



Prof.Dr. Adnan KAVAK

1-KİŞİSEL BİLGİLER:

Kocaeli Üniversitesi
Bilgisayar Mühendisliği Bölümü
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Kablosuz Haberleşme ve Bilişim Sistemleri Araştırma Birimi Müdürü
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2- EĞİTİM VE AKADEMİK ÜNVANLAR

Derece	Bölüm/Program	Üniversite/Kuruluş	Yıl
Lisans	Elektrik-Elektronik Mühendisliği Alt Alan: Bilgisayar-Telekomunikasyon	Orta Doğu Teknik Üniversitesi	1992
Y. Lisans (MS)	Elektrik-Bilgisayar Mühendisliği	The University of Texas at Austin, Texas, ABD	5/1996
Doktora (Ph.D)	Elektrik-Bilgisayar Mühendisliği	The University of Texas at Austin, Texas, ABD	12/2000
Doçent	Mühendislik/ Elektrik-Elektronik Müh.	Üniversitelerarası Kurul	5/2005
Profesör Dr.	Kocaeli Üniversitesi, Bilgisayar Mühendisliği, Bilgisayar Bilimleri	Kocaeli Üniversitesi	9/2011

3- MESLEKİ DENEYİM:

Görev Unvanı	Görev Yeri	Yıl
Bölüm Başkanı	Kocaeli Üniversitesi, Bilgisayar Müh. Bölümü	03/2013-...
Anabilim Dalı Başkanı	Kocaeli Üniversitesi, Bilgisayar Müh. Bölümü, Bilgisayar Bilimleri ABD	09/2011-...
Profesör	Kocaeli Üniversitesi, Bilgisayar Müh. Bölümü, Bilgisayar Bilimleri ABD	09/2011-...
Ziyaretçi Öğretim Üyesi	University of Texas at Austin, Department of Electrical and Computer Engineering, Austin, Texas, ABD	09/2008-5/2009
Ziyaretçi Araştırmacı	University of Texas at Dallas, Department of Electrical Engineering, Dallas, Texas, ABD	06/2007-09/2007
Müdür	Kocaeli Üniv. Kablosuz Hab. Ve Bilşim Sist. Araştırma Birimi	3/2005-
Doçent	Kocaeli Üniversitesi, Bilgisayar Müh. Bölümü	5/2005-9/2011
Bölüm Başk.Yard.	Kocaeli Üniversitesi, Bilgisayar Müh. Bölümü	3/2006-9/2006
Yrd.Doç.	Bilgisayar Mühendisliği Bölümü., Mühendislik Fakültesi, Kocaeli Üniversitesi	2003-2005
Bölüm Başk.Yard.	Kocaeli Üniversitesi, Elektronik-Bilgisayar Eğt. Böl., Teknik Eğt. Fakültesi	10/2001-5/2003
Anabilim Dalı Başkanı	Kocaeli Üniversitesi, Elektronik-Bilgisayar Eğt. Böl., Bilgisayar Sist. ABD.	10/2001-5/2003
Yrd.Doç.	Kocaeli Üniversitesi, Elektronik-Bilgisayar Eğt. Böl., Teknik Eğt. Fakültesi	2001-2003
Araştırma Mühendisi (Sr. Research Engineer)	Wireless Systems Lab. Samsung Telecommunications America, Richardson, Texas, ABD	2000-2001
Arş.Gör.	Kocaeli Üniversitesi (Yurtdışı Görevli)	1994-2001
Uydu Kontrol ve Haberleşme Müh.	Türk Telekom, Türksat Uydu Kontrol Merkezi, Gölbaşı, Ankara	1993-1994

4) YÖNETİLEN YÜKSEK LİSANS VE DOKTORA TEZLERİ:

A) Yüksek Lisans:

9) Korhan Sözen, "MPLS Yönlendirme Kullanan Omurga Ağ Yapısının Performans Değerlendirmesi", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2013.

8) Fidan Kaya, "İşbirlikçi Filtrelemeye Dayalı Web Tabanlı Öneri Sistemi Geliştirilmesi", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2012.

7) Gürel Yıldız, "Renk Analizi Tabanlı Öneri Sistemleri için Mobil Uygulama Geliştirme", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2012.

6) Gökalp Gürbüz, "Yapay Zeka Yöntemleriyle Oyun Geliştirme", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2008.

5) R. Mutlu Biçer, "Kablosuz Algılayıcının Modül tasarımı", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2008.

4) Halil Yiğit, "Zaman Bölüşümlü Çift Yönlü Akıllı Anten Sistemlerinde Vektör Kanal Tahmini ile Performans İyileştirilmesi", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2005

3) Kerem Küçük, "Cdma2000 Yukarı Bağlantı Kanalı İçin Akıllı Anten Algoritmalarının Dijital Sinyal İşlemciler Üzerinde Yazılım Radyo İle Gerçekleştirilmesi", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2005

2) Mustafa Karakoç, "Üçüncü Nesil Kablosuz CDMA için Akıllı Anten Algoritmaları", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2004.

1) Arzu Deveci Topal, "Üçüncü Nesil WCDMA Sistemlerinde Dinamik Kod Tahsisi ", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2003.

B) Doktora:

4) Suhap Şahin, "FPGA Tabanlı OFDM Modem Gerçeklenmesi", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2010.

3) Halil Yiğit, "Çok girişli çok çıkışlı (MIMO) sistemlerde kanal tahmini ve hat uyarlaması ile başarımla iyileştirilmesi", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2010.

2) Kerem Küçük, "Akıllı anten sistemi kullanan kablosuz algılayıcı ağlarda bağlantı analizi ve konum belirleme algoritması ", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2010.

1) Mustafa Karakoç, "İleri nesil kablosuz sistemlerde dinamik kaynak tahsisi ve kanal kestirimi", Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, 2008.

5- YAYINLAR:

A)Uluslararası Hakemli Dergi Yayınları (SCI-E, EI Kapsamında)

A28) Kerem Küçük, **Adnan Kavak**, "Connectivity Analysis for Wireless Sensor Networks with Antenna Array Integrated Central Node", Wireless Personal Communications, vol 72, pp. 1361-1371, 2013.

A27) Kerem Kucuk, Necla Bandirmali, **Adnan Kavak**, and Sedat Atmaca "A Modified SSLE and Its Implementation in a Multi-hop Wireless Sensor Networking Environment Using Opnet", Transactions of the Society for Modeling and Simulation International, vol 89, no. 6, pp. 746-761, 2013.

A26) Fidan Kaya, Gürel Yıldız, **Adnan Kavak**, "A Mobile and Web Application Based Recommendation System Using Color Quantization and Collaborative Filtering", accepted, Turkish Journal of Electrical Engineering and Computer Science (TÜBİTAK), Online, 2013.

A25) Halil Yigit, **Adnan Kavak**, "A Learning approach in link adaptation for MIMO-OFDM systems ", Turkish Journal of Electrical Engineering and Computer Science (TÜBİTAK), pp. 1465-1478, vol. 21, 2013.

A24) Halil Yigit, **Adnan Kavak** , "Analytical Derivation of 2x2 MIMO Channel Capacity in Terms of Multipath Angle Spread and Signal Strength", Frequenz Journal of RF-Engineering and Telecommunications, (66) 3-4, 97-100, 2012.

A23) Sener Dikmese, **Adnan Kavak**, Kerem Kucuk, Suhap Sahin and Ali Tangel, "FPGA Based Implementation and Comparison of Beamformers for CDMA2000" Wireless Personal Communications (Springer), vol. 57, no.2, Pages: 233-253, 2011.

A22) Kucuk, K; **Kavak, A.**, "Scalable location estimation using smart antennas in wireless sensor networks", Ad-Hoc Networks (ELSEVIER), Volume: 8 Issue: 8 Pages: 889-903, 2010

A21) Dikmese, S; **Kavak, A;** Kucuk, K, Sahin S; Tangel A; Dincer H; "Digital signal processor against field programmable gate array implementations of space-code correlator beamformer for smart antennas", IET Microwaves Antennas and Propagation, Volume: 4 Issue: 5 Pages: 593-599, 2010

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A19) Kucuk K; **Kavak A.** , Karakoc M, Yigit H; and Ozdemir C., "A Practical Space-Code Correlator Receiver for DSP Based Software Radio Implementation in CDMA2000", Wireless Personal Communications (Springer), vol. 49, no.2, Pages: 245-261, 2009.

A18) Karakoc M. and **Kavak A.**, "Genetic Approach for Dynamic OVFS Code Allocation in 3G Wireless Networks", Applied Soft Computing (Elsevier), Vol. 9, No. 1, pages 348-361, Jan. 2009.

A17) Kavak A., Karakoc M., Torlak M., and Ozdemir C., "Interference Analysis and Capacity for Forward Link 3G CDMA Network with Adaptive Antennas," *Wireless Communications and Mobile Computing (Wiley)*, Vol. 8, no. 4, pages 531-543, May 2008.

A16) Karakoc M., and **Kavak A.**, "Performance of Adaptive Antenna Array Based Dynamic OVSF Code Assignment for Multipath Propagation and Multicell Environment", *Frequenz*, vol. 61, pages 254-258, 2007.

A15) Kavak A., and Karakoc M., "Smart Antenna Based OVSF Code Assignment for WCDMA Networks" *Wireless Personal Communications (Springer)*, Vol. 43, no. 4, pages: 1761-1766, December 2007.

A14) Yigit E., Demirci S., Ozdemir C. and, **Kavak A.**, "A Synthetic Aperture Radar based Focusing Algorithm for B-Scan Ground Penetrating Radar Imagery", *Microwave and Optical Technology Letters (Wiley)*, Volume 49, Issue 10, Pages: 2534-2540, October 2007.

A13) Ozdemir C., Demirci S., Yigit E. And, **Kavak A.**, "A Hyperbolic Summation Method to Focus B-Scan Ground Penetrating Radar Images: Application with a Stepped Frequency System", *Microwave and Optical Technology Letters (Wiley)*, Volume 49, Issue 3, Pages: 671-676, March 2007.

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A9) Yigit H, **Kavak A.**, and Ertunc, H.M, " Using Adaline Neural Network for Performance Improvement of Smart Antennas in TDD Wireless Communications," *IEEE Transactions on Neural Networks*, vol. 16, no. 6, pages 1616-1625, November 2005.

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A7) Yigit, H, **Kavak A.**, and Ertunc, H.M, " Autoregressive and Neural Network Based Predictions for Downlink Beamforming," *Lecture Notes in Computer Science (LNCS)*, vol. 3174, pages 254-261, 2004

A6) Karakoc, M. and **Kavak A.**, "Evaluation of Smart Antenna Algorithms for cdma2000 Reverse Link," *Lecture Notes in Computer Science (LNCS)*, vol. 3042, pages 1360-1365, May 2004.

A5) Kavak A., "Spatial and Temporal Fading Correlations of a Uniform Circular Array Smart Antenna in Urban Vehicular Propagation," *Microwave and Optical Technology Letters*, vol. 40, no. 1, pages 61-65, Jan. 5, 2004.

A4) Kavak A., Yang, W., Xu. G., and Vogel W.J., "Characteristics of Vector Propagation Channels in Dynamic Mobile Scenarios," IEEE Transactions on Antennas and Propagation, vol.39, no.12, pages 1695-1702, December 2001.

A3) Kavak A., and Xu. G., "Mobile Transmit Diversity for Base Station Antenna Arrays," Microwave and Optical Technology Letters, vol. 30, no. 2, pages 95-97, July 20, 2001.

A2) Kavak A., Torlak M., Vogel W.J., and Xu. G., "Vector Channels for Smart Antennas: Measurements, Statistical Modeling, and Directional Properties in Outdoor Environments," IEEE Transactions on Microwave Theory and Techniques, vol. 48, no. 6, pages 930-937, June 2000.

A1) Kavak A., Vogel W.J., and Xu. G. "Using GPS to Measure Ground Complex Permittivity," IEE Electronics Letters, vol. 34, no. 8, pages 254-255, February 1998

B) Uluslararası Konferans Bildirileri:

B47) Kerem Kucuk, Necla Bandırmalı, **Adnan Kavak** , "Modeling of the Modified SSLE in Opnet for large Scale Wireless Sensor Networks", The 5th International Conference on Communications, Computers and Applications (MIC-CCA2012), pp. 41-46, 2012.

B46) Fidan Kaya, Gürel Yıldız, Adnan Kavak "Evaluation of Collaborative Filtering Techniques for Mobile and Web Application Based Recommendation System, , ICECCO 2012, pp.315-319, Nov. 2012, Ankara, Turkey.

B45) - Kerem Küçük, Necla Bandırmalı, Adnan Kavak "Using OPNET for Performance Evaluation of Modified SSLE in Sensor Networks", IEEE 20th Signal Processing and Communications Applications SIU 2012, April 2012, Fethiye, Turkey.

B44) Yıldız G., Kaya F., **Kavak A.**, "A mobile application and web recommendation system for assisting indoor decoration"2012 International Symposium on Innovations in Intelligent Systems and Applications (INISTA), July 2012, Trabzon, Turkey.

B43) Yigit H. and **Kavak A.**, "Adaptation using neural network in frequency selective MIMO-OFDM systems", 2010 5th IEEE International Symposium on Wireless Pervasive Computing (ISWPC),5-7 May 2010 , page(s): 390 - 394 Modena, Italy.

B42) Kavak A., Kucuk, K. "On connectivity analysis of smart antenna capable wireless sensor networks", IEEE ISWCS 2009. 6th International Symposium on Wireless Communication Systems, pp. 6-10, 2009, Siena, Italy.

B41) Kucuk K., Kavak A., Yigit H., Ozdemir C., "A New wireless sensor network localization scheme with antenna arrays," IEEE European Wireless Conference (IEEE EW 2008), pp. 1-6, 2008.

B40) Yigit H., **Kavak A.**, Kucuk K., Turkboylari M., "Performance improvement via AR modeling based linear prediction for TDD-MIMO systems", IEEE 16th Signal Processing, Communication and Applications Conference, (SIU 2008), pp. 1-4, 2008.

B39) Sahin S., Dikmese S., **Kavak A.**, "Which number format to use for baseband Wimax Modem implementation on an FPGA ?", IEEE 16th Signal Processing,

Communication and Applications Conference (SIU 2008), pp. 1-4, 2008.

B38) Kucuk K., **Kavak A.**, Yigit H., and Ozdemir C., "Smart antenna based location estimation for wireless sensor networks", IEEE 16th Signal Processing and Communications Applications (SIU 2008), 2008.

B37) Kucuk K, **Kavak A.**, Yigit H., and Ozdemir C., "A Novel Localization Technique for Wireless Sensor Networks Using Adaptive Antenna Arrays", Proc. IEEE RWS 2008, pp. 483-486, Jan 2008, Orlando, FL.

B36) Karakoc, M. and **Kavak A.**, "Genetic Algorithm and Simulated Annealing for Dynamic OVSF Code Allocation in WCDMA Networks", IEEE 15th Signal Processing and Communications Applications, (SIU 2007), pp. 1-4, 2007.

B35) Kucuk K., Kelebekler E., and; **Kavak, A.**, "MATLAB GUI Based Sensor Array Processing Estimation Methods and Performance Analysis Simulator", IEEE 15th Signal Processing and Communications Applications, (SIU 2007), 2007.

B34) Karakoc M., and **Kavak A.**, "A New Dynamic OVSF Code Allocation Method Based on Adaptive Simulated Annealing Genetic algorithm (ASAGA)" Proc. IEEE Personal Indoor Mobile Radio Comm Conf. (PIMRC 2007), September 2007, Athens, Greece.

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B32) Dikmese S., **Kavak A.**, Sahin S., Kucuk K., and Dincer H., "Evaluation of FPGA-based Software Radio Beamformers for 3G Wireless", Proc. IEEE Radio and Wireless Symposium 2007 (RWS 2007), pp. 153-156, Jan. 2007, USA

B31) Karakoc M., Soke A., **Kavak A.**, "Using Diploidy Genetic Algorithm for Dynamic OVSF Code Allocation in WCDMA Networks", Proc. IEEE Radio and Wireless Symposium 2007 (RWS 2007), pp. 15-18, Jan. 2007, USA

B30) Kucuk K, **Kavak A.**, Sahin S., Dikmese S., "A Comparative Study of Antenna Array Algorithms Implementations Using FPGA and DSP for cdma2000", Proc. IEEE IEEE Int. Symposium on Wireless Comm. Sys. (IEEE ISWCS 2006), Valencia, Spain, 2006.

B29) Karakoç M. and **Kavak A.**, "Dynamic Resource Allocation for 3G Systems: OVSF Code Assignment Strategies", Proc. 17th World Wireless Research Forum (WWRF), Heidelberg, Germany, November 2006.

B28) Kececioglu B., Torlak M., **Kavak A.**, "Performance of Optimum Combining with Channel Estimation Errors," Proc. IEEE Vehicular Tech. Conf. (VTC 2005 Fall), pp. 2230-2234, Dallas, TX, USA, Sep. 25-28, 2005.

B27) **Kavak A.**, Karakoc M., Cleveland J.R., Demiray E., "Dynamic Allocation of OVSF Codes to Access Terminals with an Adaptive Antenna Array," Proc. IEEE Personal Indoor and Mobile Radio Comm. Conf. (PIMRC 2005), pp. 21-25, Berlin, Germany, September 11-11 2005.

B26) Kucuk K., **Kavak A.**, Karakoc M., Yigit H., "Design and Hardware Implementation of a Novel Smart Antenna Algorithm Using TI DSPs," Accepted IEEE International Symposium on Wireless Comm. Sys. (ISWCS 2005), pp. 596-600, Siena, Italy, September 5-8 2005.

B25) Küçük, K., **Kavak A.**, Karakoç M., and Yigit H., "C or Assembly Coding on Floating Point Digital Signal Processors for Software Radio Implementation of a Beamformer?", Proc. Biltek 2005 International Informatics Conference, 9-12 June 2005, Eskisehir, Turkey, pp. 459-466.

B24) Demir A.K, Küçük, K., and **Kavak A.**, "Software Synthesis and Development Environments for Embedded Sensor Networks", Proc. Biltek 2005 International Informatics Conference, 9-12 June 2005, Eskisehir, Turkey, pp. 245-254.

B23) Karakoc M., **Kavak A.**, Ozdemir C., "Optimization of Array Topology and Capacity for 3G CDMA Network with Adaptive Antennas," In Proc. IST Mobile Summit 2005, Dresden, Germany, June 2005.

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B21) Küçük K., Karakoç M., **Kavak A.**, "C Versus Assembly Implementation of Smart Antenna Beamformers on Floating Point DSPs," Proc. International Conference on Signals and Electronics Systems (ICES'04), pp. 285-288, September 13-15 2004, Ponzan, Poland.

B20) Yigit H., **Kavak A.**, and Ertunc, H.M., "Autoregressive and Adaline Network Modeling for Wireless Communications," Proc. International Conference on Signals and Electronics Systems (ICES'04), pp. 127-130, September 13-15 2004, Ponzan, Poland.

B19) Karakoç M., **Kavak A.**, "Intelligent Base Stations for 3G CDMA: Downlink Capacity Analysis and Optimization," Proc. International Conference on Knowledge System, IKS 04, August 2004, Assos, Canakkale, Turkey.

B18) Yigit H., **Kavak A.**, and Ertunc H.M., "Using Autoregressive And Adaline Neural Network Modeling To Improve Downlink Performance of Smart Antennas," Proc. IEEE Int. Conference on Mechatronics (ICM'04), İstanbul, Turkey, pp. 165-170, June 3-5, 2004.

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B14) **Kavak A.**, Lim J., and Cleveland J. "Forward Link Capacity Increase with Adaptive Antenna Arrays In 3G Wireless CDMA," Proc. IEEE Vehicular Technology Conference (VTC 2001 Fall), vol. 4, pp. 2063-2066, October 2001.

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B1) Kavak A., Xu G., and Vogel W.J., "GPS Multipath Fade Measurements to Determine L-Band Ground Reflectivity Properties," Proc. 20th NASA Propagation Experimenters Meeting (NAPEX20), Jet Propulsion Lab., Fairbanks, AL, USA, pp. 257-263, June 1996.

C) Kitap Bölümleri

C2) Suhap Sahin, **Adnan Kavak**, Yasar Becerikli, and H. Engin Demiray "Implementation of Floating Point Arithmetic Using an FPGA", Mathematical Methods in Engineering Editör: K. Tas, J.A., Machado, and D. Baleanu, pp. 445-453, 2007 (Springer Book ISBN: 978-1-4020-5677-2).

C1) "Smart Antennas and Wireless LANs", (Garret Okamoto, Kasim 1998, Kluwer Academic Publisher) co-author of "Chapter 5: Experimental Setup and Chapter 6: Experimental Results"

D. Ulusal Bilimsel Toplantılarda Sunulan ve Bildiri Kitaplarında Basılan Bildiriler:

D11) M. Sırma, M. Yakut, A. Tangel, **A. Kavak** ve İ. Ertürk, "Taşma İletişim Kuralının OMNeT++ ile Benzetimi", URSI (UNION RADIO-SCIENTIFIQUE INTERNATIONALE) 3. Bilimsel Kongresi, sayfa 592-594, Ankara, 6-8 Eylül 2006.

D10) M. Sırma, M. Yakut, A. Tangel, **A. Kavak** ve İ. Ertürk, "Kablosuz Algılayıcılar ve Ağlarının Tıbbi Bakımlarda Kullanılması", URSI (UNION RADIO-SCIENTIFIQUE INTERNATIONALE) 3. Bilimsel Kongresi, sayfa 195-197, Ankara, 6-8 Eylül 2006.

D9) Kerem Küçük ve **Adnan Kavak**, "Akıllı Antenler için DSP Tabanlı Uzay Kod Korelatör Algoritması Gerçeklenmesi Ve Performans Analizi", URSI (UNION RADIO-SCIENTIFIQUE INTERNATIONALE) 3. Bilimsel Kongresi, sayfa 613-615, Ankara, 6-8 Eylül 2006.

D8) Mustafa Karakoç ve **Adnan Kavak**, "Uyarlanabilir Anten Dizisi Kullanan Yeni Dinamik OVFS Kod Tahsis Algoritması", URSI (UNION RADIO-SCIENTIFIQUE INTERNATIONALE) 3. Bilimsel Kongresi, sayfa 598-600, 6-8 Eylül 2006.

D7) M.Ali Çavuşlu, Suhap Şahin, Kerem Küçük, Şener Dikmeşe, ve **Adnan Kavak**, "Akıllı Anten Algoritmalarının IEEE 754 Kayan Sayı Formatı ile FPGA Tabanlı Gerçeklenmesi ve Performans Analizi", URSI (UNION RADIO-SCIENTIFIQUE INTERNATIONALE) 3. Bilimsel Kongresi, sayfa 610-612, 6-8 Eylül 2006.

D6) Küçük K., Karakoç M., **Kavak A.**, "3. Nesil Haberleşme Sistemlerinde Kullanılan Akıllı Anten Algoritmalarının Yazılım Radyo Kullanılarak Gerçekleştirilmesi", II. URSI-TÜRKİYE'2004 BİLİMSEL KONGRESİ, sayfa 273-275, 8-10 Eylül 2004 Bilkent Üniversitesi, Ankara.

D5) Karakoç M., **Kavak A.**, "Üçüncü nesil kablosuz CDMA için uyarlamalı anten dizilerinin aşağı bağlantı parazit analizi ve sistem kapasitesi," II. URSI TÜRKİYE'2004 Bilimsel Kongresi, sayfa 270-273, 8-10 Eylül 2004, Bilkent Univ., Ankara.

D4) Yigit H., ve **Kavak A.**, "Zaman Bölüşümlü Çift Yönlü Akıllı Anten Sistemleri İçin Uyarlamalı Doğrusal Tahmin Tabanlı Hüzme Şekillendirme," II. URSI TÜRKİYE'2004 Bilimsel Kongresi, sayfa 84-86, 8-10 Eylül 2004, Bilkent Univ., Ankara.

D3) Karakoç M., **Kavak A.**, "Cdma2000 yukarı bağlantı için akıllı anten algoritmalarının değerlendirilmesi," II. URSI TÜRKİYE'2004 Bilimsel Kongresi, sayfa 297-300, 8-10 Eylül 2004, Bilkent Univ., Ankara.

D2) Küçük K., Karakoç M., **Kavak A.**, "Uyarlanabilir Akıllı Anten Algoritmalarının Yuvarlanırlık Nokta Dsp Üzerinde Gerçekleştirilmesi Ve Karşılaştırılması", II. URSI-TÜRKİYE'2004 BİLİMSEL KONGRESİ, sayfa 301-303, 8-10 Eylül 2004 Bilkent Üniversitesi, Ankara.

D1) **Kavak A.**, "Hızlı Bozunum Propogasyon Ortamındaki Düzgün Dairesel Dizili Smart Antenlerin Uzay ve Zaman Korelasyon Karakteristiği," Proc. URSI 2002 Türkiye, I. Ulusal Kongresi Kitapçığı, İstanbul, Türkiye, sayfa. 93-97, 18-20 Eylül 2002.

E) Diğer Yayınlar (Uluslararası Patentler)

E5) **Kavak, A.**, and Cleveland, J., "Apparatus And Method For Allocating Walsh Codes To Access Terminals In an Adaptive Antenna Array CDMA Wireless Network," Patent Application Published, United States Patent and Trademark Office, <http://www.uspto.gov>, pub. no. 20020146029.

E4) Lim, J., and **Kavak, A.** "System And Method For Providing an Improved Channel Encoder in a Digital Data Communications System," United States Patent and Trademark Office, patent no. 7085984, <http://www.uspto.gov>

E3) **Kavak, A.**, and Cleveland, J., "System And Method For Improving Performance of an Adaptive Antenna Array in a Vehicular Environment," United States Patent and Trademark Office, patent no: 7139593, <http://www.uspto.gov>.

E2) Cleveland, J., and **Kavak, A.**, "Practical M-ary Demodulator And Method of Operation For Use in a CDMA Wireless Network Base Station," United States Patent and Trademark Office, patent no. 7095810, <http://www.uspto.gov>.

E1) Cleveland, J., and **Kavak, A.**, "Practical M-ary Demodulator Using Hard Decision Circuit and Method of Operation for Use in a CDMA Wireless Network Base Station," United States Patent and Trademark Office, patent no. 7095809, <http://www.uspto.gov>

F) Tezler

Doktora Tezi: Vector Propagation Channel Studies For Smart Antenna Wireless Communication Systems, Advisor: Assoc.Prof.Dr. Guanghan Xu

Yüksek Lisans Tezi: Ground Specular Reflection Effects On Wireless Communications At L-Band And UHF Band, Advisors: Asst.Prof.Dr. Guanghan Xu ve Dr. Wolfhard J. Vogel

6-VERDİĞİ DERSLER:

A)Lisans Seviyesi (Undergraduate Level):

- Telecommunications-I (Güz 2002, Güz 2003, Electronics and Computer Ed. Dept)

- Digital Signal Processing (Güz 2002, Electronics and Computer Ed. Dept , Bahar 2008)
- Electronics I (Bahar 2003, Electronics and Computer Ed. Dept)
- Mathematical Appl. in Computer Science (Güz 2003, Güz 2005, Güz 2006, Güz 2007)
- Probability and Statistics (Güz 2003, Güz 2005)
- Digital Communications (Bahar 2004, Bahar 2005, Bahar 2006, Bahar 2007, Bahar 2008)
- Computer Organization and Architecture (Bahar 2005 DHO, Güz 2009, Güz 2010 KOU)
- Computer Networks-I (Güz 2006, Güz 2007)
- Computer Networks-II (Bahar 2007, Bahar 2008)
- Cellular Mobile Communications (Güz 2007 Yeditepe Univ.)
- GSM Systems (Bahar 2008 Yeditepe Univ.)
- Linear Systems and Signals (Güz 2008, University of Texas at Austin)
- Probability and Stochastic Process (Bahar 2009, University of Texas at Austin)

B)Yüksek Lisans Seviyesi (Graduate Level):

- Wireless Communications (Bahar 2002'den bu yana KOU'de, Bahar 2010, Bahar 2011 Yeditepe Üniv.)
- Mobile Network Protocols (Güz 2004-Turkish Naval Academy, Bahar 2005, Bahar 2006, Bahar 2007)
- Statistical and Array Signal Processing (Güz 2002, Güz 2003)
- Software Defined Radio (Güz 2005, Güz 2006, Güz 2007)
- Random Processes and Noise (Güz 2007 Yeditepe Univ.)
- Adaptive Signal Processing (Bahar 2008)
- Digital Signal Processing (Güz 2008, University of Texas at Austin)
- Digital Communications (Bahar 2009, University of Texas at Austin)
- Adv. Probability for Discrete Systems (Bahar 2010 ve Güz 2010 Yeditepe, Güz 2010 KOU)

7- PROJELER :

- "Mobil Ad-Hoc Ağlar için LTE Tabanlı Görüntü Aktarımı", **Danışman**, EUREKA, 2012-2013.
- "Tapu Kütüklerinin RFID ile Takibi Otomasyonu", **Danışman**, Tübitak-Teydeb 7120428, Sistem Bilg. Ltd., 2012-...
- "Konutlar İçin Yönetilebilir Akıllı Alarm Sistemi", **Danışman**, Tübitak-Teydeb 3120113, Milets. Ltd., 2012-...
- "Algılayıcı Tabanlı Uzaktan Hasta İzleme Sistemi", **Proje Yürütücüsü**, Tübitak-Teydeb 3110710, Milets. Ltd., 2011-...
- "Smart Wireless Fire Alarm and Monitoring System", TÜBİTAK-TEYDEB destekli 9080002 nolu EUREKA projesi, **Uzman Araştırmacı**, 2008-2010.
- "Kablosuz Algılayıcı Ağlarda Akıllı Anten Kullanan Sektörel Tarama Tabanlı Konum Tahmini: OPNET ile Simülasyon Çalışması", **Proje Yürütücüsü**, TÜBİTAK-EEEAG 109E138, 2009-2010.
- Üçüncü Nesil Kablosuz Haberleşme Sistemleri için Smart Anten Algoritması Geliştirilmesi ve Prototip Üzerinde Uygulanması, TÜBİTAK Projesi, EEEAG-102E015, KOÜ-2002/40 **Proje Yürütücüsü**, Tamamlandı
- "MIMO Sistemler için RF/IF Alıcı-Verici Ünitesi Geliştirilmesi" Kocaeli Üniversitesi, Bilimsel Araştırmalar Birimi, 2005/58, 2005-2007, **Proje Yürütücüsü**, Tamamlandı.

- "Development of architecture and requirements for cdma2001 1X base transceiver station", **Araştırma Mühendisi**, Wireless Systems Lab., Samsung Telecommunications

8- ÖDÜLLER, ÜYELİKLER, VE DİĞER AKADEMİK ÇALIŞMALAR:

Ödüller:

1. TÜBİTAK Bilimsel Yayınları Teşvik Ödülü (2001, 2004'den bu yana)
2. KOU Mühendislik Fakültesi Akademik Başarı Sertifikası (2004, 2008, 2010)
3. Marquis, Who'sWho in the World 2006 23rd Edition Kitabında Yer Almak (Dünyada Kim Kimdir?adlı ABD kaynaklı alanında başarılı olmuş liderler, politikacı, gazeteci, sivil toplum önderleri, bilim adamları ve akademisyenleri tanıtan Biyografi)
4. TÜBİTAK yurtdışı konferans desteği (Ağustos 2003)
5. Müstesna bilim adamı statüsü (O1) ,Amerikan Adalet Bakanlığı (2001)
6. Patent başvuru ödülü, Samsung Telecom America (2001)
7. Yaz okul harcı bursu, University of Texas at Austin (1999)
8. Mesleki kariyer geliştirme ödülü, University of Texas at Austin (Mayıs 1999)
9. En iyi 2. öğrenci makale ödülü, Graduate Engineering Council, University of Texas at Austin (1996)
10. YÖK Yurtdışı yüksek lisans ve doktora bursu (1994)

Bilimsel Kuruluşlara Üyelikler :

1. Institute of Electrical and Electronics Engineers (IEEE), 1996-
2. IEEE Communications Society, 1996-
3. IEEE Antennas and Propagation Society, 1996
4. IEEE Signal Processing Society, 1996
5. International Union of Radio Science (URSI), Fransa
6. URSI Türkiye Milli Komitesi, Komisyon B, F
7. Member, IASTED Technical Committee on Communications

Profesyonel Aktiviteler:

- ÇPDK member, TÜBİTAK-ARDEB EEEAG, 2013-...
 - ÇPDK member and coordinator, TÜBİTAK TEYDEB, 2013-..
 - Associate Editör, Turkish Journal of Electrical Engineering and Computer Science, 2011-...
 - Associate Editor, Research Letters in Communications, 2008-2010.
 - Associate Editor, Journal of electrical and Computer Engineering, 2010-....
 - TPC Member, Int. Conf. on Computer, Communications and Networks (ICCCN) 2008
 - TPC Member, IEEE Mosharaka Int. Conf. On Comm., Propagation, and Electronics (MIC CPE) 2008
 - TPC Member, 2nd Network and Security Symposium (Turkish) 2008.
 - Hakem ve İzleyici Tubitak-TEYDEB Projeler, 2006-....
 - Hakem, Qatar National Research Foundation research Projects (2009, 2010)
 - Panelist, TÜBİTAK 2010,2011 ARDEB Projeleri
 - Panelist, TÜBİTAK-BİDEB 2011
- Dergi Hakemlikleri:
IEEE Trans. on Wireless Communications, IEEE Trans on Vehicular Technology, IEEE Communication Letters, IEEE Trans. Mobile Computing, Applied Soft Computing, Sensors, Wireless Personal Communications (Springer), Research

Letters in Communications, Int. Journal of Infrared and Millimeter waves

- Konferans Hakemlikleri: IEEE Conferences (VTC 2010, 2009, 2008, 2007, 2005, 2003, PIMRC 2008, 2007, 2005, IWCMC 2007, IIT 2006, ISCAS 2005, WCMC 2003), IASTED Conferences (IMSA 2005, SIP 2005, SPPRA 2005, NCS 2006)