

Curriculum Vitae - Hasan DEMİREL

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PERSONAL INFORMATION

Date and Place of Birth: 12/03/1969 - Famagusta, Cyprus
Nationality: Turkish Cypriot
Marital Status: Married (two children: Mehmet and Cemaliye)
Languages: Turkish (native), English (fluent)
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EDUCATION

- Ph.D.** *Ph.D. in Electrical and Electronic Engineering*, August 1998,
Department of Electrical and Electronic Engineering, *Imperial College of Science, Technology and Medicine*, University of London, London, UK.
Thesis Title: “*Training set Analysis for Image-based Facial Feature Detection*”
Thesis Advisors: Prof. Peter Y.K. Cheung and Dr. Thomas J.W. Clarke
- M.Sc.** *M.Sc. in Advanced Computing (Distinction)*, September 1993,
Department of Computer Science, *King`s College London*, University of London, London, UK.
Thesis Title: “*Using Complete Binary Trees for Fast Parallel Computation*”
Thesis Advisor: Dr. Omer Berkman
- B.Sc.** *BSc in Electrical and Electronic Engineering (Honours)*, September 1992,
Department of Electrical and Electronic Engineering, Eastern Mediterranean University, 99628,
Famagusta, North Cyprus, via Mersin 10 – Turkey.
Project: “*Microprocessor Controlled Hydraulic Robot Arm*”
Thesis Advisor: Dr. İlper Çağlar

WORK EXPERIENCE

- Academic**
- **Lecturer- Professor Dr., 2014-today**,
Department of Electrical and Electronic Engineering, Eastern Mediterranean University,
Famagusta, North Cyprus.
Courses: *Circuit Theory I, Introduction to Logic Design, Introduction to Programming, Algorithms and Data Structures, Microprocessors I, Microprocessors II and Digital Image Processing.*
 - **Lecturer- Associate Professor Dr., 2009-2014**,
Department of Electrical and Electronic Engineering, Eastern Mediterranean University,
Famagusta, North Cyprus.
Courses: *Circuit Theory I, Introduction to Logic Design, Introduction to Programming, Algorithms and Data Structures, Microprocessors I, Microprocessors II and Digital Image Processing.*
 - **Lecturer- Assistant Professor Dr., 2000-2009**,
Department of Electrical and Electronic Engineering, Eastern Mediterranean University,
Famagusta, North Cyprus.
Courses: *Introduction to Computing, Introduction to Programming, Algorithms and Data Structures, Microprocessors I, Microprocessors II and Digital Image Processing.*
 - **Lecturer- Assistant Professor Dr., Sept. 1998-Dec. 1998**,
Department of Electrical and Electronic Engineering, Near East University, Nicosia, North
Cyprus.
Courses: *Electronics I, Electronics II and Logic Circuit Design.*
 - **Teaching/Lab Assistant, 1994-1996**,
Department of Electrical and Electronic Engineering, Imperial College of Science,

PUBLICATIONS

- **Articles in International Journals (SCI and SCI-Expanded)**

- [1] Faegheh Yeganli, Hasan Demirel, Runyi Yu, "Noise removal from MR images via iterative regularization based on higher-order singular value decomposition", *Signal Image and Video Processing*, vol: 11, Issue: 8, pp: 1477-1484, Nov 2017
- [2] Aastasia Bolotnikova, Hasan Demirel, Gholamreza Anbarjafari, "Real-time ensemble based face recognition system for NAO humanoids using local binary pattern", *Analog Integrated Circuits and Signal Processing*, vol: 92, issue: 3, pp: 467-475, Sep 2017.
- [3] Pouya Bolourchi, Hasan Demirel, Sener Uysal, "Target recognition in SAR images using radial Chebyshev moments", *Signal Image and Video Processing*, vol: 11, issue: 6, pp: 1033-1040, Sep 2017.
- [4] Iman Beheshti, Hasan Demirel, Hiroshi Matsuda, "Classification of Alzheimer's disease and prediction of mild cognitive impairment-to-Alzheimer's conversion from structural magnetic resource imaging using feature ranking and a genetic algorithm", *Computers in Biology and Medicine*, vol: 83, pp: 109-119, Apr 2017.
- [5] Farnaz Farokhian, Chunlan Yang, Hasan Demirel, Shuicai Wu, Iman Beheshti, "Automatic parameters selection of Gabor filters with the imperialism competitive algorithm with application to retinal vessel segmentation", *Biocybernetics and Biomedical Engineering*, vol: 37, issue: 1, pp: 246-254, 2017.
- [6] Iman Beheshti, Norihide Maikusa, Hiroshi Matsuda, Hasan Demirel, Gholamreza Anbarjafari, "Histogram-Based Feature Extraction from Individual Gray Matter Similarity-Matrix for Alzheimer's Disease Classification", *Journal of Alzheimers Disease*, vol: 55, issue: 4, pp: 1571-1582, 2017.
- [7] Iman Beheshti, Hasan Demirel, Farnaz Farokhian, Chunlan Yang, Hiroshi Matsuda (2016), "Structural MRI-based detection of Alzheimer's disease using feature ranking and classification error", *Computer Methods and Programs in Biomedicine*, vol.: 137, pp: 177-193, Dec 2016.
- [8] Iman Beheshti, Hasan Demirel, "Feature-ranking-based Alzheimer's disease classification from structural MRI", *Magnetic Resonance Imaging*, 34: 3. 252-263 Apr 2016.
- [9] Iman Beheshti, Hossain G T Olya, Hasan Demirel (2016), "Risk Assessment of Alzheimer's Disease using the Information Diffusion Model from Structural Magnetic Resonance Imaging", *Journal of Alzheimers Disease*, 52: 4, 1335-1342, 2016.
- [10] I. Beheshti, H. Demirel (2015), "Probability distribution function-based classification of structural MRI for the detection of Alzheimer's disease", *Computers in Biology and Medicine*, 64: 208-216 SEP 1, 2015.
- [11] Gholamreza Anbarjafari, Sara Izadpanahi, Hasan Demirel (2015), "Video resolution enhancement by using discrete and stationary wavelet transforms with illumination compensation", *SIGNAL IMAGE AND VIDEO PROCESSING*, 9: 1. 87-92 Jan 2015.
- [12] Maryam Eskandari, Onsen Toygar, Hasan Demirel (2014), "Feature extractor selection for face-iris multimodal recognition", *Signal Image and Video Processing*, 8: 6. 1189-1198 Sep 2014.
- [13] Kamil Yurtkan, Hasan Demirel (2014), "Feature selection for improved 3D facial expression recognition", *Pattern Recognition Letters*, 38: 26-33 MAR 1, 2014.
- [14] Kamil Yurtkan, Hasan Demirel (2014), "Entropy-based feature selection for improved 3D facial expression recognition", *Signal Image and Video Processing*, 8: 2. 267-277 Feb 2014.
- [15] Awwal Mohammed Rufai, Gholamreza Anbarjafari, Hasan Demirel (2014), "Lossy image compression using singular value decomposition and wavelet difference reduction", *Digital Signal Processing*, 24: 117-123 Jan 2014.
- [16] Cem Kalyoncu, Onsen Toygar, Hasan Demirel, "Interpolation-based impulse noise removal", *IET Image Processing*, vol. 7, Issue. 8, pp. 777-785, 2013.
- [17] Sara Izadpanahi, Hasan Demirel, "Motion block based video super resolution", *Digital Signal Processing, Elsevier*, vol. 23, Issue. 5, pp. 1451-1462, 2013.
- [18] S. Izadpanahi, H. Demirel, "Motion based video super resolution using edge directed interpolation and complex wavelet transform", *Signal Processing, Elsevier*, vol. 93 Issue.7, pp. 2076-2086, 2013.
- [19] Maryam Eskandari, Onsen Toygar, Hasan Demirel, "A New Approach for Face-Iris Multimodal Biometric Recognition using Score Fusion", *International Journal of Pattern Recognition and Artificial Intelligence*, vol. 27, issue. 3, article no. 1356004, 2013.
- [20] Hamit Soyel and Hasan Demirel, "Localized Discriminative Scale Invariant Feature Transform based Facial Expression Recognition", *Computers and Electrical Engineering, Elsevier*, vol. 38, no. 5, pp. 1299-1309, Sep. 2012.

- [21] Gholamreza Anbarjafari, Hasan Demirel, Erbug Celebi, "Resolution Enhancement of Images Taken by Mobile Phone Camera", *Electronics World*, vol. 118, no. 1910, pp. 30-33, 2012.
- [22] S. Izadpanahi, C. Ozcinar, G. Anbarjafari, and H. Demirel, "Resolution Enhancement of Video Sequences by Using Discrete Wavelet Transform and Illumination Compensation", *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 20, suppl. 2, pp. 1268-1276, 2012.
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- [26] Alaa Eleyan and Hasan Demirel, "Co-Occurrence Matrix and Its Statistical Features as a New Approach for Face Recognition", *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 19, pp. 97-107, Dec. 2010.
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- [30] Hasan Demirel and Gholamreza Anbarjafari, "Satellite Image Resolution Enhancement using Complex Wavelet Transform", *IEEE Geoscience and Remote Sensing Letters*, vol. 7, no. 1, pp. 123–126, Jan. 2010.
- [31] H. Soyel and H. Demirel, "Optimal Feature Selection for 3D Facial Expression Recognition using Coarse-to-Fine Classification", *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 18, no. 6, pp. 1031-1040, Nov. 2010.
- [32] Alaa Eleyan, Hasan Demirel and Huseyin Ozkaramanli, "Face Recognition from Low Resolution Video Sequence using Weighted Majority Voting", *Electronics World*, vol. 115, no. 1884, pp. 26-30, Dec. 2009.
- [33] Hasan Demirel and Gholamreza Anbarjafari, "Histogram Based Face Recognition System", *Electronics World*, vol. 115, no. 1884, pp. 32-37, Dec. 2009.
- [34] Turgay Celik, Hasan Demirel, "Fire Detection in Video Sequences using a Generic Color Model", *Fire Safety Journal*, Volume 44, Issue 2, pp. 147-158, Feb 2009.
- [35] Hasan Demirel and Gholamreza Anbarjafari, "Data Fusion Boosted Face Recognition Based on Probability Distribution Functions in Different Colour Channels", *EURASIP Journal on Advances in Signal Processing*, Article ID 482585, Jul. 2009.
- [36] Turgay Celik, Huseyin Ozkaramanli, Hasan Demirel, "Facial feature extraction using complex dual-tree wavelet transform", *Computer Vision and Image Understanding*, vol. 111, no. 2, pp. 229-246, Jul. 2008.
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- [44] Bayindir NS, Bayindir HO, Demirel H, Yakup M, Alsancak V, Kabakli T, "Cost effective vehicle speed measurement, classification and license plate detection system", *Electronics World*, pp. 36-40, Mar. 2006.
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- [47] Alaa Eleyan, Hasan Demirel, "Face Recognition System based on PCA and Feedforward Neural Networks", *Computational Intelligence and Bioinspired Systems, LNCS*, vol. 3512, pp. 935-942, 2005.
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- [49] Sabina Husic, Aykut Hocanin, Hasan Demirel, "Unequal Error Protection Using Convolutional Codes for PCA-Coded Images", *Image Analysis and Recognition, LNCS*, vol.3656, pp. 335 – 342, 2005.
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- [51] C. Direkoglu, H. Demirel, H. Ozkaramanli, M. Uyguroglu, "Efficient Face and Facial Feature Tracking using Search Region Estimation", *Image Analysis and Recognition, LNCS*, vol. 3656, pp. 1149 – 1157, 2005.

- **International Book Chapters**

- [1] Sara Izadpanahi, Cagri Ozcinar, Gholamreza Anbarjafari, and Hasan Demirel, "DWT Based Resolution Enhancement of Video Sequences", *Discrete Wavelet Transforms - A Compendium of New Approaches and Recent Applications*, edited by Awad Kh. Al - Asmari, ISBN 978-953-51-0940-2, InTech, February 2, 2013.
- [2] Hasan Demirel and Gholamreza Anbarjafari, "Probability distribution functions based face recognition system using discrete wavelet subbands", *Discrete Wavelet Transforms –Theory and Applications*, edited by Juuso T. Olkkonen, ISBN 978-953-307-185-5, InTech, April 2011.
- [3] Hamit Soyel and Hasan Demirel, "Facial Expression Recognition using 3D Facial Feature Distances", *Affective Computing, Focus on Emotion Expression, Synthesis and Recognition*, by Jimmy Or, I-Tech Education and Publishing, Chap. 1, pp. 1-12, May 2008, ISBN 978-3-902613-23-3.
- [4] Alaa Eleyan and Hasan Demirel, "PCA and LDA based Neural Networks for Human Face Recognition", *Face Recognition*, by Kresimir Delac and Mislav Grgic, I-Tech Education and Publishing, Chap. 6, pp. 93-106, July 2007, ISBN 978-3-902613-03-5.

- **International Conference Papers**

- [1] Hamit Soyel, Kamil Yurtkan, Hasan Demirel, Peter W McOwan (2016), "Brain MR Image Denoising for Rician Noise Using Intrinsic Geometrical Information", *Information Sciences and Systems 2015*, 275-284.
- [2] Tonis Uiboupin, Pejman Rasti, Gholamreza Anbarjafari, Hasan Demirel (2016), "Facial Image Super Resolution Using Sparse Representation for Improving Face Recognition in Surveillance Monitoring", *24th Signal Processing and Communication Application Conference (SIU)*, 437-440.
- [3] Aman Ghasemzadeh, Hasan Demirel (2016), "Hyperspectral Face Recognition using 3D Discrete Wavelet Transform", *Sixth International Conference on Image Processing Theory, Tools and Applications (IPTA)*.
- [4] Allaeldien Mohamed G Hnesh, Hasan Demirel (2016), "DWT-DCT-SVD based Hybrid lossy image compression technique", *Second International Image Processing, Applications and Systems (IPAS)*.
- [5] Pouya Bolourchi, Hasan Demirel, Sener Uysal (2016), "Continuous Moment-Based Features for Classification of Ground Vehicle SAR Images", *UKSIM-AMSS 10th European Modelling Symposium on Computer Modelling and Simulation (EMS)*, 53-57.
- [6] Kamil Yurtkan, Hamit Soyel, Hasan Demirel (2015), "Entropy Driven Feature Selection for Facial Expression Recognition Based On 3-D Facial Feature Distances", *23rd Signal Processing And Communications Applications Conference (SIU)*, 2322-2325.
- [7] Pejman Rasti, Iiris Lusi, Hasan Demirel, Rudolf Kiefer, Gholamreza Anbarjafari (2014), "Wavelet Transform Based New Interpolation Technique for Satellite Image Resolution Enhancement", *IEEE International Conference on Aerospace Electronics and Remote Sensing Technology (ICARES)*, 185-188.
- [8] P Rasti, I Lusi, A Sahakyan, A Traumann, A Bolotnikova, M Daneshmand, R Kiefer, A Aabloo, G Anbarjafari, H Demirel, C Ozcinar (2014), "Modified Back Projection Kernel Based Image Super Resolution", *2nd International Conference on Artificial Intelligence, Modelling and Simulation*, 161-165.
- [9] Farnaz Farokhian, Hasan Demirel (2014), "Fast Detection and Segmentation in Retinal Blood Vessels using Gabor Filters", *22nd Signal Processing and Communications Applications Conference (SIU)*, 1507-1511
- [10] Pejman Rasti, Hasan Demirel, Gholamreza Anbarjafari (2014), "Improved Iterative Back Projection for Video

Super-Resolution In: 2014 22nd Signal Processing and Communications Applications Conference (SIU), 552-555.

- [11] Pejman Rasti, Hasan Demirel, "Gholamreza Anbarjafari (2013), "Iterative Back Projection based Image Resolution Enhancement", 8th Iranian Conference on Machine Vision & Image Processing (MVIP 2013), 237-240.
- [12] Awwal Mohammed Rufai, Gholamreza Anbarjafari, Hasan Demirel (2013), "Lossy Medical Image Compression Using Huffman Coding and Singular Value Decomposition", 21st Signal Processing and Communications Applications Conference (SIU).
- [13] Pejman Rasti, Hasan Demirel, Gholamreza Anbarjafari (2013) Image Resolution Enhancement by Using Interpolation Followed by Iterative Back Projection", 21st Signal Processing and Communications Applications Conference (SIU).
- [14] Farnaz Farokhian, Hasan Demirel (2013), "Blood Vessels Detection and Segmentation in Retina using Gabor Filters", IEEE International Conference on High Capacity Optical Networks and Enabling Technologies (HONET-CNS), Famagusta, Cyprus, 2013, pp. 104-108.
- [15] Kamil Yurtkan, Hamit Soyel, Hasan Demirel, "Feature Selection for Enhanced 3D Facial Expression Recognition Based on Varying Feature Point Distances", ISCIS 2013, Proc. of the 28th International Symposium on Computer and Information Sciences, Paris, France, 2013, pp. 209-217.
- [16] Sara Izadpanahi, Hasan Demirel, "Multi-frame super resolution using edge directed interpolation and complex wavelet transform", IET Conference on Image Processing (IPR 2012), London, UK, 2012, pp. 1-5.
- [17] Fatma Ozar, Hasan Demirel, "Video coding using adaptive eigenspace", 19th International Conference on Systems, Signals and Image Processing (IWSSIP 2012), Vienna, Austria, 2012, pp. 460-463.
- [18] Kamil Yurtkan, Hasan Demirel, "Person Independent Facial Expression Recognition Using 3D Facial Feature Positions", ISCIS 2012, Proc. of the 27th International Symposium on Computer and Information Sciences, Paris, France, 2012, pp.321-329.
- [19] Cagri Ozcinar, Gholamreza Anbarjafari, Sara Izadpanahi, and Hasan Demirel, "Video Resolution Enhancement by using Complex Wavelet Transform", IEEE International Conference on Image Processing (ICIP 2011), Brussels, Belgium, Sep. 2011, pp.2093-2096.
- [20] Hamit Soyel and Hasan Demirel, "Improved SIFT Matching for Pose Robust Facial Expression", IEEE International Conference on Automatic Face and Gesture Recognition (FG 2011), Santa Barbara, USA, March 2011.
- [21] A. Eleyan, H. Demirel, "Performance Comparison among Complex Wavelet Transforms based Face Recognition Systems", International Conference on Image Processing and Communications (IPC 2010), Poland, Aug. 2010, pp. 201-209.
- [22] Demet Çakir, Hamit Soyel, Hasan Demirel, "Facial Expression Recognition based on Scale Invariant Feature Transform", International Symposium on Computing in Science & Engineering (ISCSE 2010), Izmir, Turkey, Jun. 2010.
- [23] Kamil Yurtkan and Hasan Demirel, "Model Based Facial Expression Synthesis from Single Frontal Face Image", 6th International Architecture and Engineering Symposium, Electrical and Electronics Engineering & Computer Systems, EECS-2010, Lefke, North Cyprus, Nov. 2010.
- [24] Kamil Yurtkan and Hasan Demirel, "Model Based Face Recognition Under Varying Facial Expressions", 1st International Science and Technology Conference, ISTEK 2010, Gazimagusa, North Cyprus, Oct. 2010.
- [25] K. Yurtkan, T. Çelik and H. Demirel, "Automatic Facial Synthesis from Single Frontal Face Image for Model based Video Coding", 11th IASTED Computer Graphics and Imaging Conference (CGIM 2010), Feb. 2010.
- [26] Hasan Demirel, Sara Izadpanahi, and Gholamreza Anbarjafari, "Improved Motion-Based Localized Super Resolution Technique Using Discrete Wavelet Transform for Low Resolution Video Enhancement", 17th European Signal Processing Conference (EUSIPCO-2009), Glasgow, Scotland, Aug. 2009, pp. 1097-1101.
- [27] Sener Uysal, Mustafa Konca, Hasan Demirel and Aykut Hocanin, "An Integrated Homeland Security Surveillance System", Mediterranean Microwave Symposium (MMS'2010), Aug. 2010.
- [28] U. Tekguc, H. Soyel, H. Demirel, "Feature Selection for Person-Independent 3D Facial Expression Recognition using NSGA-II", 24th International Symposium on Computer and Information Sciences (ISCIS09), METU, Guzelyurt, North Cyprus, Jun. 2009, pp. 35-38.
- [29] Hasan Demirel and Gholamreza Anbarjafari, "Improved Face Recognition System using Probability Distribution Functions Extracted from Wavelet Subbands", 24th International Symposium on Computer and Information Sciences (ISCIS09), METU, Guzelyurt, North Cyprus, Jun. 2009 pp. 94-98.
- [30] Alaa Eleyan, Huseyin Ozkaramanli, Hasan Demirel, "Adaptive and Fixed Eigenspace Methods with a Novel Fitness Measure for Video based Face Recognition", 24th International Symposium on Computer and Information Sciences (ISCIS09), METU, Guzelyurt, North Cyprus, Jun. 2009 pp. 636-640.
- [31] Alaa Eleyan, Hasan Demirel, "Co-Occurrence based Statistical Approach for Face Recognition", 24th International Symposium on Computer and Information Sciences (ISCIS09), METU, Guzelyurt, North Cyprus, Jun. 2009 pp. 646-650.
- [32] Alaa Eleyan, Hasan Demirel and Huseyin Ozkaramanli, "Weighted majority voting for face recognition from low resolution video sequences", 5th Int. Conf. on Soft Computing, Computing with Words and Perceptions in System Analysis, Decision and Control, ICSCCW 2009, Sep. 2009, pp. 1-4.

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- [37] Hasan Demirel, Gholamreza Anbarjafari, and Mohammad N. Sabet Jahromi, "Image Equalization Based on Singular Value Decomposition", *23rd International Symposium on Computer and Information Sciences, ISCIS 2008*, Istanbul, Turkey, Sep. 2008.
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- [46] R. Abrishambaf, H. Demirel, I. Kale, "A Fully CNN Based Fingerprint Recognition System", *IEEE 11th International Workshop on Cellular Neural Networks and their Applications, CNNA2008*, Spain, Jul. 2008.
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- [53] Aykut Hocanin, Hasan Demirel, Sabina Husic, "Unequal Error Protection of PCA-Coded Face Images for Transmission over Mobile Channels", *European Signal Processing Conference (EUSIPCO 2006)*, Florence, Italy, Sep. 2006.
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- [56] Ma'al A. Al-Azzeh, Hasan Demirel, "Facial Feature Extraction from Low-Resolution Video Sequences Using Super-Resolution", *ISEECE 2006, Int. Symposium and Exhibition on Electrical, Electronic and Computer*

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- [63] Sabina Husic, Hasan Demirel, "Eigen-ID: Eigenfaces for Electronic Facial Verification", *3rd FAE International Symposium, Creating the Future, (FAE 2004)*, Lefke, North Cyprus, Nov. 2004, pp. 343-347.
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- [68] H. Demirel, "Color-Space Analysis for Facial Feature Detection", *International Symposium on Video/Image Processing and Multimedia Communications (VIPromCom 2002)*, Zadar, Croatia, Jun. 2002, pp. 83-86.
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• **National Conference Papers**

- [1] P. Rasti, H. Demirel, G. Anbarjafari, "Aradeğerleme ve Ardından Geri İteratif Projeksiyon Kullanarak İmge Çözünürlüğü Geliştirme", *21. IEEE Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2013*, Girne, KKTC, 2013.
- [2] A.M. Rufai, G. Anbarjafari, H. Demirel, "Huffman Kodlama ve Telkil Değer Ayırışımı Kullanarak Yitimli Tıbbi İmge Sıkıştırma", *21. IEEE Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2013*, Girne, KKTC, 2013.
- [3] H. Taşmaz, H. Demirel, G. Anbarjafari, "Çift Ağaçlı Karmaşık Dalgacık Dönüşümü Kullanarak Uydu İmge Pekiştirme: Gürültü Ayıklama ve Aydınlatma Pekiştirme", *20. IEEE Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2012*, Antalya, Türkiye, 2012.
- [4] G. Anbarjafari, S. Izadpanahi, Ç. Özçınar, H. Demirel, "Tekil Değer Ayırışımı ve Ayrık Dalgacık Dönüşümü Kullanarak Aydınlatma Dengeleme", *19. IEEE Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2012*, Antalya, Türkiye, 2012.
- [5] Alaa Eleyan ve Hasan Demirel, "Çoklu-Çözünürlüklü İmgelerden Çıkarılan SIFT Betimleyicileriyle Yüz Tanıma", *18. IEEE Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2010*, Diyarbakir, Türkiye, Apr. 2010.
- [6] Hasan Demirel ve Gholamreza Anbarjafari, "Karmasik Dalgacık Dönüşümü ve Tekil Değer Ayırışımı tabanlı İmge Kontrast İyileştirme", *18. IEEE Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2010*, Diyarbakir, Türkiye, Apr. 2010.
- [7] Kamil Yurtkan ve Hasan Demirel, "Düşük Bit Hizli Video Kodlama Uygulamaları için MPEG-4 Uyumlu 3B Yüz Modellemesi ve Sentezi", *3. Haberleşme Teknolojileri ve Uygulamaları Sempozyumu (HABTEKUS 2009)*, Dec. 2009, pp. 282-286.
- [8] Demet Çakır, Salih Karanfil, Burçin Özmen, Hamit Soyel, Hasan Demirel, "Üç Boyutlu Yüze İlişkin İfade Tanımlaması için Olasılıksal bir Çerçeve", *3. Haberleşme Teknolojileri ve Uygulamaları Sempozyumu (HABTEKUS 2009)*, Dec. 2009, pp. 279-281.
- [9] Alaa Eleyan, Hüseyin Özkaramanli, Hasan Demirel, "Çift-Ağaç ve Tek-Ağaç Karmaşık Dalgacık Dönüşümü

- tabanlı Yüz Tanıma", 17. *IEEE Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2009*, Antalya, Türkiye, Apr. 2009.
- [10] Gholamreza Anbarjafari ve Hasan Demirel, "Farklı Renk Kanallarında Ayrık Dalgacık Ayırışımı kullanan PDF Tabanlı Yüz Tanıma Sistemi", 17. *IEEE Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2009*, Antalya, Türkiye, Apr. 2009.
- [11] Hasan Demirel and Gholamreza Anbarjafari, "Renkli Histogram Eşleştirme tabanlı yeni bir Yüz Tanıma Sistemi", 16. *IEEE Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2008*, Didim, Türkiye, Apr. 2008.
- [12] Alaa Eleyan and Hasan Demirel, "Multiresolution Eigenspace and Fisherspace Face Recognition", 16. *IEEE Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2008*, Didim, Türkiye, Apr. 2008.
- [13] R. Abrishambaf, H. Demirel, I. Kale, "Fingerprint Image Preprocessing Using CNN", *National Electrical Engineering Conference, NEEC 2008*, Esfahan, IRAN, Mar. 2008.
- [14] N. S. Bayindir, H. Demirel, M. Yakup, H. Seker, L. Yazici, "Kentsel Trafik için Hiz Denetim Sistemleri", *Yapı ve Kentte Bilisim IV. Kongresi - Bilisimle Kentleşme*, Jun. 2006.
- [15] H. Özkaramalı, A. Baradarani, H. Demirel, B. Özmen, T. Çelik, "Çoklu-Dalgacık Kullanarak Hareketli Nesne Ayrıt Sezimi ve Bölütlemesi", 14. *IEEE Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2006*, Antalya, Türkiye, Mar. 2006.
- [16] Sabina Husic, Aykut Hocanın, Hasan Demirel, "ABA Kodlu İmgeler İçin Eşit Olmayan Hata Koruması", *SIU'2005*, 13. *IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı*, Kayseri, Türkiye, May 2005, pp. 332-335.
- [17] T. Kabaklı, T. Çelik, H. Demirel, H. Özkaramanlı, M. Uyguroğlu, "ABA kullanarak Bağlantılı Bileşenler Etiketleme tabanlı Yüz Sezimi ve Poz Kestirimi", *SIU'2005*, 13. *IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Kayseri*, Türkiye, May 2005, pp. 428-431.
- [18] T. Kabaklı, T. Çelik, H. Demirel, H. Özkaramanlı, M. Uyguroğlu, A. M. Kondoç, "Bağlantılı Bileşenler Etiketleme ve Morfoloji Destekli Renk Bölütlemesiyle Kararlı Yüz İzleme", *SIU'2004*, 12. *IEEE Sinyal İşleme ve Uygulamaları Kurultayı*, Kuşadası, Türkiye, vol. 1, no. 1, Apr. 2004, pp. 442-445.
- [19] T. Çelik, T. Kabaklı, M. Uyguroğlu, H. Özkaramanlı, H. Demirel, "Otomatik Görsel Gözetme için Otomatik Eşik Değeri Seçimi", *SIU'2004*, 12. *IEEE Sinyal İşleme ve Uygulamaları Kurultayı*, Kuşadası, Türkiye, vol. 1, no. 1, Apr. 2004, pp. 478-480.
- [20] H. Demirel, "Yüz Görüntülerinde Öznitelik Sezimi için Otomatik Eğitici Küme Bölütlemesi", 9. *IEEE Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2001*, Gazimağusa, KKTC, vol. 2, Apr. 2001, pp. 495-500.

AWARDS/SCHOLARSHIPS / DISTINCTIONS

- *Granted* the "Best Paper Award for 2012" by ETRI (Electronics and Telecommunications Research Institute) Journal from South Korea.
- *Biography* included in the 25th Silver Edition of the *Marquis Who's Who in the World, 2008*.
- *Scholarship* given by Turkish Education Trust (Türk Eğitim Vakfı - TEV) for B.Sc. Study 1989-1992.
- *Scholarship* given by TRNC Ministry of Education and Culture for M.Sc. Study, (1992-1993).
- *Scholarship* given by TRNC Ministry of Education and Culture Ph.D. Study, (1993-1997).
- *Distinction* list of the M.Sc. graduates of Department of Computer Science, King's College London, University of London, UK, 1993.

PROFESSIONAL ACTIVITIES / MEMBERSHIPS

- ***Editorial Board Memberships***
 - Associate Editor of IET Electronics Letters
 - Guest Editor in EURASIP Journal on Image and Video Processing
- ***Paper Reviewer for***
 - IEEE Transactions on Image Processing
 - IEEE Transactions on Industrial Electronics
 - IEEE Transactions on Geoscience and Remote Sensing
 - IEEE Transactions on Circuits and Systems for Video Technology
 - IEEE Transactions on Neural Networks
 - IEEE Geoscience and Remote Sensing Letters
 - Oxford Journals – The Computer Journal
 - IET Computer Vision
 - IET Image Processing
 - Springer - Signal Image and Video Processing
 - Pattern Recognition – Elsevier

- Pattern Recognition Letter - Elsevier
 - Computer Vision and Image Understanding - Elsevier
 - Image and Vision Computing - Elsevier
 - Computers & Electrical Engineering - Elsevier
 - ETRI Journal (Electronics and Telecomm. Research Institute)
 - EUSIPCO 2009
 - ISCIS2009, ISCIS2006 - Int. Sym. on Computer and Information Sciences
 - SIU2001, SIU2007, SIU2009, SIU2013- IEEE Conf. on Signal Processing and its Applications
- **Research Project Referee for**
 - External Panelist for TUBITAK Projects (project codes: 2527, COST-2515, and 1002).
 - Projects funded by the TRNC Ministry of National Education and Culture.
 - Projects funded by the Eastern Mediterranean University (Type-A Research Projects).
- **Expert Advisor For**
 - Iskele Municipality: Prepared an expert report on the integrity of the Visual and Audio Systems of the Culture Center before the hand over to the municipality.
 - Cyprus Turkish Chamber of Electrical Engineers (CTCEE): Prepared an expert report on Harmonic problems in some buildings of Lefke University on behalf of CTCEE.
 - Faculty of Engineering, Eastern Mediterranean University: Prepared expert reports for the realization of the electrical installation projects for:
 - Iskele Hospital Building,
 - Iskele Fire Brigade Building,
 - Girne Governmental Offices
- **Conference Committee Memberships**
 - *Technical Program Committee Member of EUSIPCO2009, EUSIPCO2010*
 - *Local Organizing Committee Member of ICSCCW 2009*
 - *Program Committee Member of ISCIS 2009*
 - *Program Committee Member of IJRCS 2009*
 - *Session Chair in ISCIS 2008*
 - *Member of the Organizing Committee and the Program Committee of 9th IEEE Signal Processing and its Applications Conference, SIU2001.*
 - *Member of the Scientific Committee of Energy Policies Symposium 2007(Nicosia, Cyprus)*
 - *Consultancy Committee member of Network and Information Security Symposium, ABG2008.*
 - *Member of the Scientific Committee of EECS2008).*
- **Membership of the Professional Organizations**
 - *Senior Member, Institute of Electrical and Electronic Engineering (IEEE), USA.*
 - *Member, Cyprus Turkish Chamber of Electrical Engineers, North Cyprus.*

SEMINARS

- Hasan Demirel, “3D Model-based Video Coding and its Application to Distance Learning”, *International Workshop on Information Technology and Education*, organized by the University of Southern California, Ledra Palace, Nicosia, Cyprus, May 2002.
- Hasan Demirel, “Digital Image Processing”, *EEE102 - Introduction to Electrical and Electronic Engineering- Lecture Series*, Department of Electrical and Electronic Engineering, Eastern Mediterranean University (Presented annually).
- Hasan Demirel, “Robotics Training Program – Digital Image Processing”, *Robot Training Program for International Joint Robotics Competition*, Department of Computer Engineering, Eastern Mediterranean University, March 2008.

ADMINISTRATIVE/ACADEMIC POSITIONS

- **Administrative Positions**
 - *Chairman*- Department of Electrical and Electronic Engineering, Eastern Mediterranean University, 2014-today.
 - *Vice Chairman*- Department of Electrical and Electronic Engineering, Eastern Mediterranean University, 2003-2005, 2007-2014.

- *Deputy Director*- Advanced Technologies Research and Development Institute, Eastern Mediterranean University, 2003-2011.
- *Executive Committee Member*- Technopark (Gazimağusa Technology Development Center), 2006-2012.

- **Academic Positions**

- *Member of the University Information Technology Committee*, Eastern Mediterranean University, 2008-today.
- *Undergraduate Programs & Studies Committee*, Faculty of Engineering, Eastern Mediterranean University, 2008-today.
- *Industrial Relations Committee*, Faculty of Engineering, Eastern Mediterranean University, 2010-today.
- *Member of the Faculty Publications Board*, Faculty of Engineering, Eastern Mediterranean University, 2000-2007.
- *Elected member of the Faculty Council*, Faculty of Engineering, Eastern Mediterranean University, 2004-2005 and 2006-2007.
- *Member of the Undergraduate and Transfer Committee*, Department of Electrical and Electronic Engineering, Eastern Mediterranean University, 2000-today.
- *Member of the Final Year Project Committee*, Department of Electrical and Electronic Engineering, Eastern Mediterranean University, 2004-today.
- *Member of the Promotion and Social Activities Committee*, Department of Electrical and Electronic Engineering, Eastern Mediterranean University, 2000-today.
- *Member of the Computer and Web Committee*, Department of Electrical and Electronic Engineering, Eastern Mediterranean University, 2000-today.
- *Member of the Undergraduate and Transfer Committee*, Department of Electrical and Electronic Engineering, Eastern Mediterranean University, 2000-today.

TEACHING/RESEARCH ACTIVITIES

- **Teaching Activities:** Courses taught in the last ten academic years.
 - EENG111: Introduction to Computing
 - EENG112: Introduction to Programming
 - EENG211: Logic Circuit Design
 - EENG212: Algorithms and Data Structures
 - EENG223: Circuit Theory I
 - EENG410: Microprocessors I
 - EENG411: Microprocessors II
 - EE 583: Digital Image Processing
- **Research Interests**
 - Motion-based and directional super-resolution techniques,
 - Facial Expression Recognition
 - Biomedical Image Processing
 - 3D modelling analysis and synthesis of faces,
 - Face / facial-feature detection, segmentation, tracking and recognition,
 - Model-based and transform-based low bit rate video coding,
 - Machine vision & robotics
- **Supervised PhD Thesis (Completed)**
 - [1] Iman Beheshti, "Structural MRI-based classification of Alzheimer's disease ", PhD Thesis, 2016.
 - [2] Kamil Yurtkan, "Entropy Based Feature Selection for 3D Facial Expression Recognition", PhD Thesis, 2014.
 - [3] Sara Izadpanahi, "Motion block based Video Super Resolution", *PhD Thesis*, 2013.
 - [4] Gholamreza Anbarjafari, "Probability Distribution Function based Face Recognition Boosted by Data Fusion", *PhD Thesis*, 2010.
 - [5] Hamit Soyel, "3D Facial Expression Recognition with Local Face Descriptors", *PhD Thesis*,

2010.

[6] Alaa Eleyan, "*Face Recognition from Still Images and Video Sequences*", *PhD Thesis*, 2009.

- ***Supervised M.S. Thesis (Completed)***

- [1] Farhad Akhbardeh, "K-Means Clustering based Angiographic Image Analysis to Measure Coronary Stenosis", *MSc Thesis*, 2014.
- [2] Pejman Rasti, "Image Super Resolution by using Interpolation and Iterative Back Projection", *MSc Thesis*, 2013.
- [3] Farnaz Farokhian, "Blood Vessels Detection and Segmentation in Retina using Gabor Filters", *MSc Thesis*, 2013.
- [4] Fariba Beiramzadeh Azar, "Pseudo-colored Segmentation based on Fuzzy C-Means Algorithm in Detecting Lesion in MRI Brain Images", *MSc Thesis*, 2013.
- [5] Mohammed N. S. Jahromi, "Modified Segment Constrained Vector Quantizer Design", *MSc Thesis*, 2009. (Co-supervised by Asst. Prof. Dr. Kemal Demirciler)
- [6] Gholamreza Anbarjafari, "A new face recognition system based on colour statistics", *MSc Thesis*, 2008.
- [7] Ahmet E. Gokus, "Object Recognition using Video Sequences on Conveyer Line", *MSc Thesis*, 2007.
- [8] Sara Izadpanahi, "*Motion-based Localized Super Resolution Technique for Low-resolution Video Enhancement*", 2007.
- [9] Huseyin Kusetogullari, "*Real Time and Tracking of Vehicles for Speed Measurement and License Plate Detection*", 2007.
- [10] Reza Abrishambaf, "*Fingerprint Recognition System Using Cellular Neural Networks*", 2007 (Co-supervised by Prof. Dr. Izzet Kale).
- [11] Ma'al Amer Al-Azzeh, "*PCA-Based Face Recognition from Video Using Super-Resolution*", 2006.
- [12] Hamit Soyel, "MPEG-4 Compliant Face Modelling", 2005 (Co-supervised by Asst.Prof.Dr. Ekrem Varoglu).
- [13] Sabina Husic, "Image Communication using Unequal Error Protection for PCA-Coded Images", 2005 (Co-supervised by Assoc. Prof. Dr. Aykut Hocanin)
- [14] Mohammad R. Alwawi, "*Comparison of PCA and LDA based Face Recognition under non-ideal Illumination Conditions*", 2005.
- [15] Cem Direkoğlu, "*Scale and Translation Invariant Face and Facial Feature Detection, Extraction and Tracking*", 2004.
- [16] Fatma Ozar, "*KLT based Video Coding using Adaptive Eigenspace*", 2004, (Co-supervised by Assoc.Prof. Dr. Huseyin Bilgekul).
- [17] Aurangzaib Hanif, "*Skin Color Based Human Face Detection and Tracking*", 2003.

- ***Project Director of the following Research Projects***

- Project Title: "Real-time Identity Verification System for Biometric Security Applications",
Project Team: Asst. Prof. Dr. Hasan Demirel (Director),
Prof. Dr. Izzet Kale,
Reza Abrishambaf (Research Assistant).
Funding Body: *TRNC Ministry of National Education and Culture* (MEKB-07-02),
Amount of Funding: 10,000 USD
Starting Date: 06/12/2007
Status: *Project Completed*

- Project Title: "Iris Recognition System using Different Colour Channel Statistics",

Project Team: Asst. Prof. Dr. Hasan Demirel (Director),
Gholamreza Anbarjafari (Research Assistant).
Funding Body: Eastern Mediterranean University, Type A Project, (BAP-A-07-18)
Amount of Funding: 16,510 USD
Starting Date: 25/12/2007
Status: *Project Completed*