaynak ayrıştırma seyreklik tabanlı yöntemler ve DUET algoritması, Postgraduate, M.Elmas(Student), 2010

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

- I. **On the fly image denoising using patch ordering**
Colak O., Ekşioğlu E. M.
EXPERT SYSTEMS WITH APPLICATIONS, vol.190, 2022 (Journal Indexed in SCI)
- II. **MR image reconstruction using densely connected residual convolutional networks**
Aghabiglou A., Ekşioğlu E. M.
COMPUTERS IN BIOLOGY AND MEDICINE, vol.139, 2021 (Journal Indexed in SCI)
- III. **Projection-Based cascaded U-Net model for MR image reconstruction**
Aghabiglou A., Ekşioğlu E. M.
Computer Methods and Programs in Biomedicine, vol.207, 2021 (Journal Indexed in SCI Expanded)
- IV. **Identification of smart jammers: Learning-based approaches using wavelet preprocessing**
Topal O. A. , Gecgel S., Ekşioğlu E. M. , Karabulut Kurt G. Z.
PHYSICAL COMMUNICATION, vol.39, 2020 (Journal Indexed in SCI)
- V. **Image denoising using patch ordering and 3D transformation of patches**
Colak O., Ekşioğlu E. M.
IET Image Processing, vol.13, pp.2636-2646, 2019 (Journal Indexed in SCI)
- VI. **Denoising AMP for MRI Reconstruction: BM3D-AMP-MRI**
Ekşioğlu E. M. , Tanc A. K.
SIAM JOURNAL ON IMAGING SCIENCES, vol.11, no.3, pp.2090-2109, 2018 (Journal Indexed in SCI)
- VII. **Decoupled Algorithm for MRI Reconstruction Using Nonlocal Block Matching Model: BM3D-MRI**
Ekşioğlu E. M.
JOURNAL OF MATHEMATICAL IMAGING AND VISION, vol.56, no.3, pp.430-440, 2016 (Journal Indexed in SCI)
- VIII. **MRI reconstruction with joint global regularization and transform learning**
Tanc A. K. , Ekşioğlu E. M.
COMPUTERIZED MEDICAL IMAGING AND GRAPHICS, vol.53, pp.1-8, 2016 (Journal Indexed in SCI)
- IX. **Group sparse RLS algorithms**
Ekşioğlu E. M.
INTERNATIONAL JOURNAL OF ADAPTIVE CONTROL AND SIGNAL PROCESSING, vol.28, no.12, pp.1398-1412, 2014 (Journal Indexed in SCI)
- X. **Online dictionary learning algorithm with periodic updates and its application to image denoising**
Ekşioğlu E. M.
EXPERT SYSTEMS WITH APPLICATIONS, vol.41, no.8, pp.3682-3690, 2014 (Journal Indexed in SCI)
- XI. **K-SVD Meets Transform Learning: Transform K-SVD**
Ekşioğlu E. M. , BAYIR O.
IEEE SIGNAL PROCESSING LETTERS, vol.21, no.3, pp.347-351, 2014 (Journal Indexed in SCI)

- XII. **Reliability analysis of the complex mode indicator function and Hilbert Transform techniques for operational modal analysis**
Bakir P., EKŞIOĞLU E. M. , ALKAN S.
EXPERT SYSTEMS WITH APPLICATIONS, vol.39, no.18, pp.13289-13294, 2012 (Journal Indexed in SCI)
- XIII. **System Identification of a Reinforced Concrete Building Using the Complex Mode Indicator Function and the Hilbert Transform Techniques**
Bakir P., Ekşioğlu E. M. , ALKAN S.
JOURNAL OF TESTING AND EVALUATION, vol.40, no.3, pp.427-434, 2012 (Journal Indexed in SCI)
- XIV. **RLS Algorithm With Convex Regularization**
Eksioglu E. M. , TANC A. K.
IEEE SIGNAL PROCESSING LETTERS, vol.18, no.8, pp.470-473, 2011 (Journal Indexed in SCI)
- XV. **Sparsity regularised recursive least squares adaptive filtering**
Eksioglu E. M.
IET SIGNAL PROCESSING, vol.5, no.5, pp.480-487, 2011 (Journal Indexed in SCI)
- XVI. **A comparative study on the subspace based system identification techniques applied on civil engineering structures**
Bakir P. G. , Alkan S., Ekşioğlu E. M.
SMART STRUCTURES AND SYSTEMS, vol.7, no.2, pp.153-167, 2011 (Journal Indexed in SCI)
- XVII. **Nonlinear system identification using deterministic multilevel sequences**
Kayran A. H. , Eksioglu E. M.
CIRCUITS SYSTEMS AND SIGNAL PROCESSING, vol.24, no.2, pp.151-181, 2005 (Journal Indexed in SCI)
- XVIII. **Volterra kernel estimation for nonlinear communication channels using deterministic sequences**
Eksioglu E. M. , KAYRAN A. H.
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, vol.59, no.2, pp.118-127, 2005 (Journal Indexed in SCI)
- XIX. **2D FIR Wiener filter realisation using orthogonal lattice structures**
Kayran A. H. , Eksioglu E. M.
ELECTRONICS LETTERS, vol.36, no.12, pp.1078-1079, 2000 (Journal Indexed in SCI)

Books & Book Chapters

- I. **Bilgisayar Uygulamalarıyla Sayısal İşaret İşleme**
Kayran A. H. , Ekşioğlu E. M.
Birsen Yayınevi, İstanbul, 2010

Refereed Congress / Symposium Publications in Proceedings

- I. **Scale Input Adapted Attention for Image Denoising Using a Densely Connected U-Net: SADE-Net**
Acar V., Ekşioğlu E. M.
13th International Conference on Computational Collective Intelligence, ICCCI 2021, Virtual, Online, 29 September - 01 October 2021, vol.12876 LNAI, pp.792-801
- II. **MR Image Reconstruction Based on Densely Connected Residual Generative Adversarial Network-DCR-GAN**
Aghabiglou A., Ekşioğlu E. M.
13th International Conference on Computational Collective Intelligence, ICCCI 2021, Virtual, Online, 29 September - 01 October 2021, vol.1463, pp.679-689
- III. **Deep Learning for Mri Reconstruction Using A Novel Projection Based Cascaded Network**
Kocanaogullari D., Ekşioğlu E. M.
29th IEEE International Workshop on Machine Learning for Signal Processing, MLSP 2019, Pennsylvania, United

States Of America, 13 - 16 October 2019

- IV. **Myelin segmentation in fluorescence microscopy images Floresan mikroskop görüntülerinde miyelin segmentasyonu**
Yetis S. C. , Ekinci D. A. , Cakir E., Ekşioğlu E. M. , AYTEN U. E. , Çapar A., Töreyn B. U. , Kerman B. E.
2019 Medical Technologies Congress, TIPTEKNO 2019, İzmir, Turkey, 3 - 05 October 2019
- V. **Myelin Segmentation in Fluorescence Microscopy Images**
ÇİMEN YETİŞ S., Ekinci D. A. , Cakir E., Ekşioğlu E. M. , AYTEN U. E. , Çapar A., Töreyn B. U. , Kerman B. E.
Medical Technologies Congress (TIPTEKNO), İzmir, Turkey, 3 - 05 October 2019, pp.141-144
- VI. **MRI RECONSTRUCTION WITH ANALYSIS SPARSE REGULARIZATION UNDER IMPULSIVE NOISE**
Tanc A. K. , Ekşioğlu E. M.
24th European Signal Processing Conference (EUSIPCO), Budapest, Hungary, 28 August - 02 September 2016, pp.538-541
- VII. **Classification Applications of Sparse Signal Processing and Kernel Based Methods**
Yesiloglu A., Ekşioğlu E. M.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.1157-1160
- VIII. **Analysis Sparsity Based Single Image Superresolution**
Bayir O., Ekşioğlu E. M.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.977-980
- IX. **TRANSFORM LEARNING MRI WITH GLOBAL WAVELET REGULARIZATION**
Tanc A. K. , Ekşioğlu E. M.
23rd European Signal Processing Conference (EUSIPCO), Nice, France, 31 August - 04 September 2015, pp.1855-1859
- X. **OVERCOMPLETE SPARSIFYING TRANSFORM LEARNING ALGORITHM USING A CONSTRAINED LEAST SQUARES APPROACH**
Ekşioğlu E. M. , BAYIR O.
IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Florence, Italy, 4 - 09 May 2014
- XI. **A CLUSTERING BASED FRAMEWORK FOR DICTIONARY BLOCK STRUCTURE IDENTIFICATION**
Eksioglu E. M.
IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Prague, Czech Republic, 22 - 27 May 2011, pp.4044-4047
- XII. **Generalized 2D Lattice Structure for Causal and Noncausal Modeling of Random Fields**
Kayran A. H. , CAMCIOGLU E., Ekşioğlu E. M. , TANC A. K. , Seker S.
IEEE International Symposium on Circuits and Systems (ISCAS), Rio-De-Janeiro, Brazil, 15 - 18 May 2011, pp.1756-1759
- XIII. **A compressive sensing framework for multirate signal estimation**
Ekşioğliaglu E. M. , Tanc A. K. , Kayran A. H.
10th International Conference on Information Sciences, Signal Processing and their Applications, ISSPA 2010, Kuala-Lumpur, Malaysia, 10 - 13 May 2010, pp.716-719
- XIV. **RLS adaptive filtering with sparsity regularization**
Ekşioğlu E. M.
10th International Conference on Information Sciences, Signal Processing and their Applications, ISSPA 2010, Kuala-Lumpur, Malaysia, 10 - 13 May 2010, pp.550-553
- XV. **Adaptive multirate signal estimation with lattice orthogonalization**
Tanc A. K. , Ekşioğlu E. M. , Kayran A. H.
2009 16th IEEE International Conference on Electronics, Circuits and Systems, ICECS 2009, Yasmine Hammamet, Tunisia, 13 - 16 December 2009, pp.117-119
- XVI. **Lattice-ladder structure for 2D ARMA filters**
Eksioglu E. M. , Kayran A.

30th IEEE International Conference on Acoustics, Speech, and Signal Processing, Pennsylvania, United States Of America, 19 - 23 March 2005, pp.101-104

XVII. Nonlinear system identification using deterministic multilevel sequences

Eksioglu E. M. , Kayran A. H.

14th International Conference on Digital Signal Processing, DSP 2002, Santorini, Hellas, Greece, 1 - 03 July 2002, vol.2, pp.947-950

Supported Projects

Eksioglu E. M. , Çayören M., TUBITAK Project, Meme Kanserinin Tanısı İçin Magnetik-Nanoparçacık Temelli Mikrodalga Görüntüleme Teknolojisinin Geliştirilmesi, 2017 - 2021

Eksioglu E. M. , TUBITAK Project, Yama sıralama ve seyrekleştirici dönüşümlerin görüntü gürültüsü giderme ve MR görüntü geriçatımında kullanımı, 2018 - 2019

Eksioglu E. M. , Project Supported by Higher Education Institutions, Analiz seyrek düzenleme kullanarak dürtüsel gürültü altında MR görüntü geriçatımı, 2016 - 2018

Eksioglu E. M. , Project Supported by Higher Education Institutions, GLOBAL DALGACILIK DÜZENLEMELİ DÖNÜŞÜM ÖĞRENME MRI, 2015 - 2018

Eksioglu E. M. , Project Supported by Higher Education Institutions, Seyreklik Tabanlı Sınıflandırma Algoritmaları ve Uygulamaları, 2014 - 2018

Eksioglu E. M. , Project Supported by Higher Education Institutions, Blok-seyrek İşaretler İçin Sözlük Öğrenme Algoritmaları, 2013 - 2018

Eksioglu E. M. , Project Supported by Higher Education Institutions, Sözlük Blok Yapısının Tanımlanması için Kümeleme Tabanlı algoritmalar, 2011 - 2018

Eksioglu E. M. , Project Supported by Higher Education Institutions, SEYRAKLİK DÜZENLEMELİ RLS UYARLAMALI SÜZGEÇLEME, 2010 - 2018

Eksioglu E. M. , Project Supported by Higher Education Institutions, Seyreklik Tabanlı İşaret İşlemenin Konuşma İşareti İşlemede Uygulamaları, 2013 - 2015

Eksioglu E. M. , Project Supported by Higher Education Institutions, Sözlük Öğrenme Algoritmaları ve Görüntü Gürültüsü Gidermede Uygulamaları, 2013 - 2015

Citations

Total Citations (WOS):217

h-index (WOS):6