

## Prof.Dr. CENK TOKER

### Kişisel Bilgiler

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### Eğitim Bilgileri

Doktora, University Of London-Kings College London, Division Of Engineering, Centre For Digital Signal Processing Research, İngiltere 2002 - 2004

Yüksek Lisans, Orta Doğu Teknik Üniversitesi, Risk Analizi A.B.D., Elektrik Ve Elektronik Müh.Böl., Telekomünikasyon A.B.D., Türkiye 1995 - 1999

Lisans, Hacettepe Üniversitesi, Mühendislik Fakültesi, Elektrik Ve Elektronik Müh.Böl., Türkiye 1991 - 1995

### Yabancı Diller

İngilizce, C1 İleri

### Araştırma Alanları

Atmosfer Bilimleri ve Meteoroloji Mühendisliği, Bilgi Sistemleri, Haberleşme ve Kontrol Mühendisliği, Haberleşme Mühendisliği, Kablosuz İletişim, Modülasyon (Kipleme) Yöntemleri, Haberleşme Uygulamaları, Sinyal İşleme, Haberleşme için Sinyal İşleme, Mühendislik ve Teknoloji

### Akademik İdari Deneyim

Hacettepe Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2006 - Devam Ediyor

Hacettepe Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2007 - 2010

### Verdiği Dersler

ELE 450 Kablosuz İletişimin Temelleri, Lisans, 2017 - 2018

ELE 324 İletişim Kuramı I, Lisans, 2016 - 2017, 2017 - 2018

ELE 604 OPTİMİZASYON, Yüksek Lisans, 2017 - 2018

ELE 630 SAYISAL İLETİŞİM I, Yüksek Lisans, 2016 - 2017, 2017 - 2018

ELE 492 ÖZEL KONULAR II, Lisans, 2016 - 2017

ELE 407 Sayısal Sinyal İşleme, Lisans, 2016 - 2017

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

- I. **Rate maximizing OFDM parameter optimization on HF channels**  
Ozdil O., TOKER C.  
PHYSICAL COMMUNICATION, cilt.45, 2021 (SCI İndekslerine Giren Dergi)
- II. **Interference-aware resource allocation for multi-tier uplink NOMA under feedback constraints**  
YÜKSEKKAYA B., TOKER C.  
PHYSICAL COMMUNICATION, cilt.35, 2019 (SCI İndekslerine Giren Dergi)
- III. **Power and Interference Regulated Water-Filling for Multi-Tier Multi-Carrier Interference Aware Uplink**  
YÜKSEKKAYA B., TOKER C.  
IEEE WIRELESS COMMUNICATIONS LETTERS, cilt.7, sa.4, ss.494-497, 2018 (SCI İndekslerine Giren Dergi)
- IV. **Observation of the solar eclipse of 20 March 2015 at the Pruhonice station**  
MOŠNA Z., BOŠKA J., KNÍŽOVÁ P. K., Sindelafova T., KOUBA D., CHUM J., REJFEK L., POTUŽNÍKOVÁ K., ARIKAN F., TOKER C.  
JOURNAL OF ATMOSPHERIC AND SOLAR-TERRESTRIAL PHYSICS, cilt.171, ss.277-284, 2018 (SCI İndekslerine Giren Dergi)
- V. **Antenna Port Selection in a Coordinated Cloud Radio Access Network**  
BULU G., Ahmad T., Gohary R. H., TOKER C., Yanikomeroğlu H.  
IEEE COMMUNICATIONS LETTERS, cilt.21, sa.3, ss.588-591, 2017 (SCI İndekslerine Giren Dergi)
- VI. **Joint transceiver FIR filter design for multiuser MIMO channel shortening equalization and full equalization using channel duality**  
YÜKSEKKAYA B., TOKER C.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.25, sa.5, ss.4077-4090, 2017 (SCI İndekslerine Giren Dergi)
- VII. **Suboptimal recursive optimisation framework for adaptive resource allocation in spectrum-sharing networks**  
Rahulamathavan Y., Lambbotharan S., TOKER C., GERSHMAN A. B.  
IET SIGNAL PROCESSING, cilt.6, sa.1, ss.27-33, 2012 (SCI İndekslerine Giren Dergi)
- VIII. **Blind, Adaptive Channel Shortening Equalizer Algorithm Which Can Provide Shortened Channel State Information (BACS-SI)**  
TOKER C., ALTIN G.  
IEEE TRANSACTIONS ON SIGNAL PROCESSING, cilt.57, sa.4, ss.1483-1493, 2009 (SCI İndekslerine Giren Dergi)
- IX. **Joint transceiver design for MIMO channel shortening**  
Toker C., LAMBOTHARAN S., CHAMBERS J. A.  
IEEE TRANSACTIONS ON SIGNAL PROCESSING, cilt.55, sa.7, ss.3851-3866, 2007 (SCI İndekslerine Giren Dergi)
- X. **Closed-loop space time block coding techniques for OFDM based broadband wireless access systems**  
LAMBOTHARAN S., Toker C.  
IEEE TRANSACTIONS ON CONSUMER ELECTRONICS, cilt.51, sa.3, ss.765-769, 2005 (SCI İndekslerine Giren Dergi)
- XI. **Joint spatial and temporal channel-shortening techniques for frequency selective fading MIMO channels**  
Toker C., LAMBOTHARAN S., CHAMBERS J., BAYKAL B.  
IEE PROCEEDINGS-COMMUNICATIONS, cilt.152, sa.1, ss.89-94, 2005 (SCI İndekslerine Giren Dergi)
- XII. **Closed-loop quasi-orthogonal STBCs and their performance in multipath fading environments and when combined with turbo codes**  
Toker C., LAMBOTHARAN S., CHAMBERS J.  
IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS, cilt.3, sa.6, ss.1890-1896, 2004 (SCI İndekslerine Giren Dergi)

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

- I. **Energy-efficient rotary-wing UAV deployment under flight dynamics and QoS constraints**

DEMİR U., İpek M. C. , TOKER C., EKİCİ Ö.

7th IEEE International Black Sea Conference on Communications and Networking, BlackSeaCom 2019, Sochi, Rusya, 3 - 06 Haziran 2019

- II. **Construction of TEC Maps Using Compressive Sensing**  
SUNU C., TOKER C.  
27th Signal Processing and Communications Applications Conference (SIU), Sivas, Türkiye, 24 - 26 Nisan 2019
- III. **Interference Aware Optimal Resource Allocation on V2X Networks**  
DEMİR U., YÜKSEKKAYA B., TOKER C.  
27th Signal Processing and Communications Applications Conference (SIU), Sivas, Türkiye, 24 - 26 Nisan 2019
- IV. **Jamming Performance Analysis of Chirp Jammers on DSSS Signals**  
TOKER C., SUNU C., Gogusdere S.  
27th Signal Processing and Communications Applications Conference (SIU), Sivas, Türkiye, 24 - 26 Nisan 2019
- V. **Sparse 2D-DCT Reconstruction of Total Electron Content Maps**  
SUNU C., TOKER C.  
9th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Türkiye, 11 - 14 Haziran 2019, ss.667-672
- VI. **Geniş Bant Yer Tabanlı bir VLF/LF Alıcı Sisteminin Analog Ön-uç Tasarımı**  
DEMİR U., SARAÇOĞLU M. S. , TOKER C.  
IX. URSI-Türkiye 2018 Bilimsel Kongresi Ulusal Genel Kurul Toplantısı, Türkiye, 6 - 08 Eylül 2018
- VII. **Fusion of ionosonde measurements and TEC estimations using statistical techniques**  
KÖROĞLU O., ARIKAN F., TOKER C., ARTUNER H., Mošna Z.  
The second VarSITI General Symposium (VarSITI-2017), Irkutsk, Rusya, 10 - 15 Temmuz 2017
- VIII. **Spatial-Spectral Analysis of Ionospheric TEC Maps**  
Yılmaz B., TOKER C.  
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Türkiye, 15 - 18 Mayıs 2017
- IX. **Ionogram Generation in HF Band by Using Three Dimensional Ray Tracing**  
Kabasakal M., TOKER C.  
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Türkiye, 15 - 18 Mayıs 2017
- X. **Probability Distribution Extraction from TEC Estimates based on Kernel Density Estimation**  
DEMİR U., Çenet D., TOKER C.  
41st COSPAR Scientific Assembly, 30 Temmuz - 07 Ağustos 2016
- XI. **Statistical Analysis of the Ionosphere based on Singular Value Decomposition**  
DEMİR U., Deviren M. N. , TOKER C., ARIKAN F.  
41st COSPAR Scientific Assembly, 30 Temmuz - 07 Ağustos 2016
- XII. **Power Control for Two-Tier Uplink Under Feedback and Interference Constraints**  
YÜKSEKKAYA B., DEMİR U., Inaltekin H., TOKER C.  
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Türkiye, 16 - 19 Mayıs 2016, ss.1545-1548
- XIII. **Under Feedback and Interference Constraints Uplink Power Control in Two-Tier Networks**  
Demir U., Toker C., Haliloglu O., Inaltekin H.  
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Türkiye, 16 - 19 Mayıs 2016, ss.1397-1400
- XIV. **Optimum Transmission Frequency Selection on the HF Band Based on the IRI and ITS model**  
Ozdil O., TOKER C.  
39th International Conference on Telecommunications and Signal Processing (TSP), Vienna, Avusturya, 27 - 29 Haziran 2016, ss.215-218
- XV. **Power Control for Two-Tier Multi-Carrier MAC Under Interference Constraints**  
YÜKSEKKAYA B., Inaltekin H., TOKER C.  
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Türkiye, 16 - 19 Mayıs 2016, ss.1549-1552
- XVI. **Energy Efficient Power Control and Radio Resource Management in Multi-Connectivity Framework**

HALILOĞLU Ö., TOKER C., BULU G., YÜKSEKKAYA B., Yanikomeroglu H.

24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Türkiye, 16 - 19 Mayıs 2016, ss.1101-1104

**XVII. SPACE WEATHER STUDIES OF IONOLAB GROUP**

ARIKAN F., SEZEN U., TOKER C., ARTUNER H., BULU G., DEMİR U., ERDEM E., ARIKAN O., TUNA H., KARATAY S., et al.  
URSI Asia-Pacific Radio Science Conference (URSI AP-RASC), Seoul, Güney Kore, 21 - 25 Ağustos 2016, ss.1136-1139

**XVIII. Improved IONOLAB TEC Space Weather Service**

ARIKAN F., SEZEN U., TOKER C., BULU G., ARTUNER H., KARATAY S.  
IRI 2015 Workshop KMITL, 9 - 13 Kasım 2015

**XIX. Online IRI Plas Interface Service by IONOLAB**

ARIKAN F., TL G., TOKER C., SEZEN U., ARTUNER H.  
IRI 2015 Workshop KMITL, 9 - 13 Kasım 2015

**XX. Near-optimum power control for two-Tier SIMO uplink under power and interference constraints**

YÜKSEKKAYA B., İnaltekin H., TOKER C., YANIKOMEROGLU H.  
16th IEEE International Workshop on Signal Processing Advances in Wireless Communications, SPAWC 2015, Stockholm, İsveç, 28 Haziran - 01 Temmuz 2015, ss.645-649

**XXI. On Optimum Uplink Power Control at HetNets and Cognitive Radio**

DEMİR U., İNALTEKİN H., TOKER C.  
IEEE ComSoc Summer School, 6 - 09 Temmuz 2015

**XXII. Analysis of Clipping Noise in Visible Light Communications**

Fisne A., TOKER C.  
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Türkiye, 16 - 19 Mayıs 2015, ss.1684-1687

**XXIII. Doppler Shift Estimation for HF Channels Based on TEC Measurements**

TOKER C.  
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Türkiye, 16 - 19 Mayıs 2015, ss.2482-2485

**XXIV. Power control for two-tier SIMO-MIMO uplink under interference constraints İki Katmanlı TGÇÇ-ÇGÇÇ Çoklu Erişim Kanalları için Girişim Kısıtları Altında Güç Kontrolü**

YÜKSEKKAYA B., İnaltekin H., TOKER C., YANIKÖMEROĞLU H.  
2015 23rd Signal Processing and Communications Applications Conference, SIU 2015, Malatya, Türkiye, 16 - 19 Mayıs 2015, ss.931-934

**XXV. Optimal Power Control in Two-Tier Networks at Low-SNR Regime**

DEMİR U., TOKER C., İnaltekin H.  
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Türkiye, 16 - 19 Mayıs 2015, ss.1817-1820

**XXVI. MATHEMATICAL MODELING OF THE PLASMA FREQUENCY - HEIGHT PROFILE OF THE IONOSPHERE FOR HF COMMUNICATIONS**

TOKER C., ARIKAN F., ARIKAN O.  
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Türkiye, 23 - 25 Nisan 2014, ss.1063-1066

**XXVII. Energy Efficient Radio Resource Management in a Coordinated Multi-Cell Distributed Antenna System**

HALILOĞLU Ö., TOKER C., BULU G., Yanikomeroglu H.  
25th IEEE Annual International Symposium on Personal, Indoor, and Mobile Radio Communication (PIMRC), Washington, Kiribati, 2 - 05 Eylül 2014, ss.872-876

**XXVIII. INVESTIGATION OF THE CHANNEL STRUCTURE IN VISIBLE LIGHT COMMUNICATION**

Fisne A., TOKER C.  
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Türkiye, 23 - 25 Nisan 2014, ss.1646-1649

- XXIX. **Optimal Power Control in Two-Tier Networks with DC Programming**  
DEMİR U., TOKER C., Inaltekin H.  
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Türkiye, 23 - 25 Nisan 2014, ss.999-1002
- XXX. **REMOTE SENSING AND 2-D IMAGING OF IONOSPHERE BY IONOLAB GROUP**  
ARIKAN F., TOKER C., SEZEN U., Deviren M. N. , Cilibas O., ARIKAN O.  
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Türkiye, 23 - 25 Nisan 2014, ss.1520-1523
- XXXI. **Generalized Coordinated Port Selection in a Multi-Cell Distributed Antenna System using Semidefinite Relaxation**  
BULU G., Ahmad T., Gohary R., Yanikomeroglu H., TOKER C.  
IEEE 24th International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), London, Kanada, 8 - 11 Eylül 2013, ss.1029-1033
- XXXII. **Radio Resource Management in a Coordinated Cellular Distributed Antenna System By Using Particle Swarm Optimization**  
HALILOĞLU Ö., TOKER C., BULU G., Yanikomeroglu H.  
77th IEEE Vehicular Technology Conference (VTC), Dresden, Almanya, 2 - 05 Haziran 2013
- XXXIII. **Optimum Uplink Power Control Under Power and Interference Constraints**  
YÜKSEKKAYA B., INALTEKİN H., TOKER C.  
IEEE 78th Vehicular Technology Conference (VTC Fall), Nevada, Amerika Birleşik Devletleri, 2 - 05 Eylül 2013
- XXXIV. **Joint transceiver design for multiuser MIMO channel equalization Çok kullanıcı MIMO kanal denkleştirme için ortak verici-alici tasarımı**  
YÜKSEKKAYA B., TOKER C.  
18th IEEE Signal Processing and Communications Applications Conference, SIU 2010, Diyarbakır, Türkiye, 22 - 24 Nisan 2010, ss.316-319
- XXXV. **A General Joint Transceiver Design for Multiuser MIMO Channel Equalization**  
YÜKSEKKAYA B., TOKER C.  
IEEE 72nd Vehicular Technology Conference Fall 2010, Ottawa, Kanada, 6 - 09 Eylül 2010
- XXXVI. **A general framework for joint transceiver design for multiuser MIMO channel shortening equalization**  
YÜKSEKKAYA B., TOKER C.  
2009 IEEE/SP 15th Workshop on Statistical Signal Processing, SSP '09, Cardiff, İngiltere, 31 Ağustos - 03 Eylül 2009, ss.105-108
- XXXVII. **Resource Allocation for OFDMA Systems**  
Turgu C., TOKER C.  
IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Türkiye, 9 - 11 Nisan 2009, ss.790-793
- XXXVIII. **A LOW COMPLEXITY RESOURCE ALLOCATION ALGORITHM FOR OFDMA SYSTEMS**  
Turgu C., TOKER C.  
15th IEEE/SP Workshop on Statistical Signal Processing, Cardiff, İngiltere, 31 Ağustos - 03 Eylül 2009, ss.688-691
- XXXIX. **A LOW COMPLEXITY ALGORITHM BASED ON GEOMETRIC PROGRAMMING FOR CALL ADMISSION CONTROL IN WIRELESS NETWORKS**  
Ozcan M. K. , TOKER C.  
15th IEEE/SP Workshop on Statistical Signal Processing, Cardiff, İngiltere, 31 Ağustos - 03 Eylül 2009, ss.285-288
- XL. **RESOURCE ALLOCATION FOR MULTIUSER MIMO/OFDMA SYSTEMS**  
Turgu C., TOKER C.  
IEEE 16th Signal Processing and Communications Applications Conference, Aydın, Türkiye, 20 - 22 Nisan 2008, ss.757-760
- XLI. **Blind, adaptive channel shortening equaliser design with state information (BACS-SI)**  
TOKER C., Altan G.  
IEEE 15th Signal Processing and Communications Applications Conference, Eskişehir, Türkiye, 11 - 13 Haziran

## **Desteklenen Projeler**

TOKER C., TÜBİTAK Projesi, Çok Elektrotlu Rezistivite Tomografi Cihazının Geliştirilmesi ve Üretilmesi, 2016 - Devam Ediyor

TOKER C., Diğer Özel Kurumlarca Desteklenen Proje, Radar Darbelerindeki İstemsiz Kiplenimin Sınıflandırılması, 2016 - Devam Ediyor

TOKER C., HALİLOĞLU Ö., Yükseköğretim Kurumları Destekli Proje, Çok Hücreli Dağıtık Anten Sisteminde Jain Adaletliliği Altında Ortak Kaynak Yönetimi ve Güç Kontrolü - Joint Radio Resource Management and Power Control in a MultiCell Cellular Distributed Antenna System with Jain Fairness, 2017 - 2019

TOKER C., Fişne A., Yükseköğretim Kurumları Destekli Proje, Görünür Işıklı Haberleşmede Kırpma Gürültüsü Analizi, 2015 - 2017

TOKER C., TÜBİTAK Projesi, 0792 STZ 2011 - Otomatik Modülasyon Tanıma Algoritmalarının Geliştirilmesi ve Uygulanması, 2012 - 2014

TOKER C., TÜBİTAK Projesi, 107E056 - MCM TABANLI HABERLEŞME SİSTEMLERİ İÇİN KANAL KISALTMA DENKLEŞTİRİCİ TASARIMI VE KAYNAK TAHSİSİ ALGORİTMALARININ GELİŞTİRİLMESİ, 2007 - 2010

## **Atıflar**

Toplam Atıf Sayısı (WOS):84

h-indeksi (WOS):5