

HELİN DUTAĞACI

DATE OF BIRTH: 1976

GENDER: FEMALE

NATIONALITY: TURKISH REPUBLIC

E-MAIL: dutagach@boun.edu.tr

WWW: <http://www.busim.ee.boun.edu.tr/~helin/>

ADDRESS: BOGAZICI UNIVERSITY,

DEPARTMENT OF ELECTRICAL-ELECTRONICS
ENGINEERING,

34342, BEBEK, ISTANBUL, TURKEY

PHONE: +90 212 359 7006

FAX: +90 212 287 2465



RESEARCH INTERESTS

Machine vision, pattern recognition, 3D object modeling and recognition, multimedia indexing and retrieval, biometrics.

CURRENT RESEARCH AREAS

Subspace-based methods for object recognition, Independent Component Analysis, Nonnegative Matrix Factorization, 3D object indexing and retrieval, 3D face analysis and recognition, hand modeling and recognition.

EDUCATION

PhD student in Electrical-Electronics Engineering, Boğaziçi University (since 2002).

Thesis Subject: Subspace Methods for Object Recognition (with applications to hand recognition, 3D face recognition and 3D object indexing and retrieval)

M.S. in Electrical-Electronics Engineering, Boğaziçi University (1999-2002).

MS Thesis: "Statistical Language Models For Large Vocabulary Turkish Speech Recognition"

B.S. in Electrical-Electronics Engineering, Boğaziçi University (1994-1999).

PROFESSIONAL EXPERIENCE

Since 2000: Research and Teaching Assistant in Electrical-Electronics Engineering, Boğaziçi University.

Courses Assisted: Image Processing, Digital Signal Processing, Statistical Signal Analysis, Mathematical Methods in Electrical Engineering, Speech Processing, Communication Engineering, Electric Circuits.

2005, Summer: Researcher at Ecole Nationale Supérieure des Télécommunications (ENST), Paris.

1999-2000: Researcher in Multimedia Systems Group, The Scientific and Technological Research Council of Turkey (TUBITAK), Gebze.

FUNDED PROJECTS

Biosecure Network of Excellence (NoE) European 6th Framework Project: Development of hand recognition/authentication reference systems.

The Scientific and Technological Research Council of Turkey (TUBITAK) - Project 103E038 - 3D Object Indexing and Content-Based Retrieval.

The Scientific and Technological Research Council of Turkey (TUBITAK) - Project 104E080 - 3D Object Recognition.

AWARDS

Alper Atalay Best Student Paper Award, "3B Yüz Tanıma için Betimleme ve Öznitelik Çıkarım Yöntemlerinin İncelenmesi", IEEE-SIU 2007.

Alper Atalay Best Student Paper Award, "3B Nesnelerin Endekslenmesi ve Erisimi için Donüşüm Tabanlı Yöntemler", IEEE-SIU 2005.

COMPUTER SKILLS

- Matlab, C/C++, Java, Prolog
- Office, LaTeX, Adobe Photoshop, QuarkXPress
- PSpice, LabView
- Experience in Linux, Solaris and Iris environments

ORGANIZATION EXPERIENCE

Assistant of the General Chair of EUSIPCO-2005, Antalya, Turkey.

LANGUAGES

Turkish (native), English (fluent), French (upper-intermediate), Spanish (intermediate).

PUBLICATIONS

Journal Publications

- H. Dutagaci, B.Sankur, E. Yoruk, "A comparative analysis of global hand appearance based person recognition", *Journal of Electronic Imaging*, accepted for publication, 2007.
- B. Gokberk, H. Dutagaci, L. Akarun, B. Sankur, "Representation Plurality and Decision Level Fusion for 3D Face Recognition", *IEEE System Man and Cybernetics*, accepted for publication, 2007.
- E. Yoruk, H. Dutagaci, B. Sankur, "Hand Biometry", *Image And Vision Computing*, Volume 24, Issue 5, 1 May 2006, Pages 483-497.
- E. Arisoy, H. Dutagaci, L. M. Arslan, "A unified language model for large vocabulary continuous speech recognition of Turkish", *Signal Processing* (accepted), 2005.

Conference Papers

- H. Dutagaci, B. Gokberk, B. Sankur, L. Akarun, "A study on region-based recognition of 3D faces with expression variations", *EUSIPCO 2007*, Poznan, Poland, September 2007.
- H. Dutagaci, B. Sankur, Y.Yemez, "A comparison of data representation types, features types and fusion techniques for 3D face biometry", *14th European Signal Processing Conference, EUSIPCO 2006*, Florence, Italy, September 2006.
- H. Dutagaci, B. Sankur, Y.Yemez, "3D Face recognition by projection-based features", *SPIE Electronic Imaging Conference: Security, Steganography, and Watermarking of Multimedia Contents VIII*, 15-19 January 2006, San Jose, USA
- H. Dutagaci, B. Sankur, Y. Yemez, "Transform-based Methods for Indexing and Retrieval of 3D Objects", *The 5th International Conference on 3-D Digital Imaging and Modeling*, Ottawa, Ontario, June 2005.
- E. Yoruk, H. Dutagaci, B. Sankur, "Hand-Based Biometry", *SPIE Electronic Imaging Conference: Image and Video Communications and Processing*, 16-20 January 2005, San Jose, USA
- H. Dutagaci and L.M. Arslan "Comparison of Statistical Language Models for Turkish Speech Recognition" in *Proceedings of the 7th International Conference On Spoken Language Processing (ICSLP-2002)*, Denver, Colorado, USA, Sep. 2002, pp. 729-732.
- O. Turk, O. Sayli, H. Dutagaci and L.M. Arslan "A Sound Source Classification System Based On Subband Processing" in *Proceedings of the 3rd IEEE Benelux Signal Processing Symposium (SPS-2002)*, Leuven, Belgium, Mar. 2002, pp. 61-64.

- O. Turk, O. Sayli, H. Dutagaci and L.M. Arslan “A Sound Source Classification System Based On Subband Processing” in Proceedings of the 7th International Conference On Spoken Language Processing (ICSLP-2002), Denver, Colorado, USA, Sep. 2002, pp. 641-644.

National Conference Papers

- B. Gokberk, H. Dutagaci, L. Akarun, B. Sankur, “3B Yüz Tanıma için Betimleme ve Öznitelik Çıkarım Yöntemlerinin İncelenmesi”, SIU’07: Sinyal İşleme ve Uygulamaları Kurultayı, Eskişehir, Türkiye, 11-13 Haziran, 2007. **(Best Student Paper Award)**
- H. Dutagaci, B. Sankur, Y. Yemez, “Üç Boyutlu Yüz Tanıma”, SIU’06: Sinyal İşleme ve Uygulamaları Kurultayı, Antalya, Türkiye 17-19 Nisan, 2006.
- H. Dutagaci, B. Sankur, Y. Yemez, “3B Nesnelerin Endekslenmesi ve Erisimi için Donüşüm Tabanlı Yöntemler”, SIU’05: Sinyal İşleme ve Uygulamaları Kurultayı, Kayseri, Türkiye, 15-17 Mayıs, 2005. **(Best Student Paper Award)**
- E. Yorük, H. Dutagaci, B. Sankur, “El Biyometrisi”, SIU’05: Sinyal İşleme ve Uygulamaları Kurultayı, Kayseri, Türkiye, 15-17 Mayıs, 2005.
- H. Dutagaci and L.M. Arslan “Türkçe Konuşma Tanıma için İstatistiksel Dil Modelleri”, 2002 Sinyal İşleme ve İletişim Uygulamaları Kurultayı (SIU-2002), Denizli, Türkiye, pp. 64-69.
- O. Turk, O. Sayli, H. Dutagaci and L.M. Arslan “Alt Bant İşlemeye Dayalı Bir Ses Sınıflandırma Sistemi”, 2002 Sinyal İşleme ve İletişim Uygulamaları Kurultayı (SIU-2002), Denizli, Türkiye, pp. 58-63.