

Prof. EMRE AKTAŞ

Personal Information

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International Researcher IDs

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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