

Dr. İlkey Öksüz

Kişisel Bilgiler

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Biyografi

İstanbul Teknik Üniversitesi Bilgisayar Mühendisliği Bölümünde Dr. Öğretim üyesi olarak çalışmaktayım. Daha önce, King's College London'ın Biyomedikal Mühendisliği Bölümünde araştırmacı olarak çalışıyordum. Doktora derecemi Toskana'da meritokratik bir yüksek öğrenim okulu olan ve adayların sadece % 2'sinin kabul edildiği IMT İleri Araştırmalar Okulu'nda Bilgisayar, Karar ve Sistem Bilimi üzerine yaptım. 2017 yılında Edinburgh Üniversitesi IDCOM laboratuvarında misafir araştırmacı olarak çalıştım. 2016 yılında Yale Üniversitesi Diagnostik Radyoloji Bölümünde doktora öğrencisi olarak çalışmalarda bulundum.

Yabancı Diller

İngilizce, C2 Ustalık

İtalyanca, B1 Orta

Almanca, C2 Ustalık

Araştırma Alanları

Yapay Zeka, Bilgisayarda Öğrenme ve Örüntü Tanıma, Mühendislik ve Teknoloji

Akademik Unvanlar / Görevler

Araştırma Görevlisi Dr., University of London-Kings College London, Biyomedikal Mühendisliği Bölümü, 2017 - Devam Ediyor

Araştırmacı, University of Edinburgh, Dijital Haberleşme Enstitüsü, 2017 - 2017

Araştırma Görevlisi, Yale University, Radyoloji ve Biyomedikal Görüntüleme, 2015 - 2016

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- Left Ventricle Quantification Challenge: A Comprehensive Comparison and Evaluation of Segmentation and Regression for Mid-Ventricular Short-Axis Cardiac MR Data**
Xue W., Li J., Hu Z., Kerfoot E., Clough J., Oksuz I., Xu H., Grau V., Guo F., Ng M., et al.
IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS, cilt.25, sa.9, ss.3541-3553, 2021 (SCI İndekslerine Giren Dergi)
- Inter-vendor performance of deep learning in segmenting acute ischemic lesions on diffusion-weighted imaging: a multicenter study**
ALİS D. C., Yergin M., ALİŞ C., Topel C., Asmakutlu O., Bağcılar O., Senli Y. D., ÜSTÜNDAĞ A., SALT V., Dogan S. N., et al.
SCIENTIFIC REPORTS, cilt.11, sa.1, 2021 (SCI İndekslerine Giren Dergi)

- III. **Brain MRI artefact detection and correction using convolutional neural networks**
Öksüz İ.
COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE, cilt.199, 2021 (SCI İndekslerine Giren Dergi)
- IV. **Comparison of machine learning methods for prediction of osteoradionecrosis incidence in patients with head and neck cancer**
Humbert-Vidan L., Patel V., Oksuz I., King A. P., Urbano T. G.
BRITISH JOURNAL OF RADIOLOGY, cilt.94, sa.1120, 2021 (SCI İndekslerine Giren Dergi)
- V. **Deep Learning-Based Detection and Correction of Cardiac MR Motion Artefacts During Reconstruction for High-Quality Segmentation**
Öksüz İ., Clough J. R., Ruijsink B., Anton E. P., Bustin A., Cruz G., Prieto C., King A. P., Schnabel J. A.
IEEE TRANSACTIONS ON MEDICAL IMAGING, cilt.39, sa.12, ss.4001-4010, 2020 (SCI İndekslerine Giren Dergi)
- VI. **A multi-scale variational neural network for accelerating motion-compensated whole-heart 3D coronary MR angiography**
Fuin N., Bustin A., Kustner T., Öksüz İ., Clough J., King A. P., Schnabel J. A., Botnar R. M., Prieto C.
MAGNETIC RESONANCE IMAGING, cilt.70, ss.155-167, 2020 (SCI İndekslerine Giren Dergi)
- VII. **Fully Automated, Quality-Controlled Cardiac Analysis From CMR Validation and Large-Scale Application to Characterize Cardiac Function**
Ruijsink B., Puyol-Antón E., Oksuz İ., Sinclair M., Bai W., Schnabel J., Razavi R., King A.
JACC-CARDIOVASCULAR IMAGING, cilt.13, sa.3, ss.684-695, 2020 (SCI İndekslerine Giren Dergi)
- VIII. **An objective comparison of detection and segmentation algorithms for artefacts in clinical endoscopy**
Ali S., Zhou F., Braden B., Bailey A., Yang S., Cheng G., Zhang P., Li X., Kayser M., Soberanis-Mukul R. D., et al.
SCIENTIFIC REPORTS, cilt.10, sa.1, 2020 (SCI İndekslerine Giren Dergi)
- IX. **Neural Network Based Model Comparison for Intraday Electricity Price Forecasting**
Oksuz İ., Ugurlu U.
ENERGIES, cilt.12, sa.23, 2019 (SCI İndekslerine Giren Dergi)
- X. **Automatic CNN-based detection of cardiac MR motion artefacts using k-space data augmentation and curriculum learning**
Oksuz İ., Ruijsink B., Puyol-Anton E., Clough J. R., Cruz G., Bustin A., Prieto C., Botnar R., Rueckert D., Schnabel J. A., et al.
MEDICAL IMAGE ANALYSIS, cilt.55, ss.136-147, 2019 (SCI İndekslerine Giren Dergi)
- XI. **Accurate needle-free assessment of myocardial oxygenation for ischemic heart disease in canines using magnetic resonance imaging**
Yang H., Oksuz İ., Dey D., Sykes J., Klein M., Butler J., Kovacs M. S., Sobczyk O., Cokic I., Slomka P. J., et al.
SCIENCE TRANSLATIONAL MEDICINE, cilt.11, sa.494, 2019 (SCI İndekslerine Giren Dergi)
- XII. **The Financial Effect of the Electricity Price Forecasts' Inaccuracy on a Hydro-Based Generation Company**
Ugurlu U., Taş O., Kaya A., Oksuz İ.
ENERGIES, cilt.11, sa.8, 2018 (SCI İndekslerine Giren Dergi)
- XIII. **Electricity Price Forecasting Using Recurrent Neural Networks**
Ugurlu U., Oksuz İ., Tas O.
ENERGIES, cilt.11, sa.5, 2018 (SCI İndekslerine Giren Dergi)
- XIV. **Statistical Shape Modeling of the Left Ventricle: Myocardial Infarct Classification Challenge**
Suinesiaputra A., Ablin P., Alba X., Alessandrini M., Allen J., Bai W., Cimen S., Claes P., Cowan B. R., D'hooge J., et al.
IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS, cilt.22, sa.2, ss.503-515, 2018 (SCI İndekslerine Giren Dergi)
- XV. **Unsupervised Myocardial Segmentation for Cardiac BOLD**
Oksuz İ., Mukhopadhyay A., Dharmakumar R., Tsiftaris S. A.
IEEE TRANSACTIONS ON MEDICAL IMAGING, cilt.36, sa.11, ss.2228-2238, 2017 (SCI İndekslerine Giren Dergi)
- XVI. **Comparing algorithms for automated vessel segmentation in computed tomography scans of the lung: the VESSEL12 study**

Rudyanto R. D. , Kerkstra S., van Rielwort E. M. , Fetita C., Brillet P., Lefevre C., Xue W., Zhu X., Liang J., Oksuz İ., et al.
MEDICAL IMAGE ANALYSIS, cilt.18, sa.7, ss.1217-1232, 2014 (SCI İndekslerine Giren Dergi)

- XVII. **Standardized evaluation framework for evaluating coronary artery stenosis detection, stenosis quantification and lumen segmentation algorithms in computed tomography angiography**
Kirisli H. A. , SCHAAP M., METZ C. T. , DHARAMPAL A. S. , MEIJBOOM W. B. , PAPADOPOULOU S. L. , DEDIC A., NIEMAN K., DE GRAAF M. A. , Meijs M. F. L. , et al.
MEDICAL IMAGE ANALYSIS, cilt.17, sa.8, ss.859-876, 2013 (SCI İndekslerine Giren Dergi)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **Detection and correction of cardiac MRI motion artefacts during reconstruction from k-space**
ÖKSÜZ İ., Clough J. R. , Ruijsink B., Puyol-Anton E., Bustin A., Cruz G., Prieto C., Rueckert D., King A. P. , Schnabel J. A.
Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 13 - 17 Ekim 2019, cilt.11767, ss.695
- II. **Global and local interpretability for cardiac MRI classification**
Clough J. R. , ÖKSÜZ İ., Puyol-Anton E., Ruijsink B., King A. P. , Schnabel J. A.
Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 13 - 17 Ekim 2019, cilt.11767, ss.656
- III. **Mechanically Powered Motion Imaging Phantoms: Proof of Concept**
Gomez A., schmitz C., henningson m., Housden J., Noh Y., Zimmer V. A. , Clough J. R. , ÖKSÜZ İ., Toussaint N., King A. P. , et al.
2019 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Berlin, Germany, 23 - 27 Temmuz 2019, cilt.2019, ss.2723-2726
- IV. **MAGNETIC RESONANCE FINGERPRINTING USING RECURRENT NEURAL NETWORKS**
ÖKSÜZ İ., Cruz G., Clough J. R. , Bustin A., Fuin N., Botnar R., Prieto C., King A. P. , Schnabel J. A.
2019 IEEE 16TH INTERNATIONAL SYMPOSIUM ON BIOMEDICAL IMAGING (ISBI 2019), Venice, İtalya, 8 - 11 Nisan 2019, ss.1537-1540
- V. **Explicit Topological Priors for Deep-Learning Based Image Segmentation Using Persistent Homology**
Clough J. R. , ÖKSÜZ İ., Bryne N., Schnabel J. A. , King A. P.
INFORMATION PROCESSING IN MEDICAL IMAGING, IPMI 2019, Hong Kong, 2 - 07 Haziran 2019
- VI. **Artefact detection in video endoscopy using retinanet and focal loss function**
ÖKSÜZ İ., Clough J. R. , King A. P. , Schnabel J. A.
CEUR Workshop Proceedings, 08 Nisan 2019, cilt.2366
- VII. **Left-Ventricle Quantification Using Residual U-Net**
Kerfoot E., Clough J. R. , ÖKSÜZ İ., Lee J., King A. P. , Schnabel J. A.
Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 16 Eylül 2018, cilt.11395, ss.371
- VIII. **Deep learning using K-space based data augmentation for automated cardiac MR motion artefact detection**
ÖKSÜZ İ., Ruijsink B., Puyol-Anton E., Bustin A., Cruz G., Prieto C., Rueckert D., Schnabel J. A. , King A. P.
Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 16 - 20 Eylül 2018, cilt.11070, ss.250
- IX. **Cardiac MR Motion Artefact Correction from K-space Using Deep Learning-Based Reconstruction**
ÖKSÜZ İ., Clough J. R. , Bustin A., Cruz G., Prieto C., Botnar R., Rueckert D., Schnabel J. A. , King A. P.
MACHINE LEARNING FOR MEDICAL IMAGE RECONSTRUCTION, MLMIR 2018, Granada, Nikaragua, 16 Eylül 2018, cilt.11074, ss.21-29
- X. **AUTOMATIC LEFT VENTRICULAR OUTFLOW TRACT CLASSIFICATION FOR ACCURATE CARDIAC MR PLANNING**
ÖKSÜZ İ., Ruijsink B., Puyol-Anton E., Sinclair M., Rueckert D., Schnabel J. A. , King A. P.
2018 IEEE 15TH INTERNATIONAL SYMPOSIUM ON BIOMEDICAL IMAGING (ISBI 2018), Washington, Kiribati, 4 -

07 Nisan 2018, ss.462-465

- XI. **Joint myocardial registration and segmentation of cardiac BOLD MRI**
ÖKSÜZ İ., Dharmakumar R., Tsaftaris S. A.
Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 10 Eylül 2017, cilt.10663, ss.12
- XII. **MRI-TRUS Image Synthesis with Application to Image-Guided Prostate Intervention**
Onofrey J., ÖKSÜZ İ., Sarkar S., Venkataraman R., Staib L. H. , Papademetris X.
SIMULATION AND SYNTHESIS IN MEDICAL IMAGING, SASHIMI 2016, Athens, Yunanistan, 21 Ekim 2016
- XIII. **Towards joint segmentation and registration of the myocardium in CP-BOLD MRI at rest**
ÖKSÜZ İ., Dharmakumar R., Tsaftaris S. A.
Journal of Cardiovascular Magnetic Resonance, 27 - 30 Ocak 2016, cilt.18, ss.34
- XIV. **BOLD contrast: A challenge for cardiac image analysis**
ÖKSÜZ İ., Marco B., Mukhopadhyay A., Dharmakumar R., Tsaftaris S. A.
Journal of Cardiovascular Magnetic Resonance, 27 - 30 Ocak 2016, cilt.18, ss.27
- XV. **Supervised learning of functional maps for infarct classification**
Mukhopadhyay A., ÖKSÜZ İ., Tsaftaris S. A.
Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 5 - 09 Ekim 2015, cilt.9534, ss.162
- XVI. **Unsupervised Myocardial Segmentation for Cardiac MRI**
Mukhopadhyay A., ÖKSÜZ İ., Marco B., Dharmakumar R., Tsaftaris S. A.
MEDICAL IMAGE COMPUTING AND COMPUTER-ASSISTED INTERVENTION, PT III, Munich, Almanya, 5 - 09 Ekim 2015, cilt.9351, ss.12-20
- XVII. **Dictionary Learning Based Image Descriptor for Myocardial Registration of CP-BOLD MR**
ÖKSÜZ İ., Mukhopadhyay A., Marco B., Dharmakumar R., Tsaftaris S. A.
MEDICAL IMAGE COMPUTING AND COMPUTER-ASSISTED INTERVENTION - MICCAI 2015, PT II, Munich, Almanya, 5 - 09 Ekim 2015, cilt.9350, ss.205-213
- XVIII. **Data-Driven Feature Learning for Myocardial Segmentation of CP-BOLD MRI**
Mukhopadhyay A., ÖKSÜZ İ., Marco B., Dharmakumar R., Tsaftaris S. A.
FUNCTIONAL IMAGING AND MODELING OF THE HEART (FIMH 2015), Maastricht, Hollanda, 25 - 27 Haziran 2015, cilt.9126, ss.189-197
- XIX. **REGION GROWING ON FRANGI VESSELNESS VALUES IN 3-D CTA DATA**
ÖKSÜZ İ., ÜNAY D., KADIPAŞAOĞLU A. K.
2013 21ST SIGNAL PROCESSING AND COMMUNICATIONS APPLICATIONS CONFERENCE (SIU), Türkiye, 24 - 26 Nisan 2013
- XX. **Automated Aortic Supravalvular Sinus Detection in Conventional Computed Tomography Image**
ÜNAY D., Harmanakaya i., ÖKSÜZ İ., KADIPAŞAOĞLU A. K. , ÇUBUK R., ÇELİK L.
2013 21ST SIGNAL PROCESSING AND COMMUNICATIONS APPLICATIONS CONFERENCE (SIU), 24 - 26 Nisan 2013

Atıflar

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