

## Prof. Dr. EMRE AKTAŞ

### Kişisel Bilgiler

İş Telefonu: [+90 312 297 6089](tel:+903122976089)

E-posta: [aktas@hacettepe.edu.tr](mailto:aktas@hacettepe.edu.tr)

Web: <https://avesis.hacettepe.edu.tr/aktas>

### Uluslararası Araştırmacı ID'leri

ORCID: 0000-0002-9349-2432

ScopusID: 7003508720

Yoksis Araştırmacı ID: 182401

### Eğitim Bilgileri

Doktora, Ohio State University, Electrical Engineering, Amerika Birleşik Devletleri 1998 - 2002

Yüksek Lisans, Ohio State University, Electrical Engineering, Amerika Birleşik Devletleri 1996 - 1998

Lisans, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Elektrik Ve Elektronik Mühendisliği Bölümü, Türkiye 1992 - 1996

### Yabancı Diller

İngilizce, C1 İleri

### Araştırma Alanları

Elektrik-Elektronik Mühendisliği, Mühendislik ve Teknoloji

### Akademik Unvanlar / Görevler

Doç. Dr., Hacettepe Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2010 - Devam Ediyor

Yrd. Doç. Dr., Hacettepe Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2005 - 2010

Öğretim Görevlisi, Hacettepe Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2004 - 2005

### SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- Coverage Analysis of IRS-Aided Millimeter-Wave Networks: A Practical Approach**  
Etcibasi A. Y., AKTAŞ E.  
IEEE Transactions on Wireless Communications, cilt.23, sa.4, ss.3721-3734, 2024 (SCI-Expanded)
- Downlink Performance of MU-MIMO-FBMC in Power Amplifier Nonlinearity**  
Kayıkci U., AKTAŞ E.  
IEEE Wireless Communications Letters, cilt.13, sa.1, ss.198-202, 2024 (SCI-Expanded)
- 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, cilt.41, sa.6, ss.589-598, 2023 (SCI-Expanded)
- IV. **A Markovian Analysis of Cooperative ARQ with Random Access**  
Tutgun R., AKTAŞ E.  
WIRELESS PERSONAL COMMUNICATIONS, cilt.123, sa.4, ss.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, cilt.64, sa.7, ss.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, cilt.12, sa.8, ss.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, cilt.61, sa.3, ss.1123-1133, 2013 (SCI-Expanded)
  - VIII. **Iterative Message Passing for Pilot-Assisted Multiuser Detection in MC-CDMA Systems**  
Aktas E.  
IEEE TRANSACTIONS ON COMMUNICATIONS, cilt.60, sa.11, ss.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, cilt.23, sa.7, ss.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, cilt.8, sa.4, ss.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, cilt.7, sa.1, ss.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, cilt.54, sa.3, ss.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, cilt.48, sa.8, ss.1392-1404, 2000 (SCI-Expanded)

## **Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar**

- I. **The Relation Between Isotropy of Waveforms and Interference Cancellation Method for OFDM/OQAM**  
Kayıkci U., AKTAŞ E.  
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Türkiye, 2 - 05 Mayıs 2018
- II. **Low Complexity Receivers For Continuous Phase Modulation**  
Sen C., AKTAŞ E.  
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Türkiye, 2 - 05 Mayıs 2018
- III. **A Comparison among Interference Approximation Methods for OFDM/OQAM**  
Kayıkci U., AKTAŞ E.  
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Türkiye, 15 - 18 Mayıs 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, Türkiye, 16 - 19 Mayıs 2015,

ss.1631-1634

- V. **Cooperative Network Coded ARQ Strategy for Broadcast Networks**  
Tutgun R., AKTAŞ E.  
IEEE International Conference on Communications (ICC), London, Kanada, 8 - 12 Haziran 2015, ss.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, Türkiye, 23 - 25 Nisan 2014, ss.1571-1574
- VII. **COOPERATIVE HYBRID ARQ NETWORKS**  
ÖZKAN İ., AKTAŞ E.  
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Türkiye, 23 - 25 Nisan 2014, ss.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, Türkiye, 7 - 12 Temmuz 2013, ss.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 Nisan 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 Nisan 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, Fransa, 1 - 04 Nisan 2012, ss.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, Amerika Birleşik Devletleri, 6 - 10 Aralık 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, Türkiye, 20 - 22 Nisan 2008, ss.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, Kanada, 22 - 24 Ağustos 2007, ss.94-97
- XV. **TEC statistics and correlogram applications**  
Tuerel N., AKTAŞ E., ARIKAN F.  
IEEE 15th Signal Processing and Communications Applications Conference, Eskişehir, Türkiye, 11 - 13 Haziran 2007, ss.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, Türkiye, 11 - 13 Haziran 2007, ss.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, Türkiye, 11 - 15 Haziran 2006, ss.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, Kostarika, 27 Kasım - 01 Aralık 2006

## Desteklenen Projeler

SAKA TANATAR B., KUMBAY YILDIZ Ş., ÖZGÜN Ö., AKTAŞ E., YILMAZ A., BULU G., Yükseköğretim Kurumları Destekli Proje, Elektrik ve Elektronik Mühendisliği Bölümünün ABET Akreditasyonu, 2017 - 2022

AKTAŞ E., YILMAZ A., BULU G., ÖZGÜN Ö., Yükseköğretim Kurumları Destekli Proje, Elektrik ve Elektronik Mühendisliği Bölümünün ABET Akreditasyonuna Başvurması, 2015 - 2018

AKTAŞ E., Yükseköğretim Kurumları Destekli Proje, Tümeayım Ağlarda İşbirlikli Ağ Kodlamalı Yeniden Gönderim Stratejileri, 2015 - 2017

## Metrikler

Yayın: 31

Atıf (WoS): 125

Atıf (Scopus): 121

H-İndeks (WoS): 6

H-İndeks (Scopus): 6

## Akademi Dışı Deneyim

Hacettepe Üniversitesi

University of Melbourne

Stevens Institute of Technology