

Prof. GÖZDE AKAR

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAZ-8753-2020

ScopusID: 55662888100

Yoksis Researcher ID: 9225

Biography

Gozde Bozdagi Akar was born in Ankara, [Turkiye \(Turkey\)](#), in 1967. She received her B.S. degree from [Middle East Technical University](#), Ankara, Turkey, M.S. and Ph.D. degrees from [Bilkent University](#), Ankara, Turkey, in 1988, 1990 and 1994, respectively, all in electrical and electronics engineering. She was with the [University of Rochester](#) and Center of Electronic Imaging Systems as a visiting research associate from 1994 to 1996. From 1996 to 1998, she worked as a member of research and technical staff at [Xerox Corporation](#) - Digital Imaging Technology Center, Rochester. From 1998-1999 she was with Baskent University, Dept of Elec. and Electronics Eng. During the summer of 1999, she worked as a visiting researcher at the Multimedia Labs of NJIT. Currently, she is a full Professor with the Department of Electrical and Electronics Engineering, [Middle East Technical University](#). Her research interests are in video processing, transmission, embedded system design, hyperspectral image analysis, mutimodel data analysis.

She has been an [IEEE](#) student member from 1986-1994, an IEEE member from 1994-1998 and an IEEE senior member since then. She was the founder and the first chairperson of IEEE Bilkent Student Branch in 1990 which was the first student branch in Turkey. From 1990 to 1992, she served as the IEEE Region 8 student representative. In 1995, she was elected as the treasurer of IEEE Rochester Section Signal Processing Chapter where she became the vice chair in 1996 and chair in 1997. In 1998, she has been elected as the R8 Vice Chair, Student Activities and in November 1999 she has been elected as the IEEE RAB Vice Chair, Student Activites. From 2003 to 2005, and 2013 to 2015 she was the Turkey section chair. In 2006, she has been appointed as the Section Outreach Committee Chair of EAB. She also served in the Branding AdHoc Committee and RAB/TAB Transnational Committee during 1999. She has been awarded by "IEEE RAB Leadership Award" in 2001 and "IEEE Turkey Distinguished Service Award" in 2019.

Education Information

Doctorate, Ihsan Dogramaci Bilkent University, Institute Of Engineering And Natural Sciences, Elektrik-Elektronik Mühendisliği (Dr), Turkey 1990 - 1994

Postgraduate, Ihsan Dogramaci Bilkent University, Institute Of Engineering And Natural Sciences, Elektrik Ve Elektronik Mühendisliği (YI) (Tezli), Turkey 1988 - 1990

Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, Turkey 1984 - 1988

Foreign Languages

English, C1 Advanced

Research Areas

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

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2010 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 1999 - 2010

Academic and Administrative Experience

Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 2014 - 2015

Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 2008 - 2011

Advising Theses

Akar G., Attention-based object placement for image compositing, Postgraduate, A.ÇAĞLAR(Student), 2023

Akar G., Dental panoramic and bitewing X-ray image segmentation using U-net and transformer networks, Postgraduate, M.CAN(Student), 2023

AKAR G., Segmentation of multi class retinal lesions from fundus images, Postgraduate, E.KÜBRA(Student), 2022

AKAR G., Crowd counting, localization and anomaly detection with convLSTM based CNN using synthetic images, Postgraduate, M.FURKAN(Student), 2022

AKAR G., Debugging image classification algorithms using human assisted feedback, Postgraduate, K.BECEK(Student), 2022

AKAR G., FPM based partitioning and assignment algorithm for data parallel applications on heterogeneous platforms, Postgraduate, M.RAFAT(Student), 2022

AKAR G., Visual field testing using forecasting and virtual reality, Postgraduate, E.BÜLBÜL(Student), 2022

AKAR G., Lag compensation in cloud gaming, Postgraduate, A.OSMAN(Student), 2022

AKAR G., Analysis of dataset, object tag, and object attribute components in novel object captioning, Postgraduate, E.MUVAHHİD(Student), 2022

AKAR G., KÜLAH H., Automatic cell counting from microchannel images, Postgraduate, İ.FATİH(Student), 2022

AKAR G., Visible and infrared image fusion using encoder-decoder neural network, Postgraduate, F.CAN(Student), 2021

Akar G., Effect of quantization on the performance of deep networks, Postgraduate, B.KÜTÜKCÜ(Student), 2020

Akar G., Learning-Based Methods for Multi-Modal and Multi-Spectral Data, Doctorate, S.ÖZKAN(Student), 2020

Akar G., A comparative analysis of emerging video codecs, Postgraduate, O.KIVANÇ(Student), 2020

Akar G., EVALUATION OF DEEP LEARNING BASED MULTIPLE OBJECT TRACKERS, Postgraduate, O.MOURED(Student), 2020

Akar G., Hyperspectral data classification via capsule networks, Postgraduate, E.TOKER(Student), 2019

Akar G., Multi-feature fusion for GPR-based landmine detection and classification, Doctorate, A.GENÇ(Student), 2019

Akar G., Through the wall target detection using textural features, Postgraduate, E.GEDİK(Student), 2019

Akar G., Double network superresolution, Doctorate, C.TARHAN(Student), 2019

AKAR G., Automatic tests for camera performance analysis, Postgraduate, A.HASARPA(Student), 2018

AKAR G., Convolutional neural network based brain MRI segmentation, Postgraduate, B.BAYDAR(Student), 2018

AKAR G., A low cost learning based sign language recognition system, Postgraduate, A.HAKAN(Student), 2018

AKAR G., Automated image processing for scratch detection on specular surfaces, Postgraduate, V.OKBAY(Student), 2018

AKAR G., Buried wire detection using ground penetrating radars, Postgraduate, U.YILMAZ(Student), 2017

AKAR G., An application of inpainting-based still image reanimation, Postgraduate, E.SELİN(Student), 2017

AKAR G., Hyperspectral imagery super-resolution, Doctorate, H.IRMAK(Student), 2017

AKAR G., Forward-looking long-wave infrared image based prescreener for landmine detection, Postgraduate, A.BAYRAM(Student), 2017

AKAR G., Super resolution on Linux televisions, Postgraduate, A.EGE(Student), 2016

AKAR G., Use of probability hypothesis density filter for human activity recognition, Doctorate, E.ERDEM(Student), 2016

AKAR G., DRIVER AGGRESSIVENESS ANALYSIS USING MULTISENSORY DATA FUSION, Postgraduate, Ö.KUMTEPE(Student), 2016

AKAR G., An evaluation of ghost removal algorithms for exposure fusion, Postgraduate, T.KUTLU(Student), 2015

AKAR G., A robust quality metric for image super resolution, Postgraduate, Y.KİPMAN(Student), 2015

AKAR G., Face segmentation in thermal images /, Postgraduate, M.ERYILMAZ(Student), 2015

AKAR G., Robust quality metrics for assessing multimodal data, Doctorate, B.KONUK(Student), 2015

AKAR G., Sign language recognition by image analysis /, Postgraduate, B.BÜYÜKSARAÇ(Student), 2015

AKAR G., A Robust quality metric for image super resolution /, Postgraduate, Y.Kipman(Student), 2015

AKAR G., TEMİZEL A., GPU-enabled real-time panoramic background subtraction, Postgraduate, S.BÜYÜKSARAÇ(Student), 2015

AKAR G., Automatic vehicle detection and occlusion handling at road intersections, Postgraduate, B.ÜLKER(Student), 2015

AKAR G., Infrared face recognition, Postgraduate, U.KONUK(Student), 2015

AKAR G., Effects of atmospheric correction on vehicle classification with single and dual band infrared images, Doctorate, S.ÖZSARAÇ(Student), 2014

AKAR G., Content-based video copy detection /, Postgraduate, S.ÖZKAN(Student), 2014

AKAR G., AKYÜZ A. O., GPU based infrared signature modeling and scene simulation /, Postgraduate, Ç.KAVAK(Student), 2014

GENÇER N. G., AKAR G., A mass detection algorithm for mammogram images /, Postgraduate, M.YEŞİLKAYA(Student), 2014

AKAR G., Real-time single frame superresolution, Postgraduate, C.TARHAN(Student), 2014

AKAR G., Bayesian multi frame super resolution, Doctorate, E.Turgay(Student), 2014

AKAR G., A portable stereo-video streaming system, Postgraduate, E.ZERMAN(Student), 2013

AKAR G., FPGA implementation of license plate detection and recognition, Postgraduate, S.SARIKAVAK(Student), 2013

AKAR G., A fast shape detection approach by directional integrations, Doctorate, O.ERMAN(Student), 2013

AKAR G., Real-time traffic sign detection and recognition on FPGA, Postgraduate, H.YALÇIN(Student), 2013

AKAR G., Moving vehicle classification, Postgraduate, D.DUMAN(Student), 2013

AKAR G., Analysis and comparison of the contrast enhancement techniques for infrared images, Postgraduate, A.Ergün(Student), 2012

AKAR G., Stereo video broadcasting over DVB-H, Postgraduate, D.Buğdaycı(Student), 2012

AKAR G., Moving hot object detection in airborne thermal videos, Postgraduate, U.Kaba(Student), 2012

AKAR G., A Comparative evaluation of foreground / background segmentation algorithms, Postgraduate, M.Pakyürek(Student), 2012

BULUT M. M., AKAR G., A robust traffic sign recognition system, Postgraduate, H.Caner(Student), 2011

AKAR G., Evaluation of visual quality metrics, Postgraduate, R.Ferhat(Student), 2011

AKAR G., A comparative evaluation of super - resolution methods on color images, Postgraduate, F.Erbay(Student), 2011

AKAR G., Human activity analysis by gait recognition, Doctorate, B.KEPENEKÇİ(Student), 2011

AKAR G., Error concealment in 3d video, Postgraduate, S.Aydoğmuş(Student), 2011

AKAR G., Visual quality assessment for stereoscopic video sequences, Postgraduate, S.Sefa(Student), 2011

AKAR G., Implementation of a low-cost smart camera application on a cots system, Postgraduate, H.Kerem(Student), 2011

AKAR G., Image dynamic range enhancement, Postgraduate, S.Özyürek(Student), 2011

AKAR G., Human activity recognition by Gait Analysis, Doctorate, B.Kepenekci(Student), 2011

AKAR G., An FPGA implementation of real-time electro-optic & IR image fusion, Postgraduate, İ.Melih(Student), 2010

AKAR G., Robust transmission of 3D models, Doctorate, M.Oğuz(Student), 2010

AKAR G., Graduate school of natural and applied sciences : electrical and electronic engineering, Doctorate, A.Aksay(Student), 2010

BULUT M. M., AKAR G., Real time traffic sign recognition system on FPGA, Postgraduate, H.Irmak(Student), 2010

BULUT M. M., AKAR G., Hand gesture recognition system, Postgraduate, E.Gingir(Student), 2010

AKAR G., User directed view synthesis on omap processors, Postgraduate, M.Yıldız(Student), 2009

AKAR G., Video segmentation based on audio feature extraction, Postgraduate, N.Atar(Student), 2009

AKAR G., Hardware implementation of inverse transform & quantization and deblocking filter for low power H.264 decoder, Postgraduate, Ö.Önsay(Student), 2009

AKAR G., A framework for a personalized e-learning system, Doctorate, E.Özpolat(Student), 2009

AKAR G., Implementation of a distributed video codec, Postgraduate, C.Vedat(Student), 2008

AKAR G., Hardware implementation of an active feature tracker for surveillance applications, Postgraduate, B.Solmaz(Student), 2008

AKAR G., Color and shape based traffic sign detection, Postgraduate, E.Ulay(Student), 2008

AKAR G., Design and fpga implementation of an efficient deinterleaving algorithm, Postgraduate, M.Ertuğ(Student), 2008

AKAR G., Error resilient coding using flexible macroblock ordering in wired and wireless communications, Postgraduate, A.Murat(Student), 2008

AKAR G., A hybrid approach for full frame loss concealment of multiview video, Postgraduate, Ç.BİLEN(Student), 2007

AKAR G., Palmprint recognition based on 2-d gabor filters, Postgraduate, B.Konuk(Student), 2007

AKAR G., 2-d mesh-based motion estimation and video object manipulation, Postgraduate, H.Kaval(Student), 2007

AKAR G., Constructing panoramic scenes from aerial videos, Postgraduate, E.Erdem(Student), 2007

AKAR G., Quantization index modulation based watermarking using digital holography, Postgraduate, O.Erman(Student), 2006

AKAR G., Automatic eye tracking and intermediate view reconstruction for 3D imaging systems, Postgraduate, Y.Bediz(Student), 2006

AKAR G., Feature based modulation recognition for intrapulse modulations, Postgraduate, G.Çevik(Student), 2006

AKAR G., Fast intra/inter mode decision for a real-time H.264 streaming system, Postgraduate, Ö.Alay(Student), 2006

AKAR G., Design and implementation of a voltage source converter based statcom for reactive power compensation and harmonic filtering, Doctorate, E.Gürses(Student), 2006

AKAR G., Template based image watermarking in the fractional fourier domain, Postgraduate, T.Gökozan(Student), 2005

AKAR G., Textured motion analysis, Postgraduate, K.Öztekin(Student), 2005

AKAR G., MPEG-7 compliant ORDBMS based image storage and retrieval system, Postgraduate, K.Kerim(Student), 2004

AKAR G., System parameter adaptation based on image metrics for automatic target detection, Postgraduate, K.Kürekli(Student), 2004

AKAR G., Real-time video encoder on tmsc6000 platform, Postgraduate, B.Erdoğan(Student), 2004

AKAR G., Video segmentation using partially decoded MPEG bitstream, Postgraduate, I.Burcun(Student), 2003

AKAR G., Implementation of a wireless streaming system for universal multimedia access, Postgraduate, H.Ünsem(Student), 2003

AKAR G., Robust watermarking of images, Postgraduate, S.Eren(Student), 2003

Akar G., Implementation of a real-time video codec on a multi processor DSP architecture., Postgraduate, S.İnce(Student), 2002

Akar G., Implementation of the music algoritihm on a multiprocessor architecture, Postgraduate, M.Şengül(Student), 2002

Akar G., Congestion control in real-time digital video transmission over the internet, Postgraduate, A.Güler(Student), 2002

Bozdağı G., Motion wavelet video compression, Postgraduate, A.Aksay(Student), 2001

Bozdağı G., XML based image retrieval system, Postgraduate, T.Noyan(Student), 2000

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Cross-Modal Learning via Adversarial Loss and Covariate Shift for Enhanced Liver Segmentation**
Ozkan S., SELVER M. A., Baydar B., Kavur A. E., Candemir C., AKAR G.
IEEE Transactions on Emerging Topics in Computational Intelligence, vol.8, no.4, pp.2723-2735, 2024 (SCI-Expanded)
- II. **CHAOS Challenge- combined (CT-MR) healthy abdominal organ segmentation**
Kavur A. E., GEZER N. S., Baris M., ASLAN S., Conze P., Groza V., Duc Duy Pham D. D. P., Chatterjee S., Ernst P., Ozkan S., et al.
MEDICAL IMAGE ANALYSIS, vol.69, 2021 (SCI-Expanded)
- III. **Comparison of semi-automatic and deep learning-based automatic methods for liver segmentation in living liver transplant donors**
Kavur A. E., GEZER N. S., Baris M., Sahin Y., Ozkan S., Baydar B., Yuksel U., Kilikcier C., Olut S., AKAR G., et al.
DIAGNOSTIC AND INTERVENTIONAL RADIOLOGY, vol.26, no.1, pp.11-21, 2020 (SCI-Expanded)
- IV. **Combination of physics-based and image-based features for landmine identification in ground penetrating radar data**
Genc A., AKAR G.
JOURNAL OF APPLIED REMOTE SENSING, vol.13, no.2, 2019 (SCI-Expanded)
- V. **Convolutional neural networks analysed via inverse problem theory and sparse representations**
Tarhan C., Akar G.
IET SIGNAL PROCESSING, vol.13, no.2, pp.215-223, 2019 (SCI-Expanded)
- VI. **EndNet: Sparse AutoEncoder Network for Endmember Extraction and Hyperspectral Unmixing**
Ozkan S., Kaya B., Akar G. B.
IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING, vol.57, no.1, pp.482-496, 2019 (SCI-Expanded)
- VII. **A MAP-Based Approach for Hyperspectral Imagery Super-Resolution**
IRMAK H., Akar G., Yuksel S. E.
IEEE TRANSACTIONS ON IMAGE PROCESSING, vol.27, no.6, pp.2942-2951, 2018 (SCI-Expanded)
- VIII. **Driver aggressiveness detection via multisensory data fusion**
Kumtepe O., Akar G. B., Yuncu E.
EURASIP JOURNAL ON IMAGE AND VIDEO PROCESSING, 2016 (SCI-Expanded)
- IX. **Atmospheric Effects Removal for the Infrared Image Sequences**
Ozsarac S., AKAR G.
IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING, vol.53, no.9, pp.4899-4909, 2015 (SCI-Expanded)
- X. **Texture and edge preserving multiframe super-resolution**
Turgay E., AKAR G.
IET IMAGE PROCESSING, vol.8, no.9, pp.499-508, 2014 (SCI-Expanded)
- XI. **Joint source-channel coding for error resilient transmission of static 3D models**
Bici M. O., Norkin A., AKAR G.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.20, no.3, pp.391-412, 2012 (SCI-Expanded)
- XII. **Improved prediction methods for scalable predictive animated mesh compression**
Bici M. O., AKAR G.
JOURNAL OF VISUAL COMMUNICATION AND IMAGE REPRESENTATION, vol.22, no.7, pp.577-589, 2011 (SCI-Expanded)
- XIII. **Three-Dimensional Media for Mobile Devices**
Gotchev A., Akar G. B., Capin T., Strohmeier D., Boev A.
PROCEEDINGS OF THE IEEE, vol.99, no.4, pp.708-741, 2011 (SCI-Expanded)
- XIV. **Multiple description coding of animated meshes**
Bici M. O., AKAR G.
SIGNAL PROCESSING-IMAGE COMMUNICATION, vol.25, no.10, pp.729-744, 2010 (SCI-Expanded)
- XV. **Architectures for multi-threaded MVC-compliant multi-view video decoding and benchmark tests**

- Gurler C. G., Aksay A., Akar G. B., Tekalp A. M.
SIGNAL PROCESSING-IMAGE COMMUNICATION, vol.25, no.5, pp.325-334, 2010 (SCI-Expanded)
- XVI. **End-to-end stereoscopic video streaming with content-adaptive rate and format control**
Aksay A., Pehlivan S., Kurutepe E., Bilen C., OZCELEBİ T., Akar G. B., Civanlar M. R., Tekalp A. M.
SIGNAL PROCESSING-IMAGE COMMUNICATION, vol.22, no.2, pp.157-168, 2007 (SCI-Expanded)
- XVII. **Schemes for multiple description coding of stereoscopic video**
Norkin A., Aksay A., Bilen C., Akar G. B., Gotchev A., Astola J.
MULTIMEDIA CONTENT REPRESENTATION, CLASSIFICATION AND SECURITY, vol.4105, pp.730-737, 2006 (SCI-Expanded)
- XVIII. **A comparison on textured motion classification**
Oztekin K., Akar G. B.
MULTIMEDIA CONTENT REPRESENTATION, CLASSIFICATION AND SECURITY, vol.4105, pp.722-729, 2006 (SCI-Expanded)
- XIX. **Face verification competition on the XM2VTS database**
Messer K., Kittler J., Sadeghi M., Marcel S., Bengio S., Cardinaux F., Sanderson C., Czyz J., Vandendorpe L., et al.
Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), vol.2688, pp.964-974, 2003 (SCI-Expanded)
- XX. **NEW HIGH-RESOLUTION DISPLAY DEVICE FOR HOLOGRAPHIC 3-DIMENSIONAL VIDEO - PRINCIPLES AND SIMULATIONS**
ONURAL L., BOZDAGI G., ATALAR A.
OPTICAL ENGINEERING, vol.33, no.3, pp.835-844, 1994 (SCI-Expanded)

Articles Published in Other Journals

- I. **A video-based analysis of rhythmic accuracy and maintenance in junior tennis players**
Söğüt M., Ayser S., Akar G.
Pamukkale Spor Bilimleri Dergisi, vol.8, no.2, pp.73-78, 2017 (Peer-Reviewed Journal)
- II. **Motion wavelet compression**
Aksay A., AKAR G., Akhan M., Temizel A., Duhamel P.
IEE Colloquium (Digest), no.19, pp.169-172, 2000 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **Longitudinal Mammogram Risk Prediction**
Karaman B. K., Dodelzon K., AKAR G., Sabuncu M. R.
27th International Conference on Medical Image Computing and Computer-Assisted Intervention, MICCAI 2024, Marrakush, Morocco, 6 - 10 October 2024, vol.15005 LNCS, pp.437-446
- II. **Otomatik Meibomian Bezi ve Göz Kapağı Bölütlemesi**
Diribaş Ö., Okbay V., Akça O., Bilgiç Ö. M., YEŞİLIRMAK N., AKAR G.
32nd IEEE Conference on Signal Processing and Communications Applications, SIU 2024, Mersin, Turkey, 15 - 18 May 2024
- III. **RICOA: Rich Captioning with Object Attributes**
Sahin E. M., AKAR G.
2024 IEEE International Conference on Consumer Electronics, ICCE 2024, Nevada, United States Of America, 6 - 08 January 2024
- IV. **Crowd Multi Prediction: Single Network for Crowd Counting, Localization and Anomaly Detection**
Coskun M. F., AKAR G.
2023 IEEE International Conference on Consumer Electronics, ICCE 2023, Nevada, United States Of America, 6 - 08

January 2023, vol.2023-January

- V. **The Effect of Virtual Reality and Prediction in Visual Field Test Görme Alanı Testinde Sanal Gerçeklik ve Öngörmenin Etkisi**
Bulbul E., AKAR G.
30th Signal Processing and Communications Applications Conference, SIU 2022, Safranbolu, Turkey, 15 - 18 May 2022
- VI. **Exploiting Local Indexing and Deep Feature Confidence Scores for Fast Image-to-Video Search**
Ozkan S., AKAR G.
25th International Conference on Pattern Recognition (ICPR), ELECTR NETWORK, 10 - 15 January 2021, pp.4926-4932
- VII. **VISIBLE AND INFRARED IMAGE FUSION USING ENCODER-DECODER NETWORK**
Ataman F. C., AKAR G.
2021 IEEE International Conference on Image Processing, ICIP 2021, Alaska, United States Of America, 19 - 22 September 2021, vol.2021-September, pp.1779-1783
- VIII. **Binarized Weight Networks for Inverse Problems**
Ozkan S., Becek K., Inci A., Kutukcu B., Ugurcali F., Kaya M. C., AKAR G.
28th Signal Processing and Communications Applications Conference (SIU), ELECTR NETWORK, 5 - 07 October 2020
- IX. **Dental X-ray Image Segmentation using Octave Convolution Neural Network**
Kaya M. C., AKAR G.
28th Signal Processing and Communications Applications Conference (SIU), ELECTR NETWORK, 5 - 07 October 2020
- X. **Hyperspectral Data to Relative Lidar Depth: An Inverse Problem for Remote Sensing**
AKAR G., Özkan S.
Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition Workshops, 13 - 15 July 2019
- XI. **Effect of Visual Context Information for Super Resolution Problems**
Aykut E., Becek K., Cengiz B., Ozkan S., AKAR G.
27th Signal Processing and Communications Applications Conference (SIU), Sivas, Turkey, 24 - 26 April 2019
- XII. **Automated Image Processing for Scratch Detection on Specular Surfaces**
Okbay V., Akar G., Yaman U.
International Conference and Exhibition on Digital Transformation and Smart Systems, Ankara, Turkey, 24 - 26 October 2018
- XIII. **Deep Spectral Convolution Network for Hyperspectral Unmixing**
AKAR G., ÖZKAN S.
IEEE International Conf on Image Processing, Greece, 7 - 10 October 2018, pp.3313-3317
- XIV. **Image Fusion for Hyperspectral Image Super-resolution**
Irmak H., AKAR G., YÜKSEL S. E.
IEEE Workshop on Hyperspectral Image and Remote Sensing (Whispers), 23 - 26 September 2018
- XV. **Automatic color accuracy tests for camera performance comparison**
HASARPA A., AKAR G.
26. IEEE Sinyal İşleme ve İletişim Uygulamaları (SIU 2018) Kurultayı, İzmir, Turkey, 2 - 05 May 2018
- XVI. **A comparison of inpainting techniques in image reanimation**
BÖNCÜ E. S., AKAR G.
26. IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı, İzmir, Turkey, 02 May 2019 - 05 May 2018
- XVII. **A GPR-based landmine identification method using energy and dielectric features**
AKAR G., GENÇ a.
SPIE DEFENSE, Orlando, United States Of America, 10 - 14 April 2018
- XVIII. **Relaxed Spatio-Temporal Deep Feature Aggregation for Real-Fake Expression Prediction**
Ozkan S., AKAR G.
16th IEEE International Conference on Computer Vision (ICCV), Venice, Italy, 22 - 29 October 2017, pp.3094-3100
- XIX. **Fusion based resolution enhancement in hyperspectral images Hiperspektral Görüntülerde**

Kaynaştırma Temelli Çözünürlük Artırımı

IRMAK H., AKAR G., YUKSEL S. E.

25th Signal Processing and Communications Applications Conference, SIU 2017, Antalya, Turkey, 15 - 18 May 2017

- XX. **Forward-Looking Infrared Imagery for Landmine Detection**
Bayram A., Akar G. B.
Conference on Infrared Technology and Applications XLIII, California, United States Of America, 9 - 13 April 2017, vol.10177
- XXI. **Radiometric Features for Vehicle Classification with Infrared Images**
Ozsarac S., Akar G. B.
Conference on Automatic Target Recognition XXVII, California, United States Of America, 10 - 11 April 2017, vol.10202
- XXII. **KLMS based prescreener approach on landmine detection and fusion with various types of prescreener algorithms (Fusion of KLMS and Blob Based Pre-Screener for Buried Land Mine Detection Using Ground Penetrating Radar)**
baydar b., AKAR G., YÜKSEL S. E., öztürk s.
SPIE DEFENSE, 17 - 19 April 2016
- XXIII. **SUPER-RESOLUTION RECONSTRUCTION OF HYPERSPECTRAL IMAGES VIA AN IMPROVED MAP-BASED APPROACH**
Irmak H., AKAR G., Yuksel S. E., Aytaylan H.
36th IEEE International Geoscience and Remote Sensing Symposium (IGARSS), Beijing, China, 10 - 15 July 2016, pp.7244-7247
- XXIV. **Super Resolution Reconstruction Of Hyperspectral Images Via An Improved Map Based Approach**
Irmak H., YÜKSEL S. E., AKAR G., aytaylan h.
IEEE International Geoscience and Remote Sensing Symposium, 10 - 15 July 2016
- XXV. **GPU Based Infrared Signature Modeling and Scene Simulation**
Kavak Ç., AKAR G.
The 11th International IR Target and Background Modeling & Simulation Workshop, 27 - 30 June 2016
- XXVI. **Video Content Analysis Method for Audiovisual Quality Assessment**
Konuk B., Zerman E., NUR YILMAZ G., Akar G. B.
8th International Conference on Quality of Multimedia Experience (QoMEX), Lisbon, Portugal, 6 - 08 June 2016
- XXVII. **A Multimodal Approach for Aggressive Driving Detection**
Kumtepe O., Yuncu E., AKAR G.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.729-732
- XXVIII. **Hyperspectral Imagery Superresolution**
Irmak H., AKAR G., Yuksel S. E.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.1057-1060
- XXIX. **Sign Language Recognition By Image Analysis**
Buyuksarac B., Bulut M. M., Akar G. B.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.417-420
- XXX. **A Novel Adaptive Pre Screener For Ground Penetrating Radar**
Baydar B., AKAR G.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.1229-1232
- XXXI. **Real time panoramic background subtraction on GPU**
BÜYÜKSARAÇ S., AKAR G., TEMİZEL A.
2016 24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, Turkey, 16 - 19 May 2016
- XXXII. **Feasible Local Content Representation For Image In Video Search On Large Video Collection**

Özkan S., Esen E., AKAR G.

Sinyal İşleme ve Uygulamaları Kurultayı, Turkey, 16 - 19 May 2016

- XXXIII. **Fusion of KLMS and Blob Based Pre-Screener for Buried Landmine Detection Using Ground Penetrating Radar**
Baydar B., AKAR G., Yuksel S. E., Ozturk S.
Conference on Detection and Sensing of Mines, Explosive Objects, and Obscured Targets XXI, Maryland, United States Of America, 18 - 21 April 2016, vol.9823
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- XXXV. **VISUAL AND TEXTUAL FEATURE FUSION FOR AUTOMATIC CUSTOMS TARIFF CLASSIFICATION**
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- XXXVI. **A MAP-BASED APPROACH TO RESOLUTION ENHANCEMENT OF HYPERSPECTRAL IMAGES**
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- XL. **Effects of Tempo on Rhythmic Accuracy and Maintenance**
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- XLI. **A Novel Tool for Evaluating Rhythmic Ability**
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- XLII. **Fusion of forward-looking infrared camera and down-looking ground penetrating radar for buried target detection**
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- LII. TEXTURE PRESERVING MULTI FRAME SUPER RESOLUTION WITH SPATIALLY VARYING IMAGE PRIOR**
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- LIII. Optimized Transmission of 3D Video over DVB-H Channel**
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- LVI. IMPROVED PREDICTION FOR LAYERED PREDICTIVE ANIMATED MESH COMPRESSION**
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- LVII. MOBILE 3D VIDEO BROADCAST**
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- LXIII. **MULTI-THREADED ARCHITECTURES AND BENCHMARK TESTS FOR REAL-TIME MULTI-VIEW VIDEO DECODING**
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- LXIV. **VERTEX PARTITIONING BASED MULTIPLE DESCRIPTION CODING OF 3D DYNAMIC MESHES**
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- LXVII. **DISTRIBUTED 3D DYNAMIC MESH CODING**
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- LXX. **Error resilient layered stereoscopic video streaming**
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- LXXI. **Optimal packet scheduling and rate control for video streaming**
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- LXXIII. **A multi-view video codec based on H.264**
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- LXXV. **End-to-end stereoscopic video streaming system**
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- LXXVI. **Towards compound stereo-video quality metric: a specific encoder-based framework**
Boev A., Gotchev A., Egiazarian K., Aksay A., Akar G. B.
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- LXXVII. **E-museum: Web-based tour and information system for museums**
Bastanlar Y., ALTINGÖVDE İ. S., Aksay A., Alav O., Cavus O., Yardimci Y., Ulusoy O., Gudukbay U., Cetin E., AKAR G., et al.
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- LXXVIII. **Evaluation of disparity map characteristics for stereo image coding**
Aksay A., Bici M., Akar G.
IEEE International Conference on Image Processing (ICIP 2005), Genoa, Italy, 11 - 14 September 2005, pp.1801-1804
- LXXIX. **Face classification with support vector machine**
Kepenekci B., Akar G.
IEEE 12th Signal Processing and Communications Applications Conference, Kusadasi, Turkey, 28 - 30 April 2004, pp.583-586
- LXXX. **Implementation of a wireless streaming system for universal multimedia access**
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- LXXXI. **GAYE: A face recognition system**
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Conference on Image Processing - Algorithms and Systems III, San-Jose, Costa Rica, 19 - 21 January 2004, vol.5298, pp.99-106
- LXXXII. **Impact of scalability in video transmission in promotion-capable differentiated services networks**
Gurses E., Akar G., Akar N.
IEEE International Conference on Image Processing, New-York, United States Of America, 22 - 25 September 2002, pp.753-756
- LXXXIII. **Occluded face recognition based on Gabor wavelets**
Kepenekci B., Tek F., Akar G.
IEEE International Conference on Image Processing, New-York, United States Of America, 22 - 25 September 2002, pp.293-296

Supported Projects

SERİNAĞAOĞLU DOĞRUSÖZ Y., AKAR G., TÜBİTAK International Bilateral Joint Cooperation Program Project, Elektrokardiyografik Görüntülemenin Klinik Verilerden Prematüre Ventriküler Kasılma Odaklarının Tespitinde Performansının Değerlendirilmesi, 2021 - 2024

Gökler M. I., Akar G., Yaman U., Köksal G., Eren P. E., Ertekin Bolelli Ş., Gürbüz T., Erdil E., AB IPA Project, MIDDLE EAST TECHNICAL UNIVERSITY DIGITAL INNOVATION CENTER, 2021 - 2024

Akar G., Company, Yeraltı Nüfus Eden Radar Tespiti, 2019 - 2022

Akar G., Industrial Organizations of Other Countries Supported Project, Architecture and performance Benchmarking, 2019 - 2020

AKAR G., BÖNCÜ E. S., Project Supported by Higher Education Institutions, Kameralı güvenlik sistemleri için kalite ölçümü, 2018 - 2019

Alatan A. A., Kamışlı F., Akyüz A. O., Temizel A., Halıcı U., Ulusoy İ., Saranlı A., Akar G., Böncü E. S., Çakırgöz Ç. C., Project Supported by Defense Industry, Kent Güvenlik Yönetim Sistemleri için Bilişsel Kamera Geliştirilmesi Projesi , 2018 - 2019

Tasks In Event Organizations

Akar G., IEEE International Conference on Image Processing, Scientific Congress, Abu Dhabi, United Arab Emirates, Ekim 2020

Metrics

Publication: 114

Citation (WoS): 913

Citation (Scopus): 1575

H-Index (WoS): 15

H-Index (Scopus): 18

Invited Talks

Women in Data Science / Multimodal Data Analysis, Conference, Sabancı Univ, Turkey, May 2022

Awards

Akar G., Sayan G., SCI Panel Excellence Award, Nato, June 2022

Akar G., IEEE Türkiye Şubesi Üstün Hizmet Ödülü, Ieee, December 2019

Akar G., IEEE RAB Leadership Award, Ieee, September 2001

Non Academic Experience

TÜBİTAK

Başkent Üniv

Xerox

University of Rochester