Prof. Dr. AHMET AKSEN
Işık Üniversitesi
Elektrik-Elektronik Mühendisliği Bölümü
aksen@isikun.edu.tr

1. Adı Soyadı : Ahmet AKSEN

2. Doğum Tarihi : 1960

3. Ünvanı : Profesör

4. Öğrenim Durumu :

ÖĞRENİM DÖNEMİ	DERECE	ÜNİVERSİTE	ÖĞRENİM ALANI
1976-1981	Lisans	Orta Doğu Teknik Üniversitesi	Elektrik-Elektronik Mühendisliği
1982-1984	Y. Lisans	Orta Doğu Teknik Üniversitesi	Elektrik-Elektronik Mühendisliği
1989-1994	Doktora	Ruhr Universitaet Bochum-Almanya	Elektronik Haberleşme

5. Akademik Ünvanlar

YIL	UNVAN	ÜNİVERSİTE	BÖLÜM
1995	Yrd. Doçent	İstanbul Üniversitesi	Elektrik-Elektronik Mühendisliği
1996	Doçent	İstanbul Üniversitesi	Elektrik-Elektronik Mühendisliği
2002	Profesör	Işık Üniversitesi	Elektronik Mühendisliği

6. Yönetilen Yüksek Lisans ve Doktora Tezleri

6.1. Yüksek Lisans Tezleri

1. Hayri Simsek, "Construction of Multivariable Broadband Matching Networks: An Integrated Design Tool", Işık Üniversitesi, 2009.

2. Ömer Sümer, **"**Insertion Loss Design of RF Filters with Mixed Lumped-Distributed Realization", Işık Üniversitesi, 2007.

3. Emir Murad Yüksel, **"**Broadband Microwave Amplifier Design Tool", Işık Üniversitesi, 2006.

4. Hakan Büyüktopçu, "WLAN University Campus Internetworking Infrastructure", Işık Üniversitesi, 2003.

6.2. Doktora Tezleri

Metin Şengül, "Circuit Models with Mixed Lumped and Distributed Elements for Passive Oneport Devices", Işık Üniversitesi, 2006, (Eş-Danışman: Sıddık Yarman).

7. Yayınlar

7. 1. SCI-Expanded kapsamındaki dergilerde yayınlanan makaleler

1. B.S.Yarman, A.Kilinç, **A.Aksen**," Immitance Data modelling via linear Interpolation Techniques A Classical Circuit Theory Approach", *International Journal of Circuit Theory and Applications*, vol. 32, pp. 537-563, 2004.

2. **A.Aksen**, B.S. Yarman,"A Real Frequency approach to describe lossless two-ports formed with mixed lumped and distributed elements", AEÜ-*International Journal of Electronics and Communications*, vol. 6, pp. 389-396, November 2001.

3. B.S.Yarman, **A.Aksen**, A.Kılınç, "An immitance based tool for modeling passive one-port devices by means of Darlington equivalents", AEÜ-*International Journal of Electronics and Communications*, vol. 6, pp. 443-451, November 2001.

4. B.S.Yarman, **A. Aksen**, "An integrated design tool to construct lossless matching networks with mixed lumped and distributed elements", *IEEE Transactions on Circuits and Systems Fundamental Theory and Applications*, CAS-39, Nr.9, pp.713-723, September 1992.

7. 2. Uluslararası hakemli dergilerde yayınlanan makaleler

7.3. Uluslararası bilimsel toplantılarda sunulan ve bildiri kitabında basılan bildiriler

1. S.Kilinc, R. Kopru, **A.Aksen**, B.S. Yarman," Mixed Element Wideband Microwave Amplifier Design via Simplified Real Frequency Technique" 14th Mediterranean Microwave Symposium (MMS2014), December 12-14 2014, Marrakech, Morocco

2. R.Kopru, S.Kilinc, **A.Aksen**, B.S.Yarman, "Unit Element Bandpass Filter Design via Simplified Real Frequency Technique for UWB Microstrip Patch Antenna", 14th Mediterranean Microwave Symposium (MMS2014), December 12-14 2014, Marrakech, Morocco.

3. D.C.Atilla, C.Aydin, T.Nesimoglu, R.Kopru, **A.Aksen**, B.S. Yarman, "Design of Tunable Amplifier Using Digital Capacitors", 14th Mediterranean Microwave Symposium (MMS2014), December 12-14 2014, Marrakech, Morocco.

4. B.S.Yarman, **A.Aksen**, R.Kopru, C.Aydın, D.C.Atilla, "A High Precision Cascade Synthesis Technique for Real Frequency Matching Involving Brune and Darlington Type-C Sections", 14th Mediterranean Microwave Symposium (MMS2014), December 12-14 2014, Marrakech, Morocco.

5. B.S. Yarman, **A. Aksen**, R. Kopru, C. Aydın, and C. Atilla "Computer Aided High Precision Darlington Synthesis for Real Frequency Matching", Proceedings of IEEE Benjamin Franklin Symposium on Microwave and Antenna Sub-systems (BenMAS 2014), Philadelphia, USA, September 2014.

6. R. Köprü, S. Kılınç, **A. Aksen**, and B.S. Yarman "Design and Implementation of Wideband Microwave Amplifiers Based on Normalized Gain Function", Proceedings of IEEE Benjamin Franklin Symposium on Microwave and Antenna Sub-systems (BenMAS 2014), Philadelphia, USA, September 2014.

7. P. Lindberg, M. Şengül, E. Çimen, B.S. Yarman, A. Rydberg and **A. Aksen**, "Single Matching Network Design for a Dual Band PIFA Antenna via Simplified Real Frequency Technique," Proceedings of the first European Conference on Antennas and Propagation EuCAP 2006, Nice, France, November 2006, 6-10.

8. P. Lindberg, M. Şengül, E. Çimen, B.S. Yarman, A. Rydberg, **A. Aksen**, "A Single Matching Network Design for a Double Band PIFA Antenna via Simplified Real Frequency Technique," Proceedings of the Asia-Pacific Microwave Conference APMC 2006 at Yokohama, Japan, December 2006, 12-15.

9. B.S. Yarman, M. Sengul, A. Kilinc, A. **Aksen,** "Reflectance Data Model with Mixed Lumped and Distributed Elements for Wireless Communication Systems", ECCTD 2005 Proceedings of the 2005 European Conference on Circuit Theory and Design, Volume 3, 28 Aug.-2 Sept. 2005, Page(s):289-292, Cork, Ireland.

10. B.S. Yarman, M. Şengül, A. Kılınç, **A. Aksen**, "Circuit Model for Given Reflectance Data Constructed with Mixed Lumped and Distributed Elements for high speed/high frequency communication systems", The Fourth International

Workshop on Multidimensional (ND) Systems NDS 2005, Wuppertal, Germany, July 10-13 2005.

11. **A. Aksen**, H. Pınarbası, B.S. Yarman, "A Parametric Approach to Construct Two-Variable Positive Real Impedance Functions for the Real Frequency Design of Mixed Lumped-Distributed Matching Networks", *Proceedings of IEEE International Microwave Conference, IMS'2004,* pp. 1851-1854, Forth Worth, Texas, June 2004.

12. **A. Aksen**, B.S. Yarman, "A parametric approach to describe distributed two-ports with lumped discontinuities for the design of broadband MMICs", *Proceedings of IEEE International Symposium on Circuits and Systems ISCAS'2003*, Bangkok, Thailand, May 2003.

13. E.G. Çimen, S. Yarman, **A. Aksen**, "Design and simulation of miniaturized communication systems employing symmetrical lossless two-ports constructed with two-kinds of elements", *Proceedings of IEEE International Symposium on Circuits and Systems ISCAS'2003*, Bangkok, Thailand, May 2003.

14. Ali Kılınç, H. Pınarbası, Sıddık Yarman, **Ahmet Aksen**, "Microwave Amplifier design for mobile communication via immitance data modeling", *Proceedings of International Symposium on Circuits and Systems ISCAS'2003*, Bangkok, Thailand, May 2003.

15. **Ahmet Aksen**, B.Sıddık Yarman, "Scattering based Parametric description of lossless two-ports with commensurate lines and lumped discontinuity elements for MMICs", *Proceedings of ECCTD'2003 European Conference on Circuit Theory and Design*, VII, pp.21-24, Krakow, Poland, September 2003.

16. Hacı Pınarbası, Metin Sengül, **Ahmet Aksen**, B.Sıddık Yarman, "Real frequency design of broadband microwave amplifiers with mixed lumped and distributed element equalizers for MMICs", *Proceedings of ELECO'2003, International Conference on Electrical and Electronics Engineering*, Bursa, Turkey, December 2003.

17. B.S. Yarman, **A. Aksen**, A. Kilinc, "Immitance Data Modelling via Linear Interpolation Techniques", *Proceedings of IEEE International Symposium on Circuits and Systems, ISCAS'2002* Phoenix, Arizona, v.2, pp.527-530, May 2002.

18. B.S. Yarman, E.G. Çimen, **A. Aksen**, "Description of symmetrical lossless two-ports in two kinds of elements for the design of microwave communication systems in MMIC Realization", *Proceedings of 15th European Conference on Circuit Theory and Design, ECCTD'2001*, Espoo, Finland, August 2001.

19. **A. Aksen**, B.S. Yarman, "Design of microwave amplifiers using distributed equalizers with lumped discontinuities for hybrid and monolithic MIC realizations", *Proceedings of Progress in Electromagnetics Research Symposium, PIERS'2001,* Osaka, Japan, July 2001.

20. **A. Aksen**, B.S. Yarman, "A computer aided design technique for hybrid and monolithic microwave amplifiers employing distributed equalizers with lumped discontinuities", *Proceedings of IEEE Int. Microwave Symposium, IMS'2001*, Arizona, USA, May 2001.

21. B.S. Yarman, **A. Aksen**, "A reflectance-based computer aided modelling tool for high speed/high frequency communication systems", *Proceedings of IEEE International Symposium on Circuits and Systems, ISCAS'2001*, Sydney, Australia, May 2001.

22. B.S. Yarman, A. Kılınç, **A. Aksen**, "A systematic procedure to model measured data obtained from a passive physical device by means of its Darlington Equivalent", *First IEEE Balkan Conference on Signal Processing, Communications, Circuits and Systems,* İstanbul, June 2000.

23. B.S. Yarman, A. Sertbaş, **A. Aksen**, "A computer-aided design technique for analog RF circuits with lumped and distributed element interconnect models", *First IEEE Balkan Conference on Signal Processing, Communications, Circuits and Systems*, İstanbul, June 2000.

24. B.S. Yarman, E.G. Çimen, **A. Aksen**, A. Sertbaş, "Explicit descriptive equations to construct symmetrical lossless two ports with mixed lumped and distributed elements", *IEEE Balkan Conference on Signal Processing, Communication, Circuits and Systems*, İstanbul, June 2000.

25. B.S. Yarman, F. Güneş, T. Bazan, **A. Aksen**, "Potential broadband characteristics of a microwave transistor and realization conditions", *IEEE Balkan Conference on Signal Processing, Communications, Circuits and Systems*, İstanbul, June 2000.

26. A. Sertbaş, **A. Aksen**, B.S. Yarman, "Explicit formulas for a special class of two-variable resonant ladder networks with simple lumped elements and commensurate stubs", *International Conference on Electrical and Electronics Engineering, ELECO'99*, pp.132-135, Bursa, Dec. 1999.

27. A. Sertbaş, **A. Aksen**, B.S. Yarman, "Construction of analog RF circuits with lumped and distributed components for high speed/high frequency mobile communication MMICs," *Proceedings of the European Conference on Circuit Theory and Design, ECCTD'99*, pp.1123-1126, Stresa, Italy, September 1999.

28. **A. Aksen**, E.G. Çimen, B.S. Yarman, "A numerical real frequency broadband matching technique based on parametric representation of scattering parameters", *Proceedings of IEEE Asia Pacific Conference on Circuits and Systems, APCCAS'98*, pp.351-354, Chiangmai, Thailand, November 1998.

29. A. Sertbaş, **A. Aksen**, B.S. Yarman, "Construction of some classes of two-variable lossless ladder networks with simple lumped elements and uniform transmission lines", *Proceedings of IEEE Asia Pacific Conference on Circuits and Systems, APCCAS'98*, pp.295-298, Chiangmai, Thailand, November 1998.

30. **A. Aksen**, B.S. Yarman, "Cascade synthesis of two-variable lossless two-port networks of mixed, lumped elements and transmission lines: A semi-analytic procedure", *Proceedings of the First International Workshop on Multidimensional Systems, NDS-98,* pp.35-37, Technical University of Zıelona Gora, Poland, July 1998.

31. A. Sertbaş, B.S. Yarman, **A. Aksen**, "Explicit two-variable description of a class of band-pass lossless two-ports with mixed, lumped elements and transmission lines", *Proceedings of the First International Workshop on Multidimensional Systems, NDS-98*, pp.45-47, Technical University of Zıelona Gora, Poland, July 1998.

32. B.S. Yarman, N. Bağcı, **A. Aksen**, "The role of projects in student centered education", *International Conf. on New Trends in Science Education, FMVCE'97,* İstanbul, May 1997.

33. **A. Aksen**, B.S. Yarman, "A semi-analytic method to design microwave networks with mixed lumped elements and transmission lines", *Proceedings of Progress in Electromagnetic Research Symposium, PIERS'96,* University of Insbruck, Austria, July 1996.

34. **A. Aksen**, B.S. Yarman, "A semi-analytic procedure to describe lossless two-ports with mixed lumped and distributed elements", *Proceedings of International Symposium on Circuits and Systems, ISCAS'94*, pp. 205-208, London, England, May 1994.

35. **A. Aksen**, B.S. Yarman, "Construction of low-pass ladder networks with mixed lumped and distributed elements", *Proceedings of European Conference on Circuit Theory and Design, ECCTD'93*, vol.1, pp. 1388-1393, Davos, Switzerland, September 1993.

36. B.S. Yarman, **A. Aksen**, A. Fettweis, "An integrated design tool to construct lossless matching networks with mixed lumped and distributed elements", *Proceedings of 10'th European Conferance on Circuit Theory and Design, ECCTD'91*, vol.3, pp.1280-1289, Copenhagen, Denmark, September 1991.

37. B.S. Yarman, **A. Aksen**, A. Fettweis, "An integrated design tool to construct lossless two-ports with mixed lumped and distributed elements for matching problems", *Proceedings of 3'rd International Symposium on Recent Advances in Microwave Technology, ISRAMT'91*, vol. 2, pp. 570-573, Reno, Nevada, USA, August 1991.

38. **A. Aksen**, N. Yıldırım, "Broadbanding branch-line couplers by matching and optimization", *Mediterranean Electrotechnical Conference, MELECON'85, Proceedings on Radio-communication*, pp.85-88, , Madrid, Spain, September 1985.

7.4. Yazılan uluslararası kitaplar veya kitaplarda bölümler

A. Aksen, B.S.Yarman, "Cascade synthesis of two-variable lossless two-port networks with lumped elements and transmission lines", in *Multidimensional Signals, Circuits and Systems*, Editors: K. Galkowski and J. Wood, Chapter 12, pp.219-232, Taylor and Francis, New York, 2001, (ISBN 0-415-25363-2(hbk))

7.5. Ulusal hakemli dergilerde yayımlanan makaleler

7.6. Ulusal bilimsel toplantılarda sunulan bildiriler

1. R.Köprü, H.Kuntman, A.Aksen, B.S.Yarman, "Kablosuz Haberleşme İçin Yeni Bir Genişband Mikrodalga Yükselteç Tasarım Yöntemi", ASELSAN Haberleşme Teknolojileri Çalıştayı, 18-19 Ekim 2013, Ankara

2. D.Ç.Atilla, Ç.Aydın, T.Nesimoğlu, R.Köprü, A.Aksen, B.S.Yarman, "Ayarlanabilir Mikrodalga Uyumlaşma Devresi ve Yükselteç Tasarımı", ASELSAN Haberleşme Teknolojileri Çalıştayı, 18-19 Ekim 2013, Ankara

3. Şengül M., **Aksen A.**, Yarman B.S., (2005), "Karışık Toplu ve Dağınık Devre Elemanları İçeren Merdiven Devrelerin Sentezi", Elektrik-Elektronik-Bilgisayar Mühendisliği 11. Ulusal Kongresi ve Fuarı, Istanbul, 22-25 Eylül 2005.

4. H. Pınarbaşı, M. Şengül, **A. Aksen**, S.B. Yarman, "Genişbant Mikrodalga Devre Tasarım Paket Programı", *Proc. of the National Conference on Electricity Electronics and Computer Engineering ELECO 2004*, Bursa, Turkey, 166-169, 08- 12 Aralık 2004.

5. **A. Aksen**, E.G. Çimen, B.S. Yarman, " Saçılma parametrelerinin parametrik tanımı ile bilgisayar destekli geniş bandlı empedans uyumlaştırma", *Çukurova Universitesi, Elektrik-Elektronik Mühendisliği Bölümü, 10.Yıl Sempozyumu*, s.18-20, Adana, Şubat 1998.

6. A. Sertbaş, B.S. Yarman, **A. Aksen**, "Mikrodalga kuvvetlendiricileri için band-geçiren tip karma (toplu-dağılmış) elemanlı dengeleyici tasarımı", *Çukurova Üniversitesi, Elektrik-Elektronik Mühendisliği Bölümü, 10.Yıl Sempozyumu*, s.84-89, Adana, Şubat 1998.

7. E.G. Çimen, B.S. Yarman, **A. Aksen**, "Kayıpsız iki kapılı devrelere ait ölçüm verilerinin dağılmış elemanlarla modellenmesi", *Elektrik mühendisliği 6. Ulusal kongresi*, Bursa, Eylül 1995.

8. **A. Aksen**, N.Yıldırım, "Uyumlama ve iyileştirme yöntemi ile geniş bandlı merdiven tipi yönlü bağlaçların bilgisayarla tasarımı ve gerçekleştirilmesi", *Birinci ulusal elektrik mühendisliği sempozyumu kitabı*, pp. 529-534, Ağustos, 1985, Adana.

8. Projeler

NEWCOM NoE, Project No: 507325, WPR3 Research integration for Project 3, "Design, modelling and experimental characterisation of RF and microwave devices and subsystems", 2004-2006

9. İdari Görevler, Akademik ve Mesleki Deneyim

9.1. İdari Görevler

TARİH	KURUM/KURULUŞ	GÖREV
1997-1999	Işık Üniversitesi	Elektronik Mühendisliği Bölüm Başkan Vekili
1997-2002	Işık Üniversitesi	Bilgi İşlem Daire Başkan Vekili
2000-2005	Işık Üniversitesi	Bilgisayar Mühendisliği Bölüm Başkanı
2005-2012	Işık Üniversitesi	Elektrik-Elektronik Mühendisliği Bölüm Başkanı
2013-2014	Işık Üniversitesi	Mühendislik Fakültesi Dekan Yardımcısı
2015-	Işık Üniversitesi	Elektrik-Elektronik Mühendisliği Bölüm Başkanı

9.2. Akademik ve Mesleki Deneyim

GÖREV DÖNEMİ	ÜNVAN	KURUM/KURULUŞ	BÖLÜM
1981-1983	Mühendis	PTT Meslek Geliştirme Başmüdürlüğü	Radyolink
1983-1988	Araştırma Görevlisi	Orta Doğu Teknik Üniversitesi	Elektrik - Elektronik Mühendisliği
1988	Öğretim Görevlisi	Hacettepe Üniversitesi	Elektrik - Elektronik Mühendisliği
1989-1995	Araştırma Asistanı	Ruhr-Üniversitaet Bochum, Almanya	Lehrstuhl für Nachricthentechnik
1995-1996	Yrd. Doç. Dr.	İstanbul Üniversitesi	Elektrik-Elektronik Mühendisliği
1996-1997	Doç. Dr.	İstanbul Üniversitesi	Elektrik-Elektronik Mühendisliği
1997-2002	Doç. Dr.	Işık Üniversitesi	Elektronik Mühendisliği
2002-	Prof. Dr.	Işık Üniversitesi	Elektrik-Elektronik Mühendisliği

10. Bilimsel Kuruluşlara Üyelikler

Institute of Electrical Electronics Engineers (IEEE)
TMMOB Elektrik Mühendisleri Odası, Türkiye

11. Ödüller

1. TÜBİTAK Eğitim Bursu (1977-1984)
2. DAAD Araştırma Bursu (1988-1994)

12. Verdiği Dersler

- Electromagnetic Fields and Waves
- Microwave Engineering
- Wireless Communications
- Circuit Theory
- Electronics
- Electronics Lab.
- Engineering Orientation

13. Diğer akademik ve bilimsel faaliyetler

13.1. Hakemlik yaptığı SCI-Expanded kapsamındaki dergiler

- IET Electronics Letters
- International Journal of Electronics and Communications

13.2. **Düzenlenen Bilimsel Etkinlikler (Sempozyum, Konferans, Çalıştay vs.)**

- ICTPE2013- **9th International Conference on Technical and Physical Problems of Electrical Engineering**, 8-11 September, Işık Üniversitesi, İstanbul (Organizing Committee Member, Conference Secretary)

- EMC2013- **2. Ulusal Elektromanyetik Uyumluluk Konferansı,** 9-10 Eylül 2013, Işık Üniversitesi, İstanbul (Düzenleme Komitesi üyesi)

- 3) CEW2012 "**Continue Education Workshops: Radio Frequency Integrated Circuit Design Workshop**", 10-14 Eylül 2012, Işık Üniversitesi, İstanbul (Düzenleme Komitesi üyesi)

13.3**. Diğer Hakemlik ve Etkinlikler**

- TESİD 2013 Yenilikçilik Yaratıcılık Ödül Hakemliği, Kasım 2013, İstanbul
- "IPContest2012 International Project Contest and Exhibition for Undergraduate Students in Science and Engineering", Işık Üniversitesi, Haziran 2012
- TÜBİTAK ARDEP, R1001 proje değerlendirme ve proje izleme hakemliği (2008-2012)

14. Araştırma Alanları

- Geniş bantlı uyumlama kuramı
- Gerçek frekanslı uyumlama teknikleri
- Çok değişkenli devre kuramı
- Geniş bantlı mikrodalga yükselteç tasarımı
- Mikrodalga filtre tasarımı
- RF verilerin devre modellemesi
- Çok değişkenli WDF ve elektromanyetik te sayısal yöntemler