Asst. Prof. ERTUĞRUL SAATÇI

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: D-1568-2017

ScopusID: 6602973919

Yoksis Researcher ID: 10488

Biography

Ertugrul SAATCI received the B.S. and M.S. degree from Istanbul University, Istanbul, Turkey, in 1993 and 1996, respectively, and Ph.D. degree from London South Bank University in 2003. He is currently an Assistant Professor at Department of Electrical and Electronics Engineering, Istanbul Kultur University. His major research interests lie in the areas of signal and image processing, biomedical signal processing, biometrics, and cellular neural networks.

Education Information

Doctorate, South Bank University London, Elektrik Mühendisliği, England 1999 - 2003

Postgraduate, Istanbul University, Fen Bilimleri Enstitüsü, Elektronik Mühendisliği (Yl) (Tezli), Turkey 1993 - 1996

Undergraduate, Istanbul University, Mühendislik Fakültesi, Elektronik Mühendisliği Bölümü, Turkey 1989 - 1993

Dissertations

Doctorate, Image Processing Using Cellular Neural Networks, South Bank University London, Elektrik Mühendisliği, 2003

Postgraduate, PC ile çevre birimlerinin seri çıkışla kontrolü, Istanbul University, Fen Bilimleri Enstitüsü, Elektronik Mühendisliği (Yl) (Tezli), 1996

Research Areas

Signal Processing, Image and Video Processing, Signal Processing Theory and Methods

Academic Titles / Tasks

Assistant Professor, Istanbul Kultur University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2004 - Continues

Researcher, London South Bank University, Faculty of Science, Engineering and Built Environment , Electrical Engineering, 1999 - 2002

Research Assistant, Istanbul University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1994 - 2002

Academic and Administrative Experience

Adaptation/Exemption Committee Member, Istanbul Kultur University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2023 - Continues

Curriculum Preparation Committee Member, Istanbul Kultur University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2023 - Continues

Advisor of IEEE Student Branch (STB06301 - Istanbul Kultur Universitesi), Istanbul Kultur University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2021 - Continues

Erasmus Program Department Coordinator, Istanbul Kultur University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2010 - Continues

Erasmus Program Institutional Coordinator, Istanbul Kultur University, Mühendislik Fakültesi, 2010 - Continues

Summer School Coordinator of Engineering Faculty, Istanbul Kultur University, Mühendislik Fakültesi, 2007 - Continues

Deputy Head of Department, Istanbul Kultur University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2005 - 2010

Courses

LOGIC DESIGN, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022

LOGIC CIRCUITS LABORATORY, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022

SAYISAL GÖRÜNTÜ İŞLEME, Postgraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

INTRODUCTION TO TELECOMMUNICATION, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

TELECOMMUNICATION LABORATORY, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

DIGITAL DESIGN I, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

SIGNALS AND SYSTEMS, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

GÖRÜNTÜ İŞLEME, Postgraduate, 2020 - 2021, 2017 - 2018, 2016 - 2017, 2004 - 2005

INTRODUCTION TO IMAGE PROCESSING, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014

Advising Theses

Saatçi E., Yönlü Quasi-Yagi Mikroşerit Antenler ile Bluetooth RF İşaretlerinin APPR Algoritması Kullanarak Güç ve Doa Analizi, Postgraduate, G.SERT(Student), Continues

ERTUĞRUL S., Spor motivasyonunu artırmak için sanal gerçeklik tabanlı egzersiz bisikleti platformu, Postgraduate, M.ALİ(Student), 2022

ERTUĞRUL S., Hücresel sinir ağları ile parmak izi tanıma, Postgraduate, T.ÇELİK(Student), 2013

Saatçi E., A continuous speech recognition system for Turkish language based on triphone model, Postgraduate, F.PATLAR(Student), 2009

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Determination of Respiratory Parameters by Means of Hurst Exponents of the Respiratory Sounds and Stochastic Processing Methods**
Saatçı E., Saatçı E.
IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING, vol.68, no.12, pp.3582-3592, 2021 (SCI-Expanded)

II. **State-space analysis of fractional-order respiratory system models**

SAATÇI E., SAATÇI E.

BIOMEDICAL SIGNAL PROCESSING AND CONTROL, vol.57, 2020 (SCI-Expanded)

III. **Period Determination in Cyclo-Stationary Signals by Autocorrelation and Ramanujan Subspaces**

Saatçı E., Saatçı E.

IEEE SIGNAL PROCESSING LETTERS, vol.27, pp.266-270, 2020 (SCI-Expanded)

IV. **Analysis of linear lung models based on state-space models**

SAATÇI E., SAATÇI E., Akan A.

COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE, vol.183, 2020 (SCI-Expanded)

V. **Sloshing Displacement Measurements based on Morphological Image Analysis**

SAATÇI E., YAZICI G.

ACTA PHYSICA POLONICA A, vol.135, no.5, pp.949-954, 2019 (SCI-Expanded)

VI. **Determination of the minimum sampling frequency in bandpass sampling by geometric approach and geometric programming**

SAATÇI E., SAATÇI E.

SIGNAL IMAGE AND VIDEO PROCESSING, vol.12, no.7, pp.1319-1327, 2018 (SCI-Expanded)

VII. **Disturbance in long distance gamma coherence in bipolar disorder**

Ozerdem A., GÜNTEKİN B., SAATÇI E., Tunca Z., Basar E.

PROGRESS IN NEURO-PSYCHOPHARMACOLOGY & BIOLOGICAL PSYCHIATRY, vol.34, no.6, pp.861-865, 2010 (SCI-Expanded)

VIII. **Decrease of evoked delta, theta and alpha coherences in Alzheimer patients during a visual oddball paradigm**

GÜNTEKİN B., SAATÇI E., Yener G.

BRAIN RESEARCH, vol.1235, pp.109-116, 2008 (SCI-Expanded)

Articles Published in Other Journals

I. **Multifractal Behaviour of Respiratory Signals**

SAATÇI E., SAATÇI E.

ELECTRICA, vol.20, no.2, pp.182-188, 2020 (ESCI)

II. **A CNN BASED ROTATION INVARIANT FINGERPRINT RECOGNITION SYSTEM**

Mayadagli T. C., SAATÇI E., EDİZKAN R.

ISTANBUL UNIVERSITY-JOURNAL OF ELECTRICAL AND ELECTRONICS ENGINEERING, vol.17, no.2, pp.3471-3479, 2017 (ESCI)

III. **FIngerprint Image Enhancement Using Cnn Filtering Techniques**

SAATÇI E., Tavsanoglu V.

International Journal of Neural Systems, vol.13, no.6, pp.453-460, 2003 (Scopus)

IV. **Broadband Jammer Excision in Spread Spectrum Communication Systems Using Time Frequency Masking**

AKAN A., SAATÇI E.

ISTANBUL UNIVERSITY - JOURNAL OF ELECTRICAL AND ELECTRONICS ENGINEERING, vol.1, no.1, pp.74-79, 2001 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. **Multifractality Analysis of Respiratory Signals**

SAATÇI E., SAATÇI E.

28th Signal Processing and Communications Applications Conference (SIU), ELECTR NETWORK, 5 - 07 October 2020

II. **State-Space Analysis of the Linear RespiratorySystem Models**

SAATÇI E., SAATÇI E., AKAN A.

2019 27th Signal Processing and Communication Applications Conference (SIU-2019), Sivas, Turkey, 24 - 26 April 2019, vol.1, pp.1-4

III. **Cyclostationary Analysis of Respiratory Signals with Application of Rate Determination**

SAATÇI E., SAATÇI E., Akan A.

IUPESM World Congress on Medical Physics and Biomedical Engineering, Prague, Czech Republic, 3 - 08 June 2018, pp.265-269

IV. **Döngüsel Durağan Sinyallerde Ramanujan Altuzayları Aracılığıyla Çoklu Periyot Tespiti**

SAATÇI E., SAATÇI E.

26th IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Turkey, 2 - 05 May 2018

V. **Multiple Period Determinaton in Cyclo-Stationary Signals by means of Ramanujan Subspaces**

SAATÇI E., SAATÇI E.

26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018

VI. **Çok Bantlı Sinyallerin Band Geçiren Örneklenmesine Geometrik Yaklaşım**

SAATÇI E., SAATÇI E., AKAN A.

25th IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Antalya, Turkey, 15 - 18 May 2017, vol.2017, pp.1-4

VII. **Bandpass Sampling of Multiband Signals by using Geometric Approach**

SAATÇI E., SAATÇI E., Akan A.

25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017

VIII. **Long-range evoked gamma coherence in acute mania before and after treatment: a sign for disturbed neural network connectivity**

Ozerdem A., GÜNTEKİN B., SAATÇI E., Basar E.

8th International Conference on Bipolar Disorder, Pennsylvania, United States Of America, 25 - 27 June 2009, pp.67-68

IX. **Decreased Evoked Right Fronto-Temporal Gamma Coherence in Acute Mania Improves After Valproate Monotherapy**

Ozerdem A., GÜNTEKİN B., SAATÇI E., Basar E.

64th Annual Convention of the Society-of-Biological-Psychiatry, Vancouver, Canada, 14 - 16 May 2009

X. **Evoked coherence in Alzheimer disease**

GÜNTEKİN B., SAATÇI E., Yener G., Basar E.

14th World Congress of Psychophysiology the Olympics of the Brain, St Petersburg, Russia, 8 - 13 September 2008, pp.308

XI. **Decrease of event related theta coherence at left frontal-parietal connection in Alzheimer patients**

GÜNTEKİN B., Yener G., SAATÇI E., Basar E.

63rd Annual Convention of the Society-of-Biological-Psychiatry, Washington, Kiribati, 01 January 2008

XII. **An FPGA implementation of 2-D CNN Gabor-type filter**

SAATÇI E., CESUR E., Tavsanoglu V., Kale I.

18th European Conference on Circuit Theory Design, Sevilla, Spain, 26 - 30 August 2007, pp.280-281

XIII. **Fingerprint image enhancement using CNN Gabor-Type filters**

SAATÇI E., TAVŞANOĞLU A. V.

Proceedings of the 2002 7th IEEE International Workshop on Cellular Neural Networks and Their Applications, Frankfurt, Germany, Germany, 22 - 24 July 2002, pp.377-382

XIV. **On the optimal choice of integration time-step for raster simulation of a CNN for gray level image processing**

SAATÇI E., TAVŞANOĞLU A. V.

2002 IEEE International Symposium on Circuits and Systems. Proceedings (Cat. No.02CH37353), Phoenix-Scottsdale, AZ, USA, United States Of America, 26 - 29 May 2002, pp.625-628

XV. **Multiscale handwritten character recognition using CNN image filters**

SAATÇI E., TAVŞANOĞLU A. V.

Proceedings of the 2002 International Joint Conference on Neural Networks. IJCNN'xx02 (Cat. No.02CH37290), Honolulu, HI, USA, United States Of America, 12 - 17 May 2002, pp.2044-2048

XVI. **Handwritten Character Recognition Using CNN Gabor Type Filters**
SAATÇI E., TAVŞANOĞLU A. V.
15th European Conference on Circuit Theory and Design - ECCTD'01, Espoo, Finland, 28 - 31 August 2001, pp.53-56

XVII. **Feature extraction for character recognition using Gabor type filters implemented by cellular neural networks**
TAVŞANOĞLU A. V., SAATÇI E.
Proceedings of the 2000 6th IEEE International Workshop on Cellular Neural Networks and their Applications (CNNA 2000) (Cat. No.00TH8509), Catania, Italy, Italy, 25 May 2000, pp.63-68

XVIII. **Broadband jammer excision in spread spectrum communication systems using time frequency masking**
SAATÇI E., AKAN A., KABAOĞLU N.
Proceedings of the IEEE Signal Processing Workshop on Higher-Order Statistics. SPW-HOS 'xx99, Caesarea, Israel, Israel, 14 - 16 June 1999, pp.48-51

Supported Projects

SAATÇI E., SAATÇI E., TUBITAK Project, Akciğer Basınçlarının Invasiv Olmayan Yöntemler İle Kestirilmesi Amacıyla Akciğer Basınçları Ve Akciğer Sesleri Arasındaki İlişkinin Modellenmesi, 2018 - 2020

Memberships / Tasks in Scientific Organizations

IEEE, Member, 2021 - Continues, Turkey
Elektrik Mühendisleri Odası İstanbul Şubesi, Member, 1993 - Continues, Turkey

Scientific Refereeing

Tıp Teknolojileri Kongresi TIPTEKNO'23, Conference Paper (Full Text), November 2023
Akıllı Sistemlerde Yenilikler ve Uygulamaları Konferansı ASYU 2023, Conference Paper (Full Text), October 2023
Electrica, Journal Indexed in ESCI, July 2023

Metrics

Publication: 31
Citation (WoS): 200
Citation (Scopus): 260
H-Index (WoS): 5
H-Index (Scopus): 7