

Prof. ADNAN KAVAK

Personal Information

Email: akavak@kocaeli.edu.tr



Education Information

Doctorate, The University of Texas at Austin, School of Engineering, Electrical and Computer Engineering, United States Of America 1996 - 2000

Post Graduate, The University of Texas at Austin, School of Engineering, Electrical and Computer Engineering, United States Of America 1994 - 1996

Under Graduate, Middle East Technical University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, Turkey 1987 - 1992

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Vector Propagation Channels For Smart Antenna Wireless Communication Systems, The University Of Texas At Austin, Elektrik-Bilgisayar Mühendisliği, 2000

Post Graduate, Grpund Specular Reflection Effects at L band and UHF Band GPS Signals, The University Of Texas At Austin, Elektrik-Bilgisayar Mühendisliği, 1996

Research Areas

Information Systems, Communication and Control Engineering, Computer Sciences, Electrical and Electronics Engineering

Academic Titles / Tasks

Professor, Kocaeli University, Bilgisayar Mühendisliği Bölümü, 2011 - Continues

Associate Professor, Kocaeli University, Bilgisayar Mühendisliği Bölümü, 2005 - 2011

Assistant Professor, Kocaeli Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2003 - 2005

Assistant Professor, Kocaeli Üniversitesi, Teknik Eğitim Fakültesi, Elektronik Ve Bilgisayar Eğitimi Bölümü, 2001 - 2003

Professional Experience

Head of Department, Kocaeli Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2013 - Continues

Head of Department, Kocaeli Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2011 - Continues

Deputy Head of Department, Kocaeli Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2006 - 2006

Deputy Head of Department, Kocaeli Üniversitesi, Teknik Eğitim Fakültesi, Elektronik Ve Bilgisayar Eğitimi Bölümü, 2001 - 2003

Head of Department, Kocaeli Üniversitesi, Teknik Eğitim Fakültesi, Elektronik Ve Bilgisayar Eğitimi Bölümü, 2001 - 2003

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Self-adaptive medium access control protocol for aggregated VLC & RF wireless networks**
Kucuk K., Msongaleli D. L. , Akbulut O., KAVAK A., Bayilmis C.
OPTICS COMMUNICATIONS, vol.488, 2021 (Journal Indexed in SCI)
- II. **Comparative performance analysis of cooperative and multi dual-hop relay networks using MGF approach**
Asshad M., Kavak A., Küçük K., Ahmad Khan S.
INTERNATIONAL JOURNAL OF COMMUNICATION SYSTEMS, vol.33, 2020 (Journal Indexed in SCI)
- III. **Using Moment Generating Function for Performance Analysis in Non-Regenerative Cooperative Relay Networks with Max-Min Relay Selection**
Asshad M., KAVAK A., KÜÇÜK K., Khan S. A.
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, vol.116, 2020 (Journal Indexed in SCI)
- IV. **Physical Layer Detection of Malicious Relays in LTE-A Network Using Unsupervised Learning**
Yengi Y., KAVAK A., Arslan H.
IEEE ACCESS, vol.8, pp.154713-154726, 2020 (Journal Indexed in SCI)
- V. **Cooperative communications using relay nodes for next-generation wireless networks with optimal selection techniques: A review**
Asshad M., Khan S. A. , KAVAK A., KÜÇÜK K., Msongaleli D. L.
IEEE JOURNAL OF ELECTRICAL AND ELECTRONIC ENGINEERING, vol.14, no.5, pp.658-669, 2019 (Journal Indexed in SCI)
- VI. **Adaptive Polling Medium Access Control Protocol for Optic Wireless Networks**
Msongaleli D. L. , Küçük K., Kavak A.
APPLIED SCIENCES-BASEL, vol.9, 2019 (Journal Indexed in SCI)
- VII. **A Novel Fractional Frequency Reuse Scheme for Interference Management in LTE-A HetNets**
Khan S. A. , Kavak A., Colak S., Küçük K.
IEEE ACCESS, vol.7, pp.109662-109672, 2019 (Journal Indexed in SCI)
- VIII. **Idle Time Estimation for Bandwidth-Efficient Synchronization in Replicated Distributed File System**
GULAGIZ F., EKEN S., KAVAK A., SAYAR A.
INTERNATIONAL ARAB JOURNAL OF INFORMATION TECHNOLOGY, vol.15, no.2, pp.177-185, 2018 (Journal Indexed in SCI)
- IX. **Throughput Maximization of CSMA in Cognitive Radio Networks with Cooperative Spectrum Sensing**
Atmaca S., Sayli O., Yuan J., KAVAK A.
WIRELESS PERSONAL COMMUNICATIONS, vol.92, no.4, pp.1473-1492, 2017 (Journal Indexed in SCI)
- X. **A mobile and web application-based recommendation system using color quantization and collaborative filtering**
Kaya F., Yildiz G., KAVAK A.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.23, no.3, pp.900-912, 2015 (Journal Indexed in SCI)
- XI. **Smart and Reconfigurable Antenna Applications in Wireless Sensor Networks**
Yegin K., KAVAK A., Cayirci E., Dandekar K.
INTERNATIONAL JOURNAL OF DISTRIBUTED SENSOR NETWORKS, 2014 (Journal Indexed in SCI)

- XII. **Connectivity Analysis for Wireless Sensor Networks with Antenna Array Integrated Central Node**
KÜÇÜK K., KAVAK A.
WIRELESS PERSONAL COMMUNICATIONS, vol.72, no.2, pp.1361-1371, 2013 (Journal Indexed in SCI)
- XIII. **A modified sectoral sweeper-based localization estimation and its implementation in a multi-hop wireless sensor networking environment by using OPNET**
KÜÇÜK K., Bandirmali N., KAVAK A., ATMACA S.
SIMULATION-TRANSACTIONS OF THE SOCIETY FOR MODELING AND SIMULATION INTERNATIONAL, vol.89, no.6, pp.746-761, 2013 (Journal Indexed in SCI)
- XIV. **A learning approach in link adaptation for MIMO-OFDM systems**
YİĞİT H., KAVAK A.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.21, no.5, pp.1465-1478, 2013 (Journal Indexed in SCI)
- XV. **Analytical Derivation of 2 x 2 MIMO Channel Capacity in Terms of Multipath Angle Spread and Signal Strength**
YİĞİT H., KAVAK A.
FREQUENZ, vol.66, pp.97-100, 2012 (Journal Indexed in SCI)
- XVI. **FPGA Based Implementation and Comparison of Beamformers for CDMA2000**
Dıkmese S., Kavak A., Küçük K., Şahin S., Tangel A.
WIRELESS PERSONAL COMMUNICATIONS, vol.57, pp.233-253, 2011 (Journal Indexed in SCI)
- XVII. **Scalable location estimation using smart antennas in wireless sensor networks**
KÜÇÜK K., KAVAK A.
AD HOC NETWORKS, vol.8, no.8, pp.889-903, 2010 (Journal Indexed in SCI)
- XVIII. **Digital signal processor against field programmable gate array implementations of space-code correlator beamformer for smart antennas**
Dıkmese S., Kavak A., Küçük K., Şahin S., Tangel A., Dıncer H.
IET MICROWAVES ANTENNAS & PROPAGATION, vol.4, pp.593-599, 2010 (Journal Indexed in SCI)
- XIX. **Capacity Improvement for TDD-MIMO Systems via AR Modeling Based Linear Prediction**
YİĞİT H., KAVAK A., KÜÇÜK K.
WIRELESS PERSONAL COMMUNICATIONS, vol.52, no.2, pp.411-418, 2010 (Journal Indexed in SCI)
- XX. **A Practical Space-Code Correlator Receiver for DSP Based Software Radio Implementation in CDMA2000**
KÜÇÜK K., KAVAK A., KARAKOC M., YİĞİT H., Ozdemir C.
WIRELESS PERSONAL COMMUNICATIONS, vol.49, no.2, pp.245-261, 2009 (Journal Indexed in SCI)
- XXI. **Genetic approach for dynamic OVSF code allocation in 3G wireless networks**
Karakoc M., KAVAK A.
APPLIED SOFT COMPUTING, vol.9, no.1, pp.348-361, 2009 (Journal Indexed in SCI)
- XXII. **Interference analysis and capacity for forward link 3G CDMA network with adaptive antennas**
KAVAK A., Karakoc M., Torlak M., ÖZDEMİR C.
WIRELESS COMMUNICATIONS & MOBILE COMPUTING, vol.8, no.4, pp.531-543, 2008 (Journal Indexed in SCI)
- XXIII. **Smart antenna based OVSF code assignment for WCDMA networks**
KAVAK A., Karakoc M.
WIRELESS PERSONAL COMMUNICATIONS, vol.43, no.4, pp.1761-1766, 2007 (Journal Indexed in SCI)
- XXIV. **Performance of adaptive antenna array based dynamic OVSF code assignment for multipath propagation and multicell environment**
Karakoc M., KAVAK A.
FREQUENZ, vol.61, pp.254-258, 2007 (Journal Indexed in SCI)
- XXV. **A synthetic aperture radar-based focusing algorithm for B-SCAN ground penetrating radar imagery**
Yigit E., Demirci S., Ozdemir C., Kavak A.
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.49, no.10, pp.2534-2540, 2007 (Journal Indexed in SCI)
- XXVI. **A hyperbolic summation method to focus B-scan ground penetrating radar images: An experimental study with a stepped frequency system**

- Ozdemir C., Demirci S., Yigit E., Kavak A.
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.49, no.3, pp.671-676, 2007 (Journal Indexed in SCI)
- XXVII. **The sectoral sweeper scheme for wireless sensor networks: Adaptive antenna array based sensor node management and location estimation**
Erdogan A., Coskun V., Kavak A.
WIRELESS PERSONAL COMMUNICATIONS, vol.39, no.4, pp.415-433, 2006 (Journal Indexed in SCI)
- XXVIII. **Using adaline neural network for performance improvement of smart antennas in TDD wireless communications**
Kavak A., Yigit H., Ertunc H. M.
IEEE TRANSACTIONS ON NEURAL NETWORKS, vol.16, no.6, pp.1616-1625, 2005 (Journal Indexed in SCI)
- XXIX. **Spatial and temporal fading correlations of a uniform circular array smart antenna in urban vehicular propagation**
Kavak A.
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.40, pp.61-65, 2004 (Journal Indexed in SCI)
- XXX. **Evaluation of smart antenna algorithms for cdma2000 reverse link**
Karakoc M., Kavak A.
NETWORKING 2004, vol.3042, pp.1360-1365, 2004 (Journal Indexed in SCI)
- XXXI. **Software radio implementation of a smart antenna system on digital signal processors for cdma2000**
Kucuk K., KARAKOC M., KAVAK A.
INTELLIGENT INFORMATION TECHNOLOGY, PROCEEDINGS, vol.3356, pp.97-106, 2004 (Journal Indexed in SCI)
- XXXII. **Autoregressive and neural network model based predictions for downlink beamforming**
YİĞİT H., Kavak A., Ertunc M.
ADVANCES IN NEURAL NETWORKS - ISSN 2004, PT 2, vol.3174, pp.254-261, 2004 (Journal Indexed in SCI)
- XXXIII. **Characteristics of vector propagation channels in dynamic mobile scenarios**
Kavak A., Yang W., Xu G., Vogel W.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.49, no.12, pp.1695-1702, 2001 (Journal Indexed in SCI)
- XXXIV. **Mobile transmit diversity for base-station antenna arrays**
Kavak A., Xu G.
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.30, no.2, pp.95-97, 2001 (Journal Indexed in SCI)
- XXXV. **Vector channels for smart antennas - Measurements statistical modeling, and directional properties in outdoor environments**
Kavak A., Torlak M., Vogel W., Xu G.
IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol.48, no.6, pp.930-937, 2000 (Journal Indexed in SCI)
- XXXVI. **Using GPS to measure ground complex permittivity**
Kavak A., Vogel W., Xu G.
ELECTRONICS LETTERS, vol.34, no.3, pp.254-255, 1998 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **A Power Control Algorithm (PCA) and Software Tool for Femtocells in LTE-A Networks**
KHAN s., ASHAD m., KÜÇÜK K., KAVAK A.
Sakarya University Journal of Science, vol.22, pp.1124-1129, 2018 (Other Refereed National Journals)
- II. **Fall detection using smartphone-based application**
Yıldırım K., UÇAR G., Keskin T., KAVAK A.
International Journal of Applied Mathematics, Electronics and Computers, vol.4, no.4, pp.140-144, 2016 (Refereed Journals of Other Institutions)
- III. **Analyzing Entity Framework Technology for An Indoor Decoration Based Recommendation System**
KAYA F., Başaran U., KAVAK A.

JOURNAL OF COMPUTERS, vol.11, pp.320-328, 2016 (Journal Indexed in ESCI)

- IV. **A Comparison of Imputation Techniques using Network Traffic Data**
KAYA F., GÖK O., KAVAK A.
International Journal of Computer Applications, vol.142, pp.25-29, 2016 (Refereed Journals of Other Institutions)
- V. **A Study on Environmental Effect of Electromagnetic Waves**
KAYA F., GÖZ F., KAVAK A.
International Journal of Computer Applications, vol.140, pp.35-41, 2016 (Refereed Journals of Other Institutions)
- VI. **Beacon Temelli Sanal Etiket Uygulaması**
KAYA F., GÖZ F., Şahin E., Albayrak M. S. , KAVAK A.
BİLECİK ŞEYH EDEBALI ÜNİVERSİTESİ FEN BİLİMLERİ DERGİSİ, vol.3, pp.1-7, 2016 (Other Refereed National Journals)
- VII. **Üçüncü Nesil CDMA Sistemler İçin Yeni Bir Akıllı Anten Algoritması Gerçekleştirilmesi ve Performans Analizi**
Küçük K., Mustafa K., Kavak A., Yiğit H.
Gazi Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, vol.21, pp.801-808, 2006 (National Refreed University Journal)
- VIII. **Implementation and Performance Analysis of a Novel Smart Antenna Algorithm for 3G CDMA Systems**
KÜÇÜK K., MUSTAFA K., KAVAK A., YİĞİT H.
Journal of The Faculty of Engineering and Architecture of Gazi University, vol.21, pp.801-808, 2006 (Other Refereed National Journals)
- IX. **Adaptive Linear Prediction based Downlink Beamforming for Wireless Communication Systems**
YİĞİT H., KAVAK A.
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.18, pp.409-419, 2005 (Other Refereed National Journals)
- X. **Design and Implementation of Floating Point Arithmetics on FPGA using VHDL**
ŞAHİN S., KAVAK A.
Journal of Naval Science and Engineering, vol.3, pp.57-70, 2005 (Refereed Journals of Other Institutions)
- XI. **Overview of Smart Antenna Methodologies for Mobile Communications**
KARAKOÇ M., YİĞİT H., KÜÇÜK K., KAVAK A.
Journal of Naval Science and Engineering, vol.2, pp.51-66, 2004 (Other Refereed National Journals)

Books & Book Chapters

- I. **A Novel Signaling Protocol (ARCSPXP): Case Study on Synchronization of Educational Data**
EKEN S., KAYA F., SAYAR A., KAVAK A., İLHAN Z., KOCASARAÇ U.
in: Mobile Networks and Management, Ramón Agüero, Yasir Zaki, Bernd-Ludwig Wenning, Anna Förster, Andreas Timm-Giel, Editor, Springer International Publishing, 2017
- II. **A Method for Localization of Computational Node and Proxy Server in Educational Data Synchronization**
KAYA F., EKEN S., SAYAR A., KAVAK A., ŞAHİN S.
in: Wireless Internet Lecture Notes of the Inst A Method for Localization of Computational Node and Proxy Server in Educational Data Synchronization, Mumtaz, S., Rodriguez, J., Katz, M., Wang, C., Nascimento, A. (Eds.), Editor, Springer, pp.180-190, 2015
- III. **A method for localization of computational node and proxy server in educational data synchronization**
EKEN S., KAYA F., SAYAR A., KAVAK A.
in: Wireless Internet, Mumtaz Shahid, Rodriguez Jonathan, Katz Marcos, Wang Chonggang, Nascimento Alberto, Editor, Springer, 2015
- IV. **Implementation of floating point arithmetics using an FPGA**
ŞAHİN S., KAVAK A., BECERİKLİ Y., demiray h. e.

Refereed Congress / Symposium Publications in Proceedings

- I. **Cloud Based IoE Connectivity Engines for The Next Generation Networks: Challenges and Architectural Overview**
Sırma M., KAVAK A., İNNER A. B.
2019 1st International Informatics and Software Engineering Conference (UBMYK), Ankara, Turkey, Turkey, 6 - 07 November 2019
- II. **Performance Analysis of Multi-Node Cooperative Network with Amplify and Forward Relay Protocol**
Asshad M., Ahmad S. A. , KAVAK A., KÜÇÜK K.
1st International Informatics and Software Engineering Conference, 6 - 07 November 2019
- III. **Evaluation of Multi Dual-Hop and Cooperative Relay Networks using MGF Based Analysis**
Ashad M., Khan S. A. , Kavak A., Küçük K.
1st International Informatics and Software Engineering Conference, Ankara, Turkey, 6 - 07 November 2019
- IV. **A User Location Distribution Based FFR Strategy for Efficient Utilization of Radio Resources in LTE-A HetNets**
Khan S. A. , ALDIRMAZ ÇOLAK S., KAVAK A., KÜÇÜK K.
1st International Informatics and Software Engineering Conference, 6 - 07 November 2019
- V. **Malicious Relay Node Detection with Unsupervised Learning in Amplify-Forward Cooperative Networks**
Yengi Y., Kavak A., Arslan H., Küçük K., Yiğit H.
International Conference on Innovation and Intelligence for Informatics, Computing, and Technologies (3ICT), Sitrah, Bahrain, 22 - 23 September 2019, pp.1-5
- VI. **A new fractional frequency reuse method for interference management in LTE-A HetNets**
Khan S. A. , Kavak A., Küçük K., Asshad M.
27th Signal Processing and Communications Applications Conference, SIU 2019, Sivas, Turkey, 24 - 26 April 2019
- VII. **Tarım Arazisinde Dikili Fidanların Gelisim ve Verimlilik Takibi icin Cografı Bilgi Sistemlerine Dayalı Mobil Uygulama Gelistirilmesi**
Erbay G., KAVAK A., İNNER A. B.
International Symposium on Innovative Approaches in Scientific Studies (ISAS Winter 2018), Samsun, Turkey, 30 November - 02 December 2018, pp.764-768
- VIII. **QRS detection on IOS platform based on single channel practical ECG measurement for remote patient monitoring**
Avcu F., KAVAK A., İNNER A. B.
2018 26th Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- IX. **ALTHIS: Design of An End to End Integrated Remote Patient Monitoring System and a Case Study for Diabetic Patients**
KAVAK A., İNNER A. B.
Medical Technologies National Congress (TIPTEKNO), Magusa, CYPRUS, 8 - 10 November 2018
- X. **Lucrative Data Center Transformation Strategies at Digital Age Wins to Business Infinity**
Sırma M., KAVAK A.
4TH INTERNATIONAL CONFERENCE ON "INNOVATIVE TRENDS IN MULTIDISCIPLINARY ACADEMIC RESEARCH" (ITMAR-2017), İstanbul, Turkey, 20 - 21 October 2017
- XI. **A novel signaling protocol (ARCSPXP): Case study on synchronization of educational data**
EKEN S., Gülağız F., SAYAR A., KAVAK A., KOCASARAÇ U., İLHAN Z.
8th EAI International Conference on Mobile Networks and Management, MONAMI 2016, Abu Dhabi, United Arab Emirates, 23 - 24 October 2016, vol.191, pp.31-43
- XII. **Big Data Overview With Open Challenges and Research Areas**

Oktay T., KAVAK A.

International Science and Technology Conference (ISTEC 2016), Viyana, Austria, 13 - 15 July 2016, pp.189

XIII. **Transport Power Control Algorithm for LTE A Femtocell Networks**

Khan S. A. , KAVAK A., Ashad M., KAYA F.

ICAT 2016, Konya, Turkey, 1 - 03 October 2016, pp.204-207

XIV. **TRANSMIT POWER CONTROL TPC ALGORITHM FOR LTE A FEMTOCELL NETWORKS**

Khan S. A. , KAVAK A., Asshad M., KAYA F.

3rd International Conference on Advanced Technology & Sciences, Konya, Turkey, 1 - 03 September 2016

XV. **A Study Based on Clustering Techniques in Data Mining Comparison of Farthest First Clustering Density Based Clustering K means and K Medoids Algorithms**

KAYA F., KAVAK A.

INSODE 2016, Antalya, Turkey, 12 - 14 May 2016, pp.24

XVI. **Design and Implementation of a Communication Protocol for Mobile Device Controlled Smart Home Management System**

MENTEŞOĞLU m., KAVAK A., YAKUT M., TANGEL A., ŞAHİN S., ÖZCAN H.

SIU2015, Turkey, 16 - 19 May 2015

XVII. **A Cluster Based Routing Approach in LTE Ad-hoc Networks**

Karahan A., KAVAK A., Atmaca S.

International Conference on Information and Communication Technology Research (ICTRC 2015), Abu Dhabi, United Arab Emirates, 17 - 19 May 2015, pp.250-253

XVIII. **Estimation of Idle Time for Synchronization: A Case Study on Fatih Project**

Gulagiz F., EKEN S., KAVAK A., SAYAR A.

23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.1158-1161

XIX. **A method for localization of computational node and proxy server in educational data synchronization**

EKEN S., Kaya F., SAYAR A., KAVAK A., ŞAHİN S.

8th International Wireless Internet Conference, WICON 2014, Lisbon, Portugal, 13 - 14 November 2014, vol.146, pp.180-190

XX. **Bulut Vekil Sunucu ve Tabletler Arasında Veri Senkronizasyonu için RTT Kullanarak Farklı Kümeleme Metotlarının Değerlendirilmesi**

EKEN S., KAYA F., GÜNGÖR A., SAYAR A., KAVAK A., ŞAHİN S.

Elektrik, Elektronik, Bilgisayar ve Biyomedikal Mühendisliği Sempozyumu, Turkey, 27 - 29 November 2014

XXI. **Bulut Vekil Sunucu ve Tabletler Arasında Veri Senkronizasyonu için RTT Kullanarak Farklı Kümeleme Metodlarının Değerlendirilmesi**

EKEN S., KAYA F., GÜNGÖR A., SAYAR A., KAVAK A., ŞAHİN S.

2014 ELEKTRİK - ELEKTRONİK, BİLGİSAYAR ve BİYOMEDİKAL MÜHENDİSLİĞİ SEMPOZYUMU, Turkey, 27 - 29 November 2014, pp.670-675

XXII. **Fatih Projesinde Proxy Sunucunun Doğru Konumlandırıldığıнын Kontrol Edilmesi ve Tabletlerinin Yerini Tespit için Bir Metot**

EKEN S., KAYA F., KEREM Ç., SAYAR A., KAVAK A., ŞAHİN S.

2014 ELEKTRİK - ELEKTRONİK, BİLGİSAYAR ve BİYOMEDİKAL MÜHENDİSLİĞİ SEMPOZYUMU, Turkey, 27 - 29 November 2014, pp.748-752

XXIII. **Bulut Vekil Sunucu ve Tabletler Arasında Veri Senkronizasyonu için RTT Kullanarak Farklı Kümeleme Metotlarının Değerlendirilmesi**

EKEN S., KAYA F., Güngör A., SAYAR A., KAVAK A.

ELECO 2014, Turkey, 27 - 29 November 2014

XXIV. **A Method for Verifying Accurate Deployment of a Proxy Server and Localization of Tablets in Fatih Project**

EKEN S., KAYA F., GÜNGÖR A., SAYAR A., KAVAK A., ŞAHİN S.

Elektrik - Elektronik, Bilgisayar ve Biyomedikal Mühendisliği Sempozyumu, ELECO 2014, Bursa, Turkey, 27 - 29

November 2014, pp.748-752

- XXV. **Fatih Projesinde Proxy Sunucunun Doğru Konumlandırıldığıнын Kontrol Edilmesi ve Tabletlerinin Yerini Tespit için Bir Metot**
EKEN S., KAYA F., Kerem Ç., SAYAR A., KAVAK A., ŞAHİN S.
ELECO 2014, Bursa, Turkey, 27 - 29 November 2014
- XXVI. **Evaluation of RTT based Clustering Methods for Data Synchronization between Proxy Cloud Servers and Tablets**
EKEN S., KAYA F., GÜNGÖR A., SAYAR A., KAVAK A., ŞAHİN S.
Elektrik - Elektronik, Bilgisayar ve Biyomedikal Mühendisliği Sempozyumu, ELECO 2014, Bursa, Turkey, 27 - 29 November 2014, pp.670-675
- XXVII. **Capcha Karakterlerinin Yapay Sinir Ağları Kullanılarak Karşılaştırılması**
EKEN S., KAYA F., SAYAR A., KAVAK A.
7. Mühendislik ve Teknoloji Sempozyumu, Cankaya Üniversitesi, Ankara, Turkey, 15 - 16 May 2014, pp.7-11
- XXVIII. **Döküman Tabanlı NoSQL Veritabanları MongoDB ve CouchDB yatay ölçeklenebilirlik karşılaştırması**
EKEN S., KAYA F., SAYAR A., KAVAK A.
7. Mühendislik ve Teknoloji Sempozyumu, Cankaya Üniversitesi, Ankara, Turkey, 15 - 16 May 2014, pp.61-67
- XXIX. **Döküman Tabanlı NoSQL Veritabanları: MongoDB ve CouchDB yatay ölçeklenebilirlik karşılaştırması**
EKEN S., KAYA F., SAYAR A., KAVAK A.
7. Mühendislik ve Teknoloji Sempozyumu, Turkey, 15 May 2014
- XXX. **Tracking a single node's availability for communication by means of observing local system resources**
EKEN S., KAYA F., SAYAR A., KAVAK A.
IEEE International Symposium on Innovations in Intelligent Systems and Applications (INISTA), Alberobello, Italy, 23 - 25 June 2014, pp.41-45
- XXXI. **A Comparative Study of Signaling Protocols for Data Management and Synchronization in Fatih Project with School Level Cloud Proxy Server Deployment**
Kaya F., EKEN S., İlhan Z., KAVAK A., SAYAR A., Kocasarac U., ŞAHİN S.
IEEE 3rd Symposium on Network Cloud Computing and Applications (NCCA), Rome, Italy, 5 - 07 February 2014, pp.133-136
- XXXII. **Comparison of number formats on FPGA based OFDM modem architecture**
ŞAHİN S., KAVAK A., ÇAVUŞLU M. A.
2013 21st Signal Processing and Communications Applications Conference (SIU), Haspolat, Turkey, 24 - 26 April 2013
- XXXIII. **DIFFERENTIATING VOICE AND DATA TRAFFIC USING STATISTICAL PROPERTIES**
Buyukkayhan A. S. , KAVAK A., Yaprak E.
10th International Conference on Electronics, Computer and Computation (ICECCO), Ankara, Turkey, 7 - 09 November 2013, pp.76-79
- XXXIV. **Analyzing Distributed File Synchronization Techniques for Educational Data**
EKEN S., KAYA F., İlhan Z., SAYAR A., KAVAK A., Kocasarac U., ŞAHİN S.
10th International Conference on Electronics, Computer and Computation (ICECCO), Ankara, Turkey, 7 - 09 November 2013, pp.318-321
- XXXV. **Dekorasist : Bina İçı Dekorasyona Yönelik Öneri Sistemi**
KAYA F., Yıldız G., KAVAK A.
Uluslararası Katılımlı XIV. Ulusal Biyoistatistik Kongresi, Kayseri, Turkey, 4 - 07 September 2012
- XXXVI. **Using OPNET for performance evaluation of modified SSLE in sensor networks Algılayıcı ağlarda OPNET kullanarak iyileştı rılmıř STKB tekniđinin başarı m deđerlendirmesi**
Küçük K., Bandırmalı N., Kavak A.
2012 20th Signal Processing and Communications Applications Conference, SIU 2012, Fethiye, Mugla, Turkey, 18 - 20 April 2012
- XXXVII. **A mobile application and web recommendation system for assisting indoor decoration**
GÜREL Y., KAYA F., KAVAK A.

2012 International Symposium on Innovations in Intelligent Systems and Applications, Trabzon, Turkey, Turkey, 2 - 04 July 2012

- XXXVIII. **MODELING OF THE MODIFIED SSLE IN OPNET FOR LARGE SCALE WIRELESS SENSOR NETWORKS**
KÜÇÜK K., Bandirmali N., KAVAK A.
5th Mosharaka International Conference on Communications, Computers and Applications (MIC-CCA), İstanbul, Turkey, 12 - 14 October 2012, pp.53-58
- XXXIX. **MIMO OFDM Sistemlerde Yapay Sinir Ağı ile Hat Adaptasyonu**
YİĞİT H., KAVAK A.
Akıllı Sistemlerde Yenilikler ve Uygulamaları Sempozyumu (ASYU 2010), Kayseri, Turkey, 21 - 24 June 2010, pp.30-34
- XL. **Adaptation Using Neural Network in Frequency Selective MIMO OFDM Systems**
YİĞİT H., KAVAK A.
IEEE 5th International Symposium on Wireless Pervasive Computing (ISWPC 2010), Modena, Italy, 5 - 07 May 2010, pp.390-394
- XLI. **A New Wireless Sensor Networks Localization Scheme with Antenna Arrays**
KÜÇÜK K., KAVAK A., YİĞİT H., ÖZDEMİR C.
14th European Wireless Conference (EW 2008), Prague, Czech Republic, 22 - 25 June 2008, pp.473-478
- XLII. **System Generator Design Yöntemleri Kullanılarak FPGA Tabanlı Sdr Gerçekleştirimi**
ŞAHİN S., KAVAK A.
3. Haberleşme Teknolojileri ve Uygulamaları Sempozyumu, Turkey, 01 April 2009
- XLIII. **On Connectivity Analysis of Smart Antenna Capable Wireless Sensor Networks**
KAVAK A., KÜÇÜK K.
6th IEEE International Symposium on Wireless Communication Systems (ISWCS 09), Siena, Italy, 7 - 10 September 2009, pp.6-7
- XLIV. **Which number format to use for baseband Wimax Modem implementation on an FPGA**
ŞAHİN S., DİKMEŞE Ş., KAVAK A.
2008 IEEE 16th Signal Processing, Communication and Applications Conference, Aydın, Turkey, Turkey, 20 - 22 April 2008
- XLV. **Smart Antenna based Location Estimation for Wireless Sensor Networks**
Küçük K., Kavak A., Yiğit H., Özdemir C.
IEEE 16th Signal Processing, Communication and Applications Conference (SIU 2008), Aydın, Turkey, 20 - 22 April 2008, pp.50-53
- XLVI. **Performance Improvement via AR Modeling based Linear Prediction for TDD MIMO Systems**
YİĞİT H., KAVAK A., KÜÇÜK K., TÜRKBOYLARI M.
IEEE 16th Signal Processing, Communication and Applications Conference (SIU 2008), Aydın, Turkey, 20 - 22 April 2008, pp.80-83
- XLVII. **A novel localization technique for wireless sensor networks using adaptive antenna arrays**
KÜÇÜK K., KAVAK A., YİĞİT H., Ozdemir C.
IEEE Radio and Wireless Symposium, Florida, United States Of America, 22 - 24 January 2008, pp.483-484
- XLVIII. **A smart antenna module using OMNeT++ for wireless sensor network simulation**
KÜÇÜK K., KAVAK A., YİĞİT H.
4th IEEE International Symposium on Wireless Communication Systems 2007, ISWCS'07, Trondheim, Norway, 16 - 19 October 2007, pp.747-751
- XLIX. **Kablosuz Algılayıcı Ağlar İçin Akıllı Anten Tabanlı Sektörel Tarama Protokolünün OMNeT ile Modellenmesi**
KÜÇÜK K., YİĞİT H., KAVAK A.
III. İletişim Teknolojileri Ulusal Sempozyumu (İTUSEM 2007), Adana, Turkey, 18 - 19 October 2007, pp.109-114
- L. **Genetic Algorithm and Simulated Annealing for Dynamic OVFS Code Allocation in WCDMA Networks**
Mustafa K., KAVAK A.
IEEE 15th Signal Processing and Communications Applications, 2007. SIU 2007., Eskişehir, Turkey, 11 - 13 June 2007, pp.1-4

- LI. **Farklı Yayılım Senaryoları İçin Kablosuz MIMO Kanallarında Kapasite Analizi**
YİĞİT H., KÜÇÜK K., KAVAK A.
III. İletişim Teknolojileri Ulusal Sempozyumu (İTUSEM 2007), Adana, Turkey, 18 - 19 June 2007, pp.253-256
- LII. **MATLAB GUI based sensor array processing estimation methods and performance analysis simulator**
KÜÇÜK K., KELEBEKLER E., KAVAK A.
IEEE 15th Signal Processing and Communications Applications Conference, Eskişehir, Turkey, 11 - 13 June 2007, pp.298-299
- LIII. **A new dynamic OVFSF code allocation method based on adaptive simulated annealing genetic algorithm (ASAGA)**
Karakoc M., KAVAK A.
18th IEEE International Symposium on Personal, Indoor and Mobile Radio Communication, Athens, Greece, 3 - 07 September 2007, pp.2923-2924
- LIV. **Stochastic methods for dynamic OVFSF code assignment in 3G networks**
Karakoc M., KAVAK A.
4th International Symposium on Stochastic Algorithms - Foundations and Applications, Zürich, Switzerland, 13 - 14 September 2007, vol.4665, pp.142-143
- LV. **Evaluation of FPGA-based software radio beamformers for 3G wireless**
Dikmeşe S., KAVAK A., ŞAHİN S., KÜÇÜK K., Dincer H.
IEEE Radio and Wireless Symposium, California, United States Of America, 7 - 12 January 2007, pp.1-4
- LVI. **A smart antenna module using OMNeT plus plus for wireless sensor network simulation**
KÜÇÜK K., KAVAK A., YİĞİT H.
4th International Symposium on Wireless Communication Systems, Trondheim, Norway, 17 - 19 October 2007, pp.489-493
- LVII. **Using diploidy genetic algorithm for dynamic OVFSF code allocation in WCDMA networks**
Karakoc M., Soke A., KAVAK A.
IEEE Radio and Wireless Symposium, California, United States Of America, 7 - 12 January 2007, pp.293-296
- LVIII. **Akıllı Anten Algoritmalarının IEEE 754 Kayan Sayı Formatı ile FPGA Tabanlı Gerçeklenmesi ve Performans Analizi**
Çavuşlu M. A. , Dikmeşe Ş., ŞAHİN S., KÜÇÜK K., KAVAK A.
URSI Türkiye 2006 3. Bilimsel Kongresi, Ankara, Turkey, 6 - 08 September 2006, pp.610-612
- LIX. **Akıllı Anten Algoritmalarının IEEE 754 Kayan Sayı Formatı ile FPGA Tabanlı Gerçeklenmesi ve Performans Analizi**
ÇAVUŞLU M. A. , DİKMEŞE Ş., ŞAHİN S., KÜÇÜK K., KAVAK A.
III. URSI-Türkiye 2006 Bilimsel Kongresi, Turkey, 01 September 2006
- LX. **A comparative study of antenna array algorithm implementations using FPGA and DSP for cdma2000**
ŞAHİN S., DİKMEŞE S., KÜÇÜK K., KAVAK A.
3rd International Symposium on Wireless Communication Systems (ISWCS 2006), Valencia, Spain, 5 - 08 September 2006, pp.714-715
- LXI. **C or Assembly Coding on Floating Point Digital Signal Processors for Software Radio Implementation of a Beamformer**
KÜÇÜK K., KAVAK A., KARAKOÇ M., YİĞİT H.
International Informatics Congress (BİLTEK 2005), Eskişehir, Turkey, 10 - 12 June 2005, pp.459-466
- LXII. **Design and hardware implementation of a novel smart antenna algorithm using TI DSPs**
Kucuk K., KARAKOC M., Kavak A., Yigit H.
2nd International Symposium on Wireless Communications Systems (ISWCS 2005), Siena, Italy, 5 - 07 September 2005, pp.596-600
- LXIII. **Autoregressive and Adaline Network Modeling for Wireless Communications**
YİĞİT H., KAVAK A., ERTUNÇ H. M.
International Conference on Signals and Electronic Systems (ICSES 2004), Poznan, Poland, 13 - 15 September 2004, pp.127-130
- LXIV. **Zaman Bölüşümlü Çift Yönlü Akıllı Anten Sistemleri İçin Uyarlamalı Doğrusal Tahmin Tabanlı Hüzme**

Şekillendirme

YİĞİT H., KAVAK A.

II. URSI-Türkiye Bilimsel Kongresi (URSI 2004), Ankara, Turkey, 8 - 10 September 2004, pp.84-86

- LXV. **Using Autoregressive and Adaline Neural Network Modeling to Improve Downlink Performance of Smart Antennas**
YİĞİT H., KAVAK A., ERTUNÇ H. M.
Proceedings of the IEEE International Conference on Mechatronics, 3 - 05 June 2004
- LXVI. **Using Autoregressive and Adaline Neural Network Modeling to Improve Downlink Performance of Smart Antennas**
YİĞİT H., KAVAK A., ERTUNÇ H. M.
IEEE International Conference on Mechatronics (ICM 2004), İstanbul, Turkey, 3 - 05 June 2004, pp.165-170
- LXVII. **Performance Improvement via AR Modeling based Linear Prediction for Time Division Duplex TDD Smart Antenna Systems**
YİĞİT H., KAVAK A.
IEEE 12th Signal Processing and Communications Applications Conference (SIU 2004), Kuşadası, Aydın, Turkey, 28 - 30 April 2004, pp.200-203
- LXVIII. **Üçüncü Nesil WCDMA Sistemlerinde OVSF Kod Tahsisi Yöntemleri**
DEVECİ TOPAL A., KAVAK A.
International Twelfth Turkish Symposium on Artificial Intelligence and Neural Networks, Çanakkale, Turkey, 2 - 04 July 2003
- LXIX. **Simulation and performance comparison of smart antenna algorithms for 3G wireless communications**
Karakoc M., Kavak A., Yigit H.
International Conference on Computer, Communication and Control Technologies (CCCT 03)/9th International Conference on Information Systems Analysis and Synthesis (ISAS03), Florida, United States Of America, 31 July - 02 August 2003, pp.45-50
- LXX. **Interference analysis and capacity for mixture of forward link cdma2000-1X and 1xEV-DV voice traffic**
Kavak A., Cleveland J.
IEEE Radio and Wireless Conference (RAWCON 2003), Massachusetts, United States Of America, 10 - 13 August 2003, pp.23-26
- LXXI. **Forward link capacity analysis of 3G CDMA wireless systems with adaptive antenna arrays**
Kavak A., Lim J., Cleveland J.
54th IEEE Vehicular Technology Conference (VTC 2001), New-Jersey, United States Of America, 7 - 11 October 2001, pp.2063-2066
- LXXII. **GPS multipath fade measurements to determine L-band ground reflectivity properties**
KAVAK A., Xu G., Vogel W. J.
Proceedings of the Twentieth NASA Propagation Experimenters Meeting (NAPEX 20) and the Advanced Communications Technology Satellite (ACTS) Propagation Studies Miniworkshop, Alaska, United States Of America, 4 - 06 June 1996, pp.257-263

Supported Projects

KAVAK A., Project Supported by Higher Education Institutions, 2019- BİLGİSAYAR AĞLARI VE HABERLEŞME ARAŞTIRMA LABORATUVARI, 2019 - 2020

KAVAK A., Project Supported by Other Private Institutions, Akıllı Harita Tabanlı Görsel Veri Analiz Platformu, 2015 - 2016

KAVAK A., TUBITAK Project, Giyilebilir ve Sabit Platformlu İleri Düzey Özelliklere Sahip Uzaktan Hasta İzleme Sistemi, 2014 - 2016

KAVAK A., Project Supported by Other Private Institutions, Depo ve Stoklama Takip Yazılımı, 2013 - 2015

SAYAR A., KAVAK A., ŞAHİN S., TUBITAK Project, Yerel Bulut Sunucu Tabanlı Etkin Bir Veri Saklama Ve İçerik Dağıtım Yönetimi Sistemi, 2013 - 2015

KAVAK A., TUBITAK Project, Konutlar İçin Yönetilebilir Akıllı Alarm Sistemi, 2012 - 2014

KAVAK A., TUBITAK Project, ALTHİS Kablosuz Algılayıcı Tabanlı Uzaktan Hasta İzleme Sistemi Geliştirilmesi, 2011 - 2014

KAVAK A., Project Supported by Higher Education Institutions, Çoklu-Giriş Çoklu-Çıkış (MIMO) Sistemlerde Kanal Tahmini ve Performans İyileştirmesi, 2010 - 2012

KAVAK A., TUBITAK Project, Kablosuz Algılayıcı Ağlarda Akıllı Anten Kullanan Sektörel Tarama Tabanlı Konum Tahmini OPNET ile Simülasyon Çalışması Tübitak EEEAG 109E138, 2008 - 2010

Yiğit H., Küçük K., Kavak A., Project Supported by Higher Education Institutions, Çoklu Alıcı Çoklu Verici MIMO Anten Sistemli RF Alıcı Verici Ünitesi Geliştirilmesi, 2005 - 2007

KAVAK A., TUBITAK Project, Üçüncü Nesil Kablosuz Haberleşme Sistemleri için Smart Anten Algoritması Geliştirilmesi ve Prototip Üzerinde Uygulanması Tübitak EEEAG 102E015, 2002 - 2004

KAVAK A., Other Supported Projects, Development of architecture and requirements for cdma2001 1X base transceiver station, 2000 - 2001

Patent

Kavak A., System and Method For Providing an Improved Channel Encoder in a Digital Data Communications System, Patent, CHAPTER H Electricity, Registration in Multiple Countries, 2006

Kavak A., Practical M-ary Demodulator Using Hard Decision Circuit and Method of Operation for Use in a CDMA Wireless Network Base Station, Patent, CHAPTER H Electricity, Registration in Multiple Countries, 2006

Kavak A., Practical M-ary Demodulator and Method of Operation For Use in a CDMA Wireless Network Base Station, Patent, CHAPTER H Electricity, Registration in Multiple Countries, 2006

Kavak A., System and method for improving performance of an adaptive antenna array in a vehicular environment, Patent, CHAPTER H Electricity, Registration in Multiple Countries, 2006

Kavak A., Apparatus and Method for Allocating Walsh Codes to Access Terminals in an Adaptive Antenna Array CDMA Wireless Network, Patent, CHAPTER H Electricity, Registration in Multiple Countries, 2002

Activities in Scientific Journals

IEEE Access, Assistant Editor, 2019 - Continues

Turkish Journal Of Electrical Engineering And Computer Sciences, Committee Member, 2013 - 2014

Scientific Research / Working Group Memberships

Tübitak Teydeb Mobil İletişim Çpdk, Kocaeli University, Turkey, www.tubitak.gov.tr, 2014 - 2015

Tübitak Ardeb Mobil İletişim Çpdk, Kocaeli University, Turkey, tubitak.gov.tr, 2014 - 2015

Citations

Total Citations (WOS):221

h-index (WOS):9