CURRICULUM VITAE

1. Name Surname: Ali Zeki

2. Date of Birth: 6 Eylül 1968

3. Title: Prof. Dr.

4. Education Background

Degree	Major	University	Year
Undergraduate	Electronics & Comm. Eng.	Istanbul Technical University	1990
Graduate	Electronics & Comm. Eng.	Istanbul Technical University	1993
Ph.D.	Electronics & Comm. Eng.	Istanbul Technical University	1998

5. Positions Held

Title	Institution	Year
Research Assistant	Istanbul Technical University	1991-1998
Assist.Prof.Dr.	Istanbul Technical University	1998-2000
Assoc.Prof.Dr.	Istanbul Technical University	2000-2006
Prof.Dr.	Istanbul Technical University	2006-2010
Prof.Dr.	Girne American University	2010-present

6. Graduate Theses Supervised

6.1 Masters Theses

Osman Karpuz, "Yeni Bir Açık Çevrimli x2 Kazançlı Rezidü Kuvvetlendirici ile CMOS Pipeline Analog Sayısal Çevirici Tasarımı," (in Turkish, "*CMOS Pipeline Analog-Digital Converter Design with a New Open-Loop* x2 *Gain Residue Amplifier*") ITU Institute of Science and Technology, Electronics Eng., 2010.

Nilay Dağtekin, "Track-Hold Amplifier and Multiplying Digital to Analog Converter (MDAC) Dedicated to 100MS/s Pipeline ADC," ITU Institute of Science and Technology, Electronics Eng., 2008.

Fulya Tezel, "New MOSFET Threshold Voltage Extraction Methods and Extractors," ITU Institute of Science and Technology, Electronics Eng., 2006.

Umut Güvenç, "New Tunable Linear Current Mirrors," ITU Institute of Science and Technology, Electronics Eng., 2006.

Fidel Bayam, "Chaotic Oscillator Based Random Number Generator," ITU Institute of Science and Technology, Electronics Eng., 2005.

Özgür Ateş, "Chaotic Oscillator Based Random Bit Generator," ITU Institute of Science and Technology, Electronics Eng., 2005.

Bilal Tarık Çavuş, "High-linearity Open-loop Fixed-gain Buffers and Amplifiers," ITU Institute of Science and Technology, Electronics and Communications Eng., 2005.

Tolga Kaya, "A High-Resolution Current Mode CMOS Algorithmic Analog-to-Digital Converter," ITU Institute of Science and Technology, Electronics and Communications Eng., 2002.

Indrit Myderrizi, "BiCMOS Current-Mode Integrators Suitable for Low-Voltage Continuous-Time Filters," ITU Institute of Science and Technology, Electronics and Communications Eng., 2002.

6.2 Ph.D. Theses

Indrit Myderrizi, "High-speed Design of High-resolution DACs," ITU Institute of Science and Technology, Electronics Eng., 2009.

Tolga Kaya, "A Novel Micro Piezoelectric Energy Harvesting System," ITU Institute of Science and Technology, Electronics Eng., 2007.

7. Publications

7.1 Published international journal papers

<u>SCI:</u>

Indrit Myderrizi, **Ali Zeki**, "Electronically tunable DXCCII-based grounded capacitance multiplier", International Journal of Electronics and Communications (AEÜ), vol.68, no.9, s.899-906, 2014.

Ece Olcay Güneş, **Ali Zeki**, Ali Toker, "Design of a high performance mutually coupled circuit", Analog Integrated Circuits and Signal Processing, vol.66, no.1, pp.81-91, 2011.

Indrit Myderrizi, **Ali Zeki**, "Current-steering digital-to-analog converters: Functional specifications, design basics and behavioral modeling", IEEE Antennas and Propagation Magazine, vol.52, no.4, pp.197-208, 2010.

Indrit Myderrizi, **Ali Zeki**, "A 12-bit 0.35um CMOS area optimized current-steering hybrid DAC", Analog Integrated Circuits and Signal Processing, vol.65, no.1, pp.67-75, 2010.

Vedat Tavas, Şamil Demirkol, Serdar Özoğuz, **Ali Zeki**, Ali Toker, "An ADC based random bit generator based on a double scroll chaotic circuit", J. Circuits, Systems and Computers, vol.9, no.7, pp.1621-1639, 2010.

Vedat Tavas, Şamil Demirkol, Serdar Özoğuz, **Ali Zeki**, Ali Toker, "An integrated cross-coupled chaos oscillator applied to random number generation", IET Circuits, Devices & Systems, vol.3, no.1, pp.1-11, 2009.

Ali Zeki, Ali Toker, "Tunable linear CMOS current mirror", Analog Integrated Circuits and Signal Processing, vol.50, no.3, pp.261-269, 2007.

Ali Toker, **Ali Zeki**, "Tunable active network synthesis using ICCIIs", International Journal of Electronics, vol.94, no.4, pp.335-351, 2007.

Ali Zeki, Ali Toker, "DXCCII-based tunable gyrator", International Journal of Electronics and Communications (AEÜ), vol.34, no.1, pp.59-62 , 2005.

Ali Zeki, Ali Toker, "The dual-X current conveyor (DXCCII): A new active device for tunable continuous-time filters", International Journal of Electronics, vol.89, no.12, pp.913-923, 2002.

Ali Toker, **Ali Zeki**, Oğuzhan Çiçekoğlu, "Generalized gyrator implementation techniques using unity-gain cells", International Journal of Electronics, vol.88, no.5, pp.517-528, 2001.

Ali Zeki, Ali Toker, Serdar Özoğuz, "Linearly tunable transconductor using modified CDBA", Analog Integrated Circuits and Signal Processing, vol.26, no.2, pp.179-183, 2001.

Ali Zeki, "Low-voltage CMOS triode transconductor with wide-range and linear tunability", Electronics Letters, 35, pp.1685-1686, 1999.

Ali Zeki, Hakan Kuntman, "High-output-impedance CMOS dual-output OTA suitable for wide-range continuous-time filtering applications", Electronics Letters, 35, pp.1295-1296, 1999.

Hakan Kuntman, **Ali Zeki**, "Novel approach to the calculation of non-linear harmonic distortion coefficients in CMOS amplifiers", Microelectronics Journal, 29, pp.43-48, 1998.

Ali Zeki, Hakan Kuntman, "Accurate active-feedback CMOS cascode current mirror with improved output swing", International Journal of Electronics, 84, pp.335-343, 1998.

Ali Zeki, Hakan Kuntman, "Accurate and high output impedance current mirror suitable for CMOS current output stages", Electronics Letters, 33, pp.1042-1043, 1997.

Ali Zeki, Hakan Kuntman, "A new MOSFET model suitable for analogue IC analysis", International Journal of Electronics, 78, pp.247-260, 1995.

EI:

Tolga Kaya, **Ali Zeki**, "A high-speed CMOS current comparator suitable for algorithmic analog-to-digital converters", Istanbul University Journal of Electrical and Electronics

Engineering (IU-JEEE), vol.8, no.2, pp.603-605, 2008.

7.2 International conference papers published in proceedings

Ali Zeki, "An analog CMOS tunable current-mode classifier core circuit with reduced power consumption", International Symposium on Engineering, Artificial Intelligence and Applications (ISEAIA), Girne, N.Cyprus, Nov. 2013.

Vedat Tavas, Ahmet Ş. Demirkol, Serdar Özoğuz, Selçuk Kılınç, Ali Toker, **Ali Zeki**, "An IC Random Number Generator Based on Chaos", Applied Electronics - International Conference, Pilsen, Czech Republic, pp.347-350, Sep. 2010.

Indrit Myderrizi, **Ali Zeki**, "A high-speed swing reduced driver suitable for digital-to-analog converters", ECCTD 2009, European Conference on Circuit Theory and Design, Antalya, Turkey, pp.635-638, Aug. 2009.

Indrit Myderrizi, **Ali Zeki**, "Behavioral model of segmented current-steering DAC by using SIMULINK", IEEE PRIME 2009, The 5th International Conference on PhD Research in Microelectronics & Electronics, Cork, Ireland, pp.156-159, July 2009.

Indrit Myderrizi, **Ali Zeki**, "A high output impedance CMOS current source suitable for current-steering DACs", Applied Electronics - International Conference, Pilsen, Czech Republic, pp.131-134, Sep. 2008.

Umut Güvenç, **Ali Zeki**, "A new tunable linear current mirror", IEEE PRIME 2008 (International Conference on PhD Research in Microelectronics & Electronics), Istanbul, Turkey, pp.49-51, June 2008.

Ali Zeki, Ali Ümit Keskin, Ali Toker, "DXCCII-based four-quadrant analog multipliers using triode MOSFETs", ELECO 2005, The 4th International Conference on Electrical and Electronics Engineering, Bursa, Turkey, pp.41-45, Dec. 2005.

Atila Uygur, Hakan Kuntman, **Ali Zeki**, "Multi-input multi-output CDTA-based KHN filter", ELECO 2005, The 4th International Conference on Electrical and Electronics Engineering, Bursa, Turkey, pp.46-50, Dec. 2005.

Sinem Çiftçioğlu, Hakan Kuntman, **Ali Zeki**, "New high performance CMOS differential current conveyor realization", ELECO 2005, The 4th International Conference on Electrical and Electronics Engineering, Bursa, Turkey, pp.68-71, Dec. 2005.

Sinem Çiftçioğlu, Hakan Kuntman, **Ali Zeki**, "Tunable MOSFET-C filter biquads using new CMOS realization of high performance differential current conveyor", Applied Electronics - International Conference, Pilsen, Czech Republic, pp.53-56, Sep. 2005.

Burak Çatlı, Fidel Bayam, Bilal Tarık Çavuş, Asım Kepkep, **Ali Zeki**, "A 7-bit 4GSa/s two-way time-interleaved bipolar track-and-hold amplifier", IEEE PRIME 2005 (International Conference on PhD Research in Microelectronics & Electronics), Lausanne, Switzerland, vol.1, pp.37-39, July 2005.

Sinem Çiftçioğlu, Hakan Kuntman, **Ali Zeki**, "New CMOS realization of high performance differential current conveyor (DCCII) and application examples", Applied Electronics - International Conference, Pilsen, Czech Republic, pp.27-30, Sep. 2004.

Indrit Myderrizi, **Ali Zeki**, "BiCMOS current-mode integrators suitable for low-voltage continuous-time filters", International Symposium on Signals, Circuits & Systems (SCS 2003), Iasi, Romania, vol.2, pp.473-476, July 2003.

Tolga Kaya, **Ali Zeki**, "A modified active current mirror suitable for current-mode algorithmic analog-to-digital converters", 9th IEEE International Conference on Electronics, Circuits and Systems (ICECS 2002), Dubrovnik, Croatia, vol.1, pp.257-260, Sep. 2002.

Serdar Özoğuz, Nil Tarım, **Ali Zeki**, "Realization of high-Q bandpass filters using CCCIIs", 44th Midwest Symposium on Circuits and Systems, Dayton, Ohio, USA, vol.1, pp.134-137, Aug. 2001.

Ali Zeki, Hakan Kuntman, "High-linearity low-voltage self-cascode class AB CMOS current output stage", International Symposium on Circuits And Systems (ISCAS 2000), Geneva, Switzerland, vol.IV, pp.257-260, May 2000.

Ali Zeki, Hakan Kuntman, "A CMOS CCII suitable for continuous-time active networks", International Symposium on Signals, Circuits & Systems (SCS'97), Iasi, Romania, pp.493-498, 1997.

Ali Zeki, Hakan Kuntman, "A novel CMOS OTA structure suitable for OTA-C filters", International Conference on Microelectronics (ICM'96), Cairo, Egypt, pp.7-10, 1996.

7.3 International books written or sections in those books

7.4 Published national journal papers

Tolga Kaya, **Ali Zeki**, Hür Köşer, "Yeni bir MEMS tabanlı pilsiz aktif RFID etiket sistemi" ("*A new MEMS-based batteryless active RFID tag system*"), İTÜ Dergisi (*ITU Journal*), seri d (mühendislik-*engineering*), vol. 7, no. 5, pp.89-96, 2008.

Indrit Myderrizi, **Ali Zeki**, "Yüksek çözünürlüklü akım yönlendirmeli sayısal-analog dönüştürücüler için yeni tasarım yaklaşımı" ("*A new design approach for high-resolution current-steering digital-analog converters*"), İTÜ Dergisi (*ITU Journal*), part d (mühendislik-*engineering*), vol.10, no.1, pp.123-134, 2011.

Ali Zeki, "Elektronikte analog dijital yanılsamalar", Kıbrıs Bilim ve Teknoloji Dergisi (ISSN: 21472173), cilt 1, sayı 1, s.22-29, 2012.

7.5 National conference papers published in proceedings

Vedat Tavas, Şamil Demirkol, Selçuk Kılınç, Serdar Özoğuz, Ali Toker, **Ali Zeki**, "Tümleştirmeye uygun kaotik osilatör tabanlı rastgele sayı üreteci", ELECO 2008, The 5th

National Symposium on Electrical, Electronics and Computer Engineering, Bursa, Turkey, pp.8-12, November, 2008.

Tolga Kaya, **Ali Zeki**, "Algoritmik analog-sayısal çeviriciler için yeni bir yüksek hızlı CMOS akım karşılaştırıcı", ELECO 2006, The 4th National Symposium on Electrical, Electronics and Computer Engineering, Bursa, Turkey, pp.??-??, December 2006.

Ali Zeki, "Yüksek doğruluklu regüle kaskod akım aynalarının akım modu yapılar içinde tasarımı üzerine", 11th National Electrical Engineering Congress, Istanbul, Turkey, pp.52-54, Sep. 2005.

Ali Zeki, Ali Toker, "DXCCII ve doymasız MOSFETler kullanarak sabit kazançlı kuvvetlendirici tasarımı", 11th National Electrical Engineering Congress, Istanbul, Turkey, pp.417-420, Sep. 2005.

Sinem Çiftçioğlu, Hakan Kuntman, **Ali Zeki**, "Yüksek performanslı yeni bir CMOS fark akım taşıyıcı yapısı", IEEE 12th Signal Processing and Communication Applications Congress (SİU2004), Kuşadası, İzmir, Turkey pp.367-370, April 2004.

Ali Zeki, Serdar Özoğuz "Elektronik olarak ayar edilebilen tümgeçiren süzgeç devresi", 10th Signal Processing and Communication Applications Congress (SİU2002), Pamukkale, Denizli, Turkey, pp.929-934, June 2002.

Hakan Kuntman, **Ali Zeki**, "Aktif yüklü CMOS kuvvetlendiricilerde harmonik distorsiyonu özelliklerinin yeni bir model yardımıyla incelenmesi', 6th National Electrical Engineering Congress, Bursa, Turkey, pp.495-498, Sep. 1995.

Ali Zeki, Hakan Kuntman, "OTA-C süzgeçlere uygun OTA tasarımı ölçütlerinin çıkarılması", 6th National Electrical Engineering Congress, Bursa, Turkey, pp.528-532, Sep. 1995.

Ali Zeki, Hakan Kuntman, "Analog tümdevre analizine uygun yeni bir MOSFET modeli", 5th National Electrical Engineering Congress, Trabzon, Turkey, pp.539-546, Sep. 1993.

7.6 Other publications

National books written or sections in those books

Ali Toker, **Ali Zeki**, "Bellekler" ("*Memory Cells*"), Türkiye Bilişim Ansiklopedisi (IT Encyclopedia of Turkey), pp.116-123, Papatya Yayınevi, Istanbul, 2006.

8. Projects

Projects Funded by National Organisations

"Baseband Driver Chip (BBSI) Development Project" (12 months), ETA Foundation/Aselsan, İTÜ-KOSGEB, 2000.

"A High-speed Direct Digital Frequency Synthesizer Using Nonlinear Digital-to-Analog Converter" (6 months), IBM International SiGe BiCMOS Design Contest, 2002.

"High-speed Medium-resolution (4bit-4GS/s) ADC Chip (ADC4004) Development Project" (18 months), ETA Foundation/Aselsan, İTÜ-KOSGEB, 2003.

"X-band (8-12GHz) CMOS RF Test Chip Development Project" (12 months), ETA Foundation/Mikro-IC/Aselsan, İTÜ-KOSGEB, 2007.

"Development of Integrated Continuous-time Chaotic Systems Applied to Random Number Generation" (24 months), TÜBİTAK- Scientific and Technological Research Funding Program, 106E093, (manager: Serdar Özoğuz), 2008.

9. Administrative Positions

President of Electronics Division, Istanbul Technical University, Faculty of Electrical & Electronics Eng. (2007-2009)

Vice President of Electronics and Communication Eng. Dept., Istanbul Technical University Faculty of Electrical & Electronics Eng. (2003-2004)

Member of ITU-KOSGEB Executive Council (2006-2008)

Academic Coordiantor of İTÜ ETA Foundation ASIC Design Center (2000-2004)

10. Memberships to Scientific Institutions

11. Awards