

## Prof. EMRE AKTAŞ

### Personal Information

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### International Researcher IDs

ORCID: 0000-0002-9349-2432

ScopusID: 7003508720

Yoksis Researcher ID: 182401

### Education Information

Doctorate, Ohio State University, Electrical Engineering, United States Of America 1998 - 2002

Postgraduate, Ohio State University, Electrical Engineering, United States Of America 1996 - 1998

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, Turkey 1992 - 1996

### Foreign Languages

English, C1 Advanced

### Research Areas

Electrical and Electronics Engineering, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2010 - Continues

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2005 - 2010

Lecturer, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2004 - 2005

### Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Coverage Analysis of IRS-Aided Millimeter-Wave Networks: A Practical Approach**  
Etcibasi A. Y., AKTAŞ E.  
IEEE Transactions on Wireless Communications, vol.23, no.4, pp.3721-3734, 2024 (SCI-Expanded)
- II. **Downlink Performance of MU-MIMO-FBMC in Power Amplifier Nonlinearity**  
Kayikci U., AKTAŞ E.  
IEEE Wireless Communications Letters, vol.13, no.1, pp.198-202, 2024 (SCI-Expanded)
- III. **On the design considerations of solid-state power amplifiers for satellite communications: A systems perspective**

Öncü E., Tutgun R., AKTAŞ E.

International Journal of Satellite Communications and Networking, vol.41, no.6, pp.589-598, 2023 (SCI-Expanded)

- IV. **A Markovian Analysis of Cooperative ARQ with Random Access**  
Tutgun R., AKTAŞ E.  
WIRELESS PERSONAL COMMUNICATIONS, vol.123, no.4, pp.3201-3211, 2022 (SCI-Expanded)
- V. **Cooperative Network Coded ARQ Strategies for Two-Way Relay Channels**  
Tutgun R., AKTAŞ E.  
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.64, no.7, pp.3205-3217, 2015 (SCI-Expanded)
- VI. **Error Rate Analysis of GF(q) Network Coded Detect-and-Forward Wireless Relay Networks Using Equivalent Relay Channel Models**  
Safak I., AKTAŞ E., YILMAZ A. Ö.  
IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS, vol.12, no.8, pp.3908-3919, 2013 (SCI-Expanded)
- VII. **Practical Methods for Wireless Network Coding With Multiple Unicast Transmissions**  
Aktas T., YILMAZ A. Ö., AKTAŞ E.  
IEEE TRANSACTIONS ON COMMUNICATIONS, vol.61, no.3, pp.1123-1133, 2013 (SCI-Expanded)
- VIII. **Iterative Message Passing for Pilot-Assisted Multiuser Detection in MC-CDMA Systems**  
Aktas E.  
IEEE TRANSACTIONS ON COMMUNICATIONS, vol.60, no.11, pp.3353-3364, 2012 (SCI-Expanded)
- IX. **Impact of carrier frequency offset on the capacity of MIMO-OFDM systems**  
Tutgun R., AKTAŞ E.  
TRANSACTIONS ON EMERGING TELECOMMUNICATIONS TECHNOLOGIES, vol.23, no.7, pp.625-631, 2012 (SCI-Expanded)
- X. **Belief Propagation with Gaussian Priors for Pilot-Assisted Communication over Fading ISI Channels**  
Aktas E.  
IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS, vol.8, no.4, pp.2056-2066, 2009 (SCI-Expanded)
- XI. **Distributed decoding in a cellular multiple-access channel**  
Aktas E., Evans J., Hanly S.  
IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS, vol.7, no.1, pp.241-250, 2008 (SCI-Expanded)
- XII. **Optimal space-frequency group codes for MIMO-OFDM system**  
Chen Y., Aktas E., Tureli U.  
IEEE TRANSACTIONS ON COMMUNICATIONS, vol.54, no.3, pp.553-562, 2006 (SCI-Expanded)
- XIII. **Complexity reduction in subspace-based blind channel identification for DS/CDMA systems**  
Aktas E., Mitra U.  
IEEE TRANSACTIONS ON COMMUNICATIONS, vol.48, no.8, pp.1392-1404, 2000 (SCI-Expanded)

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **The Relation Between Isotropy of Waveforms and Interference Cancellation Method for OFDM/OQAM**  
Kayikci U., AKTAŞ E.  
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- II. **Low Complexity Receivers For Continuous Phase Modulation**  
Sen C., AKTAŞ E.  
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- III. **A Comparison among Interference Approximation Methods for OFDM/OQAM**  
Kayikci U., AKTAŞ E.  
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- IV. **Performance Analysis of Beamforming Techniques in MU-MIMO Systems with Residual RF Impairments**  
Tamer U., SUNU C., AKTAŞ E., YILMAZ A. Ö.

23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.1631-1634

- V. **Cooperative Network Coded ARQ Strategy for Broadcast Networks**  
Tutgun R., AKTAŞ E.  
IEEE International Conference on Communications (ICC), London, Canada, 8 - 12 June 2015, pp.1819-1824
- VI. **Adaptive Modulation and Coding (AMC) in Cooperative Communication Channels**  
SUNU C., AKTAŞ E.  
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.1571-1574
- VII. **COOPERATIVE HYBRID ARQ NETWORKS**  
ÖZKAN İ., AKTAŞ E.  
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.1710-1713
- VIII. **Generalizing the Sampling Property of the Q-function for Error Rate Analysis of Cooperative Communication in Fading Channels-**  
Aktas T., YILMAZ A. Ö., Aktas E.  
IEEE International Symposium on Information Theory (ISIT), İstanbul, Turkey, 7 - 12 July 2013, pp.46-47
- IX. **Cooperative Network-Coded Automatic Repeat Request in Two-Way Relay Channel**  
Tutgun R., AKTAŞ E.  
21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013
- X. **Analysis of the Performance of Network Coding Using the Sampling Property of Q-function**  
Aktas T., YILMAZ A. Ö., AKTAŞ E.  
21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013
- XI. **Performance Comparisons of Relaying Schemes in Bi-directional Demodulate-and-Forward Channels**  
ÖZDEMİR Ö., YILMAZ A. Ö., Aktas E.  
IEEE Wireless Communications and Networking Conference (WCNC), Paris, France, 1 - 04 April 2012, pp.2940-2944
- XII. **A Message Passing Approach to Pilot-assisted Multiuser Detection in MC-CDMA Systems**  
Aktas E.  
IEEE Global Telecommunications Conference (GLOBECOM 2010), Florida, United States Of America, 6 - 10 December 2010
- XIII. **Pilot-Aided Multiuser Detection in CDMA Using the Belief Propagation Algorithm**  
Karabakal I. C., AKTAŞ E.  
IEEE 16th Signal Processing and Communications Applications Conference, Aydın, Turkey, 20 - 22 April 2008, pp.197-200
- XIV. **On the sum-capacity of pilot-assisted CDMA over fast varying channels**  
Tutgun R., AKTAŞ E.  
IEEE Pacific Rim Conference on Communications, Computers and Signal Processing, Victoria, Canada, 22 - 24 August 2007, pp.94-97
- XV. **TEC statistics and correlogram applications**  
Tuerel N., AKTAŞ E., ARIKAN F.  
IEEE 15th Signal Processing and Communications Applications Conference, Eskişehir, Turkey, 11 - 13 June 2007, pp.692-695
- XVI. **Effect of channel parameter mismatch on the performance of the belief propagation algorithm**  
Aktas E.  
IEEE 15th Signal Processing and Communications Applications Conference, Eskişehir, Turkey, 11 - 13 June 2007, pp.100-103
- XVII. **Distributed Base Station Processing in the Uplink of Cellular Networks**  
AKTAŞ E., Evans J., Hanly S.  
IEEE International Conference on Communications (ICC 2006), İstanbul, Turkey, 11 - 15 June 2006, pp.1641-1646
- XVIII. **Pilot-Assisted Communication Over ISI Channels Based on the Belief Propagation Algorithm**

Aktas E.

IEEE Global Telecommunications Conference (GLOBECOM 06), San-Francisco, Costa Rica, 27 November - 01 December 2006

## Supported Projects

SAKA TANATAR B., KUMBAY YILDIZ Ş., ÖZGÜN Ö., AKTAŞ E., YILMAZ A., BULU G., Project Supported by Higher Education Institutions, Elektrik ve Elektronik Mühendisliği Bölümünün ABET Akreditasyonu, 2017 - 2022

AKTAŞ E., YILMAZ A., BULU G., ÖZGÜN Ö., Project Supported by Higher Education Institutions, Elektrik ve Elektronik Mühendisliği Bölümünün ABET Akreditasyonuna Başvurması, 2015 - 2018

AKTAŞ E., Project Supported by Higher Education Institutions, Tümeayım Ağlarda İşbirlikli Ağ Kodlamalı Yeniden Gönderim Stratejileri, 2015 - 2017

## Metrics

Publication: 31

Citation (WoS): 125

Citation (Scopus): 121

H-Index (WoS): 6

H-Index (Scopus): 6

## Non Academic Experience

Hacettepe Üniversitesi

University of Melbourne

Stevens Institute of Technology