

Kişisel Bilgiler

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Eğitim Bilgileri

Doktora, Imperial College Of Science, Technology And Medicine, Elektrik-Elektronik Mühendisliği, İngiltere 1992 - 1995

Yabancı Diller

İngilizce, C1 İleri

Yaptığı Tezler

Doktora, Underdetermined Recursive Least-Squares Adaptive Filtering, Imperial College Of Science, Technology And Medicine, Elektrik-Elektronik Mühendisliği, 1995

Akademik Unvanlar / Görevler

Prof.Dr., Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2004 - Devam Ediyor

Doç.Dr., Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1999 - 2003

Yrd.Doç.Dr., Başkent Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1997 - 1999

Araştırma Görevlisi, Imperial College Of Science, Technology And Medicine, Elektrik Ve Elektronik Mühendisliği, 1993 - 1997

Yönetilen Tezler

BAYKAL B., Comparison of EKF, EKF2 and UKF in a loosely coupled INS/GPS integration, Yüksek Lisans, H.JANE(Öğrenci), 2018

BAYKAL B., Investigation of energy efficient traffic adaptive MAC layer protocols for multi-hop Ad-Hoc networks, Yüksek Lisans, M.SENEM(Öğrenci), 2017

BAYKAL B., A scheduling method for sporadic traffics in industrial iot, Yüksek Lisans, B.ÖZCEYLAN(Öğrenci), 2017

BAYKAL B., Vector tracking loop design for GPS receivers, Yüksek Lisans, D.ÜZEL(Öğrenci), 2016

BAYKAL B., Evaluation of priority dependent and time scheduled mac layer protocols for Ad-Hoc networks, Yüksek Lisans, İ.ERDEĞER(Öğrenci), 2015

BAYKAL B., Topology control vector based forwarding algorithm for underwater acoustic networks, Yüksek Lisans, İ.YAZGI(Öğrenci), 2015

BAYKAL B., Development of the holistic work system framework (HWSF) with the aid of information systems research design science guideline, Doktora, E.ÖZALP(Öğrenci), 2014

BAYKAL B., Tracking of multiple ground targets in clutter with interacting multiple model estimator, Yüksek Lisans, Y.KORKMAZ(Öğrenci), 2013

BAYKAL B., Target localization methods for frequency-only MIMO radar, Doktora, Y.KALKAN(Öğrenci), 2012

BAYKAL B., Yer hedeflerinin etkileşimli çoklu modelleme ile takibi, Yüksek Lisans, D.ACAR(Öğrenci), 2011

BAYKAL B., SARANLI A., Tracker-aware detection: A theoretical and an experimental study, Doktora, M.ŞAMİL(Öğrenci), 2009

BAYKAL B., The feasibility, reliable communication and networking aspects of passive wireless sensor networks, Yüksek Lisans, M.YAĞLI(Öğrenci), 2006

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BAYKAL B., İçerik tabanlı sorgu ve tarama için yapısal ve anlamsal ses içerik analizi, Doktora, M.SERT(Öğrenci), 2006

YILMAZ A. Ö. , BAYKAL B., Sub-graph approach in iterative sum-product algorithm, Yüksek Lisans, M.FATİH(Öğrenci), 2005

BAYKAL B., GENÇER N. G. , Extraction of auditory evoked potentials from ongoing EEG, Doktora, S.AYDIN(Öğrenci), 2005

BAYKAL B., Generalized random spreading performance analysis of CDMA over GWSSUS fading channels, Doktora, Ö.ERTUĞ(Öğrenci), 2005

BAYKAL B., Interception techniques for direct sequence spread spectrum signals, Yüksek Lisans, U.KARADENİZ(Öğrenci), 2005

BAYKAL B., Block transmissions on orthogonal carriers, Yüksek Lisans, A.YAZICI(Öğrenci), 2005

BAYKAL B., 2D correlated diffusion process for mobility modeling in mobile networks, Yüksek Lisans, T.ÇAKIR(Öğrenci), 2004

BAYKAL B., Implementation of stanag 4285 HF modem software on TMS320C54X digital signal processor, Yüksek Lisans, E.ÖRÜMLÜ(Öğrenci), 2004

BAYKAL B., Performance comparison of adaptive decision feedback equalizer and blind decision feedback equalizer, Yüksek Lisans, S.ŞENOL(Öğrenci), 2004

BAYKAL B., A novel architecture proposal for multi-access management in IP-based future wireless networks, Yüksek Lisans, S.ALTUNDAŞ(Öğrenci), 2003

BAYKAL B., A simulation study of scheduling algorithms for packet switching networks, Yüksek Lisans, Ö.BABUR(Öğrenci), 2003

BAYKAL B., A statistical approach for examining internet traffic and delay characteristics of UDP packets, Yüksek Lisans, C.SEVGİ(Öğrenci), 2003

BAYKAL B., Handover algorithms for mobile IPv6, Yüksek Lisans, V.ÇAĞRI(Öğrenci), 2003

BAYKAL B., Real time video over IP transmission, Yüksek Lisans, O.ÇINAR(Öğrenci), 2003

BAYKAL B., A turbo detection scheme for EGPRS, Yüksek Lisans, Ü.GÜLMEZ(Öğrenci), 2003

BAYKAL B., Buffer and error management techniques in voice over IP, Yüksek Lisans, S.CEYLAN(Öğrenci), 2002

BAYKAL B., Blind adaptive decision feedback equalization, Yüksek Lisans, E.KURBAN(Öğrenci), 2002

BAYKAL B., Mobility management in wireless networks: Handover issue, Yüksek Lisans, Ö.ESER(Öğrenci), 2001

BAYKAL B., 1200 bit/ sn hızlı bir düşük bit hızlı konuşma kodlayıcı tasarımı, Doktora, S.ÖZAYDIN(Öğrenci), 2001

BAYKAL B., Pre-handoff messaging for qos-aware and reduced latency handoffs in cellular networks, Yüksek Lisans, Ö.BARIŞ(Öğrenci), 2001

BAYKAL B., Real-time implementation of 2400 BPS melp with TMS320C3X, Yüksek Lisans, İ.ÖZÇELİK(Öğrenci), 1999

BAYKAL B., Mobile agent based wireless ATM network management protocol, Yüksek Lisans, K.ÖZBAŞ(Öğrenci), 1999

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- **IPBM: an energy efficient reliable interference-aware periodic broadcast messaging protocol for MANETs**
ÜNÜ B., Özceylan B., BAYKAL B.
WIRELESS NETWORKS, cilt.25, ss.2769-2787, 2019 (SCI İndekslerine Giren Dergi)
- **Multiple target localization & data association for frequency-only widely separated MIMO radar**
Kalkan Y., BAYKAL B.
DIGITAL SIGNAL PROCESSING, cilt.25, ss.51-61, 2014 (SCI İndekslerine Giren Dergi)
- **Frequency-based target localization methods for widely separated MIMO radar**
Kalkan Y., BAYKAL B.
RADIO SCIENCE, cilt.49, ss.53-67, 2014 (SCI İndekslerine Giren Dergi)
- **Study on Q-RAM and Feasible Directions Based Methods for Resource Management in Phased Array Radar Systems**
Irci A., SARANLI A., BAYKAL B.
IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, cilt.46, ss.1848-1864, 2010 (SCI İndekslerine Giren Dergi)
- **Tracker-aware adaptive detection: An efficient closed-form solution for the Neyman-Pearson case**

Aslan M. S. , SARANLI A., BAYKAL B.

DIGITAL SIGNAL PROCESSING, cilt.20, ss.1468-1481, 2010 (SCI İndekslerine Giren Dergi)

- **Wireless Passive Sensor Networks**

Akan O. B. , Isik M. T. , BAYKAL B.

IEEE COMMUNICATIONS MAGAZINE, cilt.47, ss.92-99, 2009 (SCI İndekslerine Giren Dergi)

- **Structural and semantic modeling of audio for content-based querying and browsing**

Sert M., Baykal B., Yazici A.

FLEXIBLE QUERY ANSWERING SYSTEMS, PROCEEDINGS, cilt.4027, ss.319-330, 2006 (SCI İndekslerine Giren Dergi)

- **Real-time coordination and routing in wireless sensor and actor networks**

Shah G. A. , Bozyigit M., Akan O. B. , Baykal B.

NEXT GENERATION TELETRAFFIC AND WIRED/ WIRELESS ADVANCED NETWORKING, PROCEEDINGS, cilt.4003, ss.365-383, 2006 (SCI İndekslerine Giren Dergi)

- **Handoff performance improvement with latency reduction in next generation wireless networks**

Akan O., Baykal B.

WIRELESS NETWORKS, cilt.11, ss.319-332, 2005 (SCI İndekslerine Giren Dergi)

- **Mobile multi-access IP: a proposal for mobile multi-access management in future wireless IP networks**

Altuntas S., Baykal B.

COMPUTER NETWORKS, cilt.47, ss.577-592, 2005 (SCI İndekslerine Giren Dergi)

- **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, ss.89-94, 2005 (SCI İndekslerine Giren Dergi)

- **Blind channel estimation via combining autocorrelation and blind phase estimation**

Baykal B.

IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I-REGULAR PAPERS, cilt.51, ss.1125-1131, 2004 (SCI İndekslerine Giren Dergi)

- **Blind matched filter receiver**

Baykal B.

IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I-REGULAR PAPERS, cilt.51, ss.379-390, 2004 (SCI İndekslerine Giren Dergi)

- **Matrix quantization and mixed excitation based linear predictive speech coding at very low bit rates**

Ozaydin S., Baykal B.

SPEECH COMMUNICATION, cilt.41, ss.381-392, 2003 (SCI İndekslerine Giren Dergi)

- **Matched filtering for CMA-based blind channel estimation**

Baykal B., Constantinides A.

ELECTRONICS LETTERS, cilt.39, ss.1285-1287, 2003 (SCI İndekslerine Giren Dergi)

- **Methodology for performance analysis of randomly-spread CDMA systems over multipath fading channels via crosscorrelation matrix non-asymptotic average eigenvalue densities**

Ertug O., Baykal B., Unal B.

ELECTRONICS LETTERS, cilt.39, ss.1210-1212, 2003 (SCI İndekslerine Giren Dergi)

- **Complexity reduction in radial basis function (RBF) networks by using radial B-spline functions**

Saranli A., Baykal B.

NEUROCOMPUTING, cilt.18, ss.183-194, 1998 (SCI İndekslerine Giren Dergi)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- **An Energy Efficient Optimum Shared Cell Scheduling for TSCH Networks**

Ozceylan B., Unlu B., BAYKAL B.

13th IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob), Rome, İtalya, 9 - 11 Ekim 2017, ss.395-402

- **Topology Control Vector Based Forwarding Algorithm for Underwater Acoustic Networks**

Yazgi I., BAYKAL B.

24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Türkiye, 16 - 19 Mayıs 2016, ss.1141-1144

- **A Holistic Work System Framework (HWSF) Development Using Systems Thinking**

Ozalp E., BAYKAL B.

Portland International Conference on Management of Engineering & Technology (PICMET), Kanazawa, Japonya, 27 - 31 Temmuz 2014, ss.2056-2069

- **Track Loss versus Computation Time Dilemma in Multitarget Ground Target Tracking Performance**

Korkmaz Y., BAYKAL B.

16th International Conference on Information Fusion (FUSION), İstanbul, Türkiye, 9 - 12 Temmuz 2013, ss.2168-2176

- **Ground Target Tracking of a Temporarily Invisible Target due to Topographic Constraints**

Alat G., LEBLEBİCİOĞLU M. K. , BAYKAL B.

21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 Nisan 2013

- **Target Localization and Velocity Estimation Methods for Frequency-Only MIMO Radars**

Kalkan Y., BAYKAL B.

IEEE Radar Conference (RADAR), Missouri, Amerika Birleşik Devletleri, 23 - 27 Mayıs 2011, ss.458-463

- **Fault Tree Analysis of a Fire Hazard of a Power Distribution Cabinet with Petri Nets**

Pahsa A., Bayazit T. A. , Alat G., Baykal B., Havelsan A. S. , Binasi A.

IEEE International Conference on Systems, Man and Cybernetics, İstanbul, Türkiye, 10 - 13 Ekim 2010

- **Target Localization Methods for Frequency-Only MIMO Radar**

Kalkan Y., BAYKAL B.

7th European Radar Conference (EURAD), Paris, Fransa, 30 Eylül - 01 Ekim 2010, ss.396-399

- **MIMO Radar Target Localization by Using Doppler Shift Measurement**

Kalkan Y., BAYKAL B.

6th European Radar Conference, Rome, İtalya, 30 Eylül - 02 Ekim 2009, ss.489-490

- **A Display Processing Software Application Framework for Mission Computer Systems**

Kilinc I., Gezici G., Er E., Baykal B.

24th International Symposium on Computer and Information Sciences, Güzelyurt, Kıbrıs (Kkct), 14 - 16 Eylül 2009, ss.723-724

- **Using Continuous Integration and Automated Test Techniques for a Robust C4ISR System**

Yuksel H. M. , Tuzun E., Gelirli E., Biyikli E., BAYKAL B.

24th International Symposium on Computer and Information Sciences, Güzelyurt, Kıbrıs (Kkct), 14 - 16 Eylül 2009, ss.741-742

- **A Buffer Zone Computation Algorithm for Corridor Rendering in GIS**

Er E., Kilinc I., Gezici G., BAYKAL B.

24th International Symposium on Computer and Information Sciences, Güzelyurt, Kıbrıs (Kkct), 14 - 16 Eylül 2009, ss.431-432

- **A PRACTICAL POINT OF VIEW: PERFORMANCE OF NEYMAN-PEARSON DETECTOR FOR MIMO RADAR IN K-DISTRIBUTED CLUTTER**

Yazici A., Hamurcu A. C. , BAYKAL B.

15th IEEE/SP Workshop on Statistical Signal Processing, Cardiff, İngiltere, 31 Ağustos - 03 Eylül 2009, ss.273-276

- **Combining Structural Analysis and Computer Vision Techniques for Automatic Speech Summarization**

SERT M., BAYKAL B., YAZICI A.

IEEE International Symposium on Multimedia, California, Amerika Birleşik Devletleri, 15 - 17 Aralık 2008, ss.515-516

- **Block Transmissions on Orthogonal Carriers**

Yazici A., BAYKAL B.

64th IEEE Vehicular Technology Conference, Montreal, Kanada, 25 - 28 Eylül 2006, ss.852-856

- **Generating expressive summaries for speech and musical audio using self-similarity clues**

Sert M., Baykal B., Yazici A.

IEEE International Conference on Multimedia and Expo (ICME 2006), Toronto, Kanada, 9 - 12 Temmuz 2006, ss.941-944

- **A robust and time-efficient fingerprinting model for musical audio**

SERT M., BAYKAL B., YAZICI A.

10th IEEE International Symposium on Consumer Electronics (ISCE 2006), St Petersburg, Rusya, 28 Haziran - 01 Temmuz 2006, ss.628-629

- **On optimal resource allocation in multifunction radar systems**

Irci A., SARANLI A., BAYKAL B.

2006 IEEE Radar Conference, Verona, İtalya, 24 - 27 Nisan 2006, ss.684-685

- **A real-time optimal resource allocation approach in a radar system**

Irci A., Saranli A., BAYKAL B.

IEEE 14th Signal Processing and Communications Applications, Antalya, Türkiye, 16 - 19 Nisan 2006, ss.846-847

- **Maximum total ergodic spectral efficiency of randomly-spread coded-CDMA with linear multiuser receivers over multipath fading channels**

Ertug Z., Unal B., Baykal B., Yucel M.

IEEE Global Telecommunications Conference (GLOBECOM 03), San-Francisco, Kostarika, 1 - 05 Aralık 2003, ss.1568-1572

- **Comparison of methods for extracting of evoked potentials**

Kilic S., Gencer N., Baykal B.

25th Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society, Cancun, Meksika, 17 - 21 Eylül 2003, cilt.25, ss.2495-2498

- **A new approach to unified performance analysis of randomly-spread CDMA systems over multipath fading channels via crosscorrelation matrix non-asymptotic average eigenvalue distributions**

Ertug O., Baykal B., Sayrac B.

14th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, Beijing, Çin, 7 - 10 Eylül 2003, ss.564-568

- **Total outage capacity of randomly-spread coded-CDMA with linear multiuser receivers over multipath fading channels**

Ertug O., Sayrac B., Baykal B., Yucel M.

8th IEEE International Symposium on Computers and Communication (ISCC 2003), Antalya, Türkiye, 30 Haziran - 03 Temmuz 2003, ss.913-918

- **A QoS-Aware handoff using RSVP in next generation wireless networks**

Baykal B., Akan O.

8th IEEE International Symposium on Computers and Communication (ISCC 2003), Antalya, Türkiye, 30 Haziran - 03 Temmuz 2003, ss.125-130

- **Dynamic SLA management in cellular DiffServ networks**

Akan O., Baykal B.

10th International Conference on Telecommunications (ICT 2003), Papeete, Fransız Polinezyası, 23 Şubat - 01 Mart 2003, ss.330-333

- **An IP multicast handoff scheme with focus on IGMP sourced latency**

Baykal B., Akdemir O., Akan O.

5th IEEE International Conference on High Speed Networks and Multimedia Communications (HSNMC 2002), Jeju-Si, Güney Kore, 3 - 05 Temmuz 2002, ss.361-364

- **Space-time-frequency decorrelating decision-feedback multiuser detector over fast-fading multipath channels for synchronous DS-CDMA systems**

Ertug O., Baykal B., Unal B.

54th IEEE Vehicular Technology Conference (VTC 2001), New-Jersey, Amerika Birleşik Devletleri, 7 - 11 Ekim 2001, ss.328-332

- **Space-time-frequency multiuser detection over fast-fading multipath channels for synchronous DS-CDMA systems**

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53rd IEEE Vehicular Technology Conference (VTC), RHODES, Yunanistan, 6 - 09 Mayıs 2001, ss.1503-1507

- **Time-frequency decorrelating decision-feedback multiuser detector over fast-fading multipath channels for synchronous DS-CDMA systems**

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Atrflar

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