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Personal Information

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Education Information

Post Doctorate, State University Of New York College At Buffalo, Department Of Computer Science And Engineering, United States Of America 2015 - 2016

Doctorate, Gebze Yüksek Teknoloji Enstitüsü, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, Turkey 2007 - 2011

Postgraduate, Fatih Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, Turkey 2004 - 2006

Undergraduate Minor, Fatih Üniversitesi, İktisadi Ve İdari Bilimler Fakültesi, İşletme, Turkey 2002 - 2004

Undergraduate, Fatih Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği, Turkey 2000 - 2004

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Machine Learning Based Object Localization And Contour Extraction In Medical Images With Prior Information, Gebze Yüksek Teknoloji Enstitüsü, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, 2011

Postgraduate, Air pollution forecasting using data mining , Fatih Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, 2006

Research Areas

Computer Sciences, Artificial Intelligence, Computer Learning and Pattern Recognition, Computer Learning, Pattern Recognition and Image Processing, Neural Networks, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Istanbul Medeniyet University, Bilgisayar Mühendisliği, 2011 - Continues

Research Assistant, Gebze Yüksek Teknoloji Enstitüsü, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2008 - 2011

Academic and Administrative Experience

İstanbul Medeniyet Üniversitesi, Bilgisayar Mühendisliği, 2012 - 2015

Courses

Digital Image Processing, Undergraduate, 2013 - 2014

Örüntü Tanıma, Undergraduate, 2012 - 2013

Advising Theses

OKTAY A. B. , Automatic tooth detection and labelling from radiographic images, Postgraduate, S.Güzel(Student), 2014

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

- I. **The validity of an objective measurement method using the Leap Motion Controller for fingers wrist, and forearm ranges of motion**
ARMAN S. N. , OKTAY A. B. , TARAKCI D., TARAKCI E., AKGÜL Y. S.
HAND SURGERY & REHABILITATION, vol.40, no.4, pp.394-399, 2021 (Journal Indexed in SCI)
- II. **Differential diagnosis of Parkinson and essential tremor with convolutional LSTM networks**
OKTAY A. B. , Kocer A.
BIOMEDICAL SIGNAL PROCESSING AND CONTROL, vol.56, 2020 (Journal Indexed in SCI)
- III. **Automatic detection, localization and segmentation of nano-particles with deep learning in microscopy images**
OKTAY A. B. , Gurses A.
MICRON, vol.120, pp.113-119, 2019 (Journal Indexed in SCI)
- IV. **Human identification with dental panoramic radiographic images**
OKTAY A. B.
IET BIOMETRICS, vol.7, no.4, pp.349-355, 2018 (Journal Indexed in SCI)
- V. **Nintendo Wii assessment of Hoehn and Yahr score with Parkinson's disease tremor**
Kocer A., OKTAY A. B.
TECHNOLOGY AND HEALTH CARE, vol.24, no.2, pp.185-191, 2016 (Journal Indexed in SCI)
- VI. **Computer aided diagnosis of degenerative intervertebral disc diseases from lumbar MR images**
OKTAY A. B. , Albayrak N. B. , Akgul Y. S.
COMPUTERIZED MEDICAL IMAGING AND GRAPHICS, vol.38, no.7, pp.613-619, 2014 (Journal Indexed in SCI)
- VII. **Extraction of left ventricle borders with local and global priors from echocardiograms**
OKTAY A. B. , Akgul Y. S.
MACHINE VISION AND APPLICATIONS, vol.24, no.7, pp.1393-1403, 2013 (Journal Indexed in SCI)
- VIII. **Simultaneous Localization of Lumbar Vertebrae and Intervertebral Discs With SVM-Based MRF**
OKTAY A. B. , Akgul Y. S.
IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING, vol.60, no.9, pp.2375-2383, 2013 (Journal Indexed in SCI)
- IX. **A Modular Framework for Shape- and Image-prior-based Anatomical Structure Contour Extraction**
Oktay A. B. , Akgul Y. S.
JOURNAL OF MEDICAL AND BIOLOGICAL ENGINEERING, vol.31, no.6, pp.413-420, 2011 (Journal Indexed in SCI)
- X. **Forecasting air pollutant indicator levels with geographic models 3 days in advance using neural networks**
Kurt A. B. , Oktay A. B.
EXPERT SYSTEMS WITH APPLICATIONS, vol.37, no.12, pp.7986-7992, 2010 (Journal Indexed in SCI)
- XI. **An online air pollution forecasting system using neural networks**
Kurt A., Gulbagci B., Karaca F., Alagha O.
ENVIRONMENT INTERNATIONAL, vol.34, no.5, pp.592-598, 2008 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Tooth Localization with Coarse-to-Fine Auto-Encoders**
OKTAY A. B.
BİLİŞİM TEKNOLOJİLERİ DERGİSİ, vol.11, no.1, pp.29-34, 2018 (International Refereed University Journal)
- II. **Architectural, Technological and Performance Issues in Enterprise Applications**
Oktay M., OKTAY A. B. , Sarıöz M.
International Journal Of Computer And Information Science and Engineering, vol.1, no.2, pp.114-119, 2007
(International Refereed University Journal)

Books & Book Chapters

- I. **Diagnosis of Degenerative Intervertebral Disc Disease with Deep Networks and SVM**
OKTAY A. B. , Akgül Y. S.
in: Communications in Computer and Information Science, Czachórski T., Gelenbe E., Grochla K., Lent R., Editor,
Springer-Verlag , X, pp.253-261, 2016

Refereed Congress / Symposium Publications in Proceedings

- I. **Diagnosis of COVID-19 with a Deep Learning Approach on Chest CT Slices**
Yener F. M. , Oktay A. B.
2020 Medical Technologies Congress, TIPTEKNO 2020, Antalya, Turkey, 19 - 20 November 2020
- II. **Tooth Restoration and Dental Work Detection on Panoramic Dental Images via CNN**
Gurses A., Oktay A. B.
2020 Medical Technologies Congress, TIPTEKNO 2020, Antalya, Turkey, 19 - 20 November 2020
- III. **Human identification with panoramic dental images using mask R-CNN and SURF**
Gurses A., Oktay A. B.
5th International Conference on Computer Science and Engineering, UBMK 2020, Diyarbakır, Turkey, 9 - 10
September 2020, pp.232-237
- IV. **Forecasting CO2 Emission with Machine Learning Methods**
GARİP E., OKTAY A. B.
International Conference on Artificial Intelligence and Data Processing (IDAP), Malatya, Turkey, 28 - 30 September
2018
- V. **Air Pollution Forecasting with Random Forest Time Series Analysis**
Altıncop H., OKTAY A. B.
International Conference on Artificial Intelligence and Data Processing (IDAP), Malatya, Turkey, 28 - 30 September
2018
- VI. **Nanoparticle Detection from TEM Images with Deep Learning**
Güven G., OKTAY A. B.
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- VII. **Prostate localization from abdominal ultrasound images by using a two-level approach**
Albayrak N. B. , OKTAY A. B. , Akgül Y. S.
Signal Processing and Communications Applications Conference, Antalya, Turkey, 15 May 2017, pp.1-4
- VIII. **Tooth Detection with Convolutional Neural Networks**
OKTAY A. B.
Medical Technologies National Congress (TIPTEKNO), Trabzon, Turkey, 12 - 14 October 2017
- IX. **Diagnosis of degenerative intervertebral disc disease with deep networks and SVM**
Oktay A. B. , Akgul Y. S.
31st International Symposium on Computer and Information Sciences, ISCIS 2016, Krakow, Poland, 27 - 28

October 2016, vol.659, pp.253-261

- X. **Automatic Tooth Identification in Dental Panoramic Images with Atlas-based Models**
Guzel S., OKTAY A. B. , Tufan K.
International Conference on Pattern Recognition Applications and Methods (ICPRAM 2015), Lizbon, Portugal, 09 January 2015, pp.136-141
- XI. **PROSTATE DETECTION FROM ABDOMINAL ULTRASOUND IMAGES: A PART BASED APPROACH**
Albayrak N. B. , OKTAY A. B. , Akgul Y. S.
IEEE International Conference on Image Processing (ICIP), Quebec City, Canada, 27 - 30 September 2015, pp.1955-1959
- XII. **Machine Learning Based Assessment of Resting Tremor for Evaluating Parkinson's Disease**
OKTAY A. B. , Okay M., Koçer A.
International Conference on Applied Informatics for Health and Life Sciences, İzmir, Turkey, 19 October 2014, vol.1, pp.123-126
- XIII. **GEM İMGELERİNDEKİ Fe₃O₄ NANO PARÇACIKLARIN BÖLÜTLENMESİ**
VURAL U., OKTAY A. B.
IEEE 22. Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Trabzon, Turkey, 23 April 2014, pp.1-4
- XIV. **SEGMENTATION OF Fe₃O₄ NANO PARTICLES IN TEM IMAGES**
VURAL U., OKTAY A. B.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.1849-1852
- XV. **Lomber MR Görüntülerden Desikasyon Tespiti**
OKTAY A. B. , Albayrak N. B. , Akgül Y. S.
21. Sinyal İşleme ve Uygulamaları Kurultayı, Gazimagusa, Cyprus (Kkct), 01 April 2013, pp.1-4
- XVI. **Desiccation Detection from Lumbar MR Images**
OKTAY A. B. , Albayrak N. B. , AKGÜL Y. S.
21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013
- XVII. **Localization of intervertebral lumbar discs**
Albayrak N., OKTAY A. B. , Akgül Y. S.
IEEE 20. Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Muğla, Turkey, 01 April 2012, pp.1-4
- XVIII. **Localization of the Lumbar Discs using Machine Learning and Exact Probabilistic Inference**
OKTAY A. B. , Akgül Y. S.
14th International Conference of Medical Image Computing and Computer Assisted Intervention- MICCAI 2011, Canada, 01 September 2011, pp.158-165
- XIX. **Localization of the Lumbar Discs Using Machine Learning and Exact Probabilistic Inference**
Oktay A. B. , Akgul Y. S.
14th International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI 2011), Toronto, Canada, 18 - 22 September 2011, vol.6893, pp.158-165
- XX. **Locating Cardiac Walls with Adaboost and Level Sets**
OKTAY A. B. , Akgül Y. S.
IEEE 18. Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Diyarbakır, Turkey, 01 April 2010, pp.503-506
- XXI. **Echocardiography contour extraction with local and global priors through boosting and level sets**
Oktay A. B. , Akgül Y. S.
2009 IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2009, Miami, FL, United States Of America, 20 - 25 June 2009, pp.46-51
- XXII. **Artificial Neural Networks based modelling of CO: Effects of spatial parameters**
Kurt A., OKTAY A. B. , Karaca F., Alagha O.
Information Technologies in Environmental Engineering, Greece, 01 May 2009, vol.1, pp.345-356
- XXIII. **Echocardiographic Contour Extraction with Local and Global Priors through Boosting and Level Sets**
Oktay A. B. , Akgul Y. S.
IEEE-Computer-Society Conference on Computer Vision and Pattern Recognition Workshops, Florida, United States Of America, 20 - 25 June 2009, pp.109-114

- XXIV. **Airpol: Web Tabanlı Hava Kirliliği Tahmin Sistemi**
OKTAY A. B. , Karaca F., Kurt A., Alagha O.
Atmos 2008, Konya, Turkey, 01 May 2008, pp.303-308
- XXV. **Kent Hava Kalitesinde Modelleme Yaklaşımı**
Karaca F., OKTAY A. B. , Kurt A., Alagha O., Anıl İ., Uygur N., Öztürk Z.
Ulusal Hava Kalitesi Sempozyumu, Konya, Turkey, 01 May 2008, pp.1-5
- XXVI. **Prior Information Based Segmentation: A 3D Level Set Surface Matching Approach**
Oktay A. B. , Akgul Y. S.
23rd International Symposium on Computer and Information Sciences (ISCIS), İstanbul, Turkey, 27 - 29 October 2008, pp.419-424
- XXVII. **A novel level set based echocardiographic contour extraction method with prior knowledge**
Oktay A. B. , Akgul Y. S.
2008 19th British Machine Vision Conference, BMVC 2008, Leeds, United Kingdom, 1 - 04 September 2008
- XXVIII. **Ev güvenlik ve takip sistemi uygulaması**
Oktay M., OKTAY A. B. , Gürel A. V.
"Ulusal Teknik Eğitim, Mühendislik ve Eğitim Bilimleri Sempozyumu (UMES), Kocaeli, Turkey, 01 June 2007

Supported Projects

- OKTAY A. B. , TUBITAK Project, Abdominal Ultrason Görüntülerinden Prostat Büyüklüğünün Otomatik Ölçümü, 2015 - Continues
- OKTAY A. B. , ARAS F., Project Supported by Higher Education Institutions, İstanbul Kalkınma Ajansı Tarafından Desteklen AFETLER SONRASINDA UZMAN DOKTORLARIN EN HIZLI SEKILDE İHTİYAÇ DUYULAN HASTANEYE ÇEVİRİM İÇİ YÖNLENDİRİLMELERİ Teşvik Projesi, 2014 - Continues
- OKTAY A. B. , TUBITAK Project, Dış Görüntülerinin Biyometrik Olarak Kullanılarak Otomatik Kimlik Belirlenmesi, 2013 - Continues
- OKTAY A. B. , Garip E., Altınçöp H., Project Supported by Higher Education Institutions, CO2 Emisyonunun Makine Öğrenmesi Metotları ile Tahmin Edilmesi Rastgele Orman Zaman Serisi Analizi ile Hava Kirliliği Tahmini, 2018 - 2019
- OKTAY A. B. , Project Supported by Higher Education Institutions, Konvolüsyonel Yapay Sinir Ağları ile Dış Tespiti, 2017 - 2017
- TÜRÜT A., AKDENİZ DURAN E., ÖZKAN M. A. , SÖĞÜT S., OKTAY A. B. , ARAS F., GENÇ İ., AKTAŞ Ö., GEREN I. N. , KURT H., et al., Project Supported by Higher Education Institutions, Fen Bilimleri Enstitüsü Disiplinler Arası Lisansüstü Araştırma Laboratuvarlarının Kurulması, 2013 - 2016
- VURAL U., OKTAY A. B. , Project Supported by Higher Education Institutions, GEM İMGELERİNDEKİ Fe3O4 NANO PARÇACIKLARIN BÖLÜTLENMESİ, 2014 - 2015
- OKTAY A. B. , Okay M., KOÇER A., Project Supported by Higher Education Institutions, Bilgisayarla Görme Metotları ile Parkinson Hastalığının Tespit Edilmesi ve Değerlendirilmesi, 2013 - 2015
- OKTAY A. B. , Industrial Thesis Project, Bel MR görüntüleri için tanı koyma ve rapor hazırlama sistemi, 2012 - 2013

Scientific Refereeing

- MICCAI, Other Indexed Journal, April 2015
- Chemosphere, SCI Journal, January 2014
- Computerized Medical Imaging and Graphics, SCI Journal, January 2014
- Journal of Medical and Biological Engineering, SCI Journal, January 2013
- International Research Journal of Engineering Science, Technology and Innovation, Other Indexed Journal, January 2012
- Machine Vision and Applications, SCI Journal, January 2011
- Turkish Journal of Electrical Engineering and Computer Sciences, SCI Journal, January 2011
- Mathematical Methods in Biomedical Image Analysis (MMBIA) 2008, Other journals, January 2008

Citations

Total Citations (WOS):264

h-index (WOS):6

Scholarships

Akademik Arařtırma Bursu, Other Government Agencies, 2015 - Continues