

Asst. Prof. EMRE AKBAŞ

Personal Information

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Education Information

Doctorate, University Of Illinois At Urbana-Champaign, College Of Engineering, Department Of Electrical And Computer Engineering, United States Of America 2006 - 2011

Post Graduate, Middle East Technical University, Faculty of Engineering, Department of Environmental Engineering, Turkey 2004 - 2006

Under Graduate, Middle East Technical University, Faculty of Engineering, Department of Environmental Engineering, Turkey 1999 - 2004

Dissertations

Doctorate, Generation and analysis of segmentation trees for natural images, University Of Illinois At Urbana-Champaign, Department Of Electrical And Computer Engineering, 2011

Post Graduate, Automatic image annotation by ensemble of visual descriptors, Orta Doğu Teknik Üniversitesi, Faculty of Engineering, Department of Environmental Engineering, 2006

Research Areas

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

Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Computer Engineering, 2018 - Continues

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Computer Engineering, 2015 - 2018

Research Assistant PhD, University Of California, Santa Barbara, -, Department Of Psychological And Brain Sciences, 2012 - 2015

Research Assistant, University Of Illinois At Urbana-Champaign, Mühendislik, Department Of Electrical And Computer Engineering, 2006 - 2011

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Computer Engineering, 2005 - 2006

Professional Experience

Deputy Head of Department, Middle East Technical University, Faculty of Engineering, Department of Environmental Engineering, 2018 - Continues

Courses

Deep Learning, Doctorate, 2017 - 2018

Logic Design, Under Graduate, 2017 - 2018

Computer Engineering Design I, Under Graduate, 2017 - 2018, 2018 - 2019

Advising Theses

AKBAŞ E., 2D/3D human pose estimation using deep convolutional neural nets, Post Graduate, M.Kocabaş(Student), 2019

AKBAŞ E., Early-exit convolutional neural networks, Post Graduate, E.Demir(Student), 2019

AKBAŞ E., Decoding cognitive states using the bag of words model on fMRI time series, Post Graduate, G.Sucu(Student), 2017

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

- **GANILLA: Generative adversarial networks for image to illustration translation**
Hicsonmez S., SAMET N., AKBAŞ E., DUYGULU ŞAHİN P.
IMAGE AND VISION COMPUTING, vol.95, 2020 (Journal Indexed in SCI)
- **Object detection through search with a foveated visual system**
Akbas E., ECKSTEIN M. P.
PLOS COMPUTATIONAL BIOLOGY, vol.13, 2017 (Journal Indexed in SCI)
- **Humans, but Not Deep Neural Networks, Often Miss Giant Targets in Scenes**
ECKSTEIN M. P. , KOEHLER K., WELBOURNE L. E. , Akbas E.
CURRENT BIOLOGY, vol.27, pp.2827-2835, 2017 (Journal Indexed in SCI)
- **Optimal and human eye movements to clustered low value cues to increase decision rewards during search**
ECKSTEIN M. P. , SCHOONVELD W., ZHANG S., MACK S. C. , Akbas E.
VISION RESEARCH, vol.113, pp.137-154, 2015 (Journal Indexed in SCI)
- **Low-Level Hierarchical Multiscale Segmentation Statistics of Natural Images**
Akbas E., Ahuja N.
IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, vol.36, pp.1900-1906, 2014 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

- **Activity Learning from Lifelogging Images**
Belli K., AKBAŞ E., Yazici A.
18th International Conference on Artificial Intelligence and Soft Computing (ICAISC), Zakopane, Poland, 16 June 2019 - 20 June 2109, vol.11509, pp.327-337
- **MicroExpNet: An Extremely Small and Fast Model For Expression Recognition From Face Images**
Cugu I., Sener E., AKBAŞ E.
9th International Conference on Image Processing Theory, Tools and Applications (IPTA), İstanbul, Turkey, 6 - 09 November 2019
- **Modeling and Decoding Complex Problem Solving Process by Artificial Neural Networks**
Akan A. K. , Kivilcim B. B. , AKBAŞ E., Newman S. D. , YARMAN VURAL F. T.
27th Signal Processing and Communications Applications Conference (SIU), Sivas, Turkey, 24 - 26 April 2019
- **Localization recall precision (LRP): A new performance metric for object detection**
Öksüz K., Çam B. C. , Akbaş E., Kalkan S.
15th European Conference on Computer Vision, ECCV 2018, Munich, Germany, 8 - 14 September 2018, pp.521-537

- **MultiPoseNet: Fast Multi-Person Pose Estimation Using Pose Residual Network**
 KOCABAŞ M., KARAGÖZ S., AKBAŞ E.
 15th European Conference on Computer Vision, ECCV 2018, Munich, Germany, 8 - 14 September 2018, pp.437-453
- **Who draw this? Caricaturist recognition using convolutional neural networks Bunu kim çizdi? Evrişimsel sinir ağları ile karikatürist tanıma**
 Hicsonmez S., SAMET N., AKBAŞ E., Duygulu P.
 26th IEEE Signal Processing and Communications Applications Conference, SIU 2018, İzmir, Turkey, 2 - 05 May 2018, pp.1-4
- **Could we create a training set for image captioning using automatic translation? Görüntü Altyazılama için Otomatik Tercümeyle Eğitim Kümesi Oluşturulabilir mi?**
 SAMET N., HIÇSÖNMEZ S., Duygulu P., AKBAŞ E.
 25th Signal Processing and Communications Applications Conference, SIU 2017, Antalya, Turkey, 15 - 18 May 2017
- **Decoding Cognitive States Using the Bag of Words Model on fMRI Time Series**
 Sucu G., AKBAŞ E., Oztekin I., Mizrak E., Vural F. Y.
 24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.2245-2248
- **A Framework for Machine Vision based on Neuro-Mimetic Front End Processing and Clustering**
 Akbas E., WADHWA A., ECKSTEIN M., MADHOW U.
 52nd Annual Allerton Conference on Communication, Control, and Computing Allerton, Illinois, United States Of America, 1 - 03 October 2014, pp.311-318
- **Pedestrian Recognition with a Learned Metric**
 DIKMEN M., Akbas E., HUANG T. S. , Ahuja N.
 10th Asian Conference on Computer Vision, Queenstown, Guyana, 8 - 12 November 2010, vol.6495, pp.501-512
- **Low-level image segmentation based scene classification**
 Akbas E., Ahuja N.
 2010 20th International Conference on Pattern Recognition, ICPR 2010, İstanbul, Turkey, 23 - 26 August 2010, pp.3623-3626
- **From Ramp Discontinuities to Segmentation Tree**
 Akbas E., Ahuja N.
 9th Asian Conference on Computer Vision, Xian, China, 23 - 27 September 2009, vol.5994, pp.123-134
- **Automatic image annotation by ensemble of visual descriptors**
 Akbas E., VURAL F. T. Y.
 IEEE Conference on Computer Vision and Pattern Recognition, Minnesota, United States Of America, 17 - 22 June 2007, pp.3620-3621
- **Design of a feature set for face recognition problem**
 Akbas E., YARMAN-VURAL F. T.
 21st International Symposium on Computer and Information Sciences (ISCIS 2006), İstanbul, Turkey, 1 - 03 November 2006, vol.4263, pp.239-241
- **A hierarchical classification system based on adaptive resonance theory**
 UYSAL M., Akbas E., YARMAN-VURAL F. T.
 IEEE International Conference on Image Processing (ICIP 2006), Georgia, United States Of America, 8 - 11 October 2006, pp.2913-2914
- **A comparison of features spaces for face recognition problem**
 OZYER G. T. , Akbas E., VURAL F. Y.
 IEEE 14th Signal Processing and Communications Applications, Antalya, Turkey, 16 - 19 April 2006, pp.750-751
- **A comparison of fuzzy ARTMAP and AdaBoost methods in image retrieval problems Görüntü erişiminde bulanık ARTMAP ve AdaBoost yöntemlerinin karşılaştırması**
 AKBAŞ E., ÖZCANLI Ö. C. , VURAL F. Y.
 IEEE 13th Signal Processing and Communications Applications Conference, SIU 2005, Kayseri, Turkey, 16 - 18 May 2005, vol.2005, pp.691-694

Supported Projects

Akbař E., Kalkan S., TUBITAK Project, Object Detection in Videos with Deep Neural Networks, 2018 - 2021
KALKAN S., AKBAř E., Project Supported by Other Private Institutions, İNSANSIZ HAVA ARAÇLARINDA TEK VE ÇİFT KAMERA İLE İNİř NOKTASINA BAĐIL KONUM KESTİRİMİ, 2018 - 2018
AKBAř E., TUBITAK Project, Fovealı görme sistemi ile nesne algılama, 2016 - 2018

Scientific Refereeing

IEEE Conference on Computer Vision and Pattern Recognition 2019, Other journals, January 2019
TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES, SCI Journal, December 2018
European Conference on Computer Vision 2018, Other journals, May 2018
TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES, SCI Journal, April 2018
IEEE Conference on Computer Vision and Pattern Recognition 2018, Other journals, January 2018

Citations

Total Citations (WOS):123
h-index (WOS):4

Scholarships

TÜBİTAK 2232 Yurda Dönüş, TUBITAK, 2016 - 2018

Awards

AKBAř E., H2020 MSCA IF Eřik Üstü Ödülü, TÜBİTAK, March 2018
Akbař E., COGS/AI Award, The Beckman Institute For Advanced Science And Technology, May 2010
Akbař E., Yılın en iyi tezi ödülü, Fen Bilimleri Enstitüsü, Orta Dogu Teknik Universitesi, August 2006