Assoc. Prof. Hakan DOĞAN

Personal Information

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Education Information

Doctorate, University of California, Berkeley, United States Of America 2001 - 2005
Undergraduate, University of Southern California, Electrical Engineering, United States Of America 1995 - 1999

Dissertations

Doctorate, Analysis and design of RF CMOS attenuators, University of California, Berkeley, 2005

Academic Titles / Tasks

Associate Professor, Istanbul Medipol University, Mühendislik ve Doğa Bilimleri Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2018 - Continues
Istanbul Medipol University, Mühendislik ve Doğa Bilimleri Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2017 - 2018
Assistant Professor, Istanbul Sehir University, Mühendislik Ve Doğa Bilimleri Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2013 - 2017

Academic and Administrative Experience

Istanbul Sehir University, 2016 - 2017

Courses

Advanced Integrated Analog Circuit Design, Postgraduate, 2017 - 2018
Electronik 1, Undergraduate, 2017 - 2018
Electromekanik Enerji Dönüşümü, Undergraduate, 2017 - 2018
Microelectronic Circuit Design, Undergraduate, 2016 - 2017
Communication Circuits, Postgraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014
Analog-Digital Interface Integrated Circuits, Postgraduate, 2016 - 2017
Advanced Integrated Analog Circuit Design, Postgraduate, 2016 - 2017
Digital Logic Design, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014
mmWave IC Design, Postgraduate, 2015 - 2016, 2014 - 2015
Control Systems, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014

Advising Theses

Hakan D., A 5.84 GHz Integer-n Charge Pump Phase-Locked Loop in 130nm PDSOI CMOS for C-V2X Applications, Postgraduate, T.KAYANSELÇUK(Student), 2022

Merve Yüsra D., Hakan D., Design of a digitally controlled ring oscillator for ADPLL, Postgraduate, O.HAMZEH(Student), 2021

Hakan D., A high-resolution time to digital converter design for all digital phase-locked loops, Postgraduate, T.EREN(Student), 2021

Hakan D., Digital filter and analog LDO design for ADPLL in 180 nm CMOS technology, Postgraduate, Z.NUR(Student), 2021

Hakan D., Ultra low power 12-bit 100 ks/s differential sar adc in 65 nm cmos technology, Postgraduate, M.ALİ(Student), 2020

Hakan D., A high voltage triboelectric energy harvesting system utilizing parallel-SSHI rectifier and DC-DC converters for sub-5 Hz motions, Doctorate, İ.KARA(Student), 2020

Hakan D., Logaritmik Güç Detektörü Tasarımı, Postgraduate, C.AYAN(Student), 2019

Hakan D., Nano-structured triboelectric nano generators for internet-of-things (IOT) applications, Postgraduate, K.ÜNLÜ(Student), 2018

Hakan D., Ultra low power, low noise, and fully integrated receiver for short range wireless communications, Postgraduate, H.EL(Student), 2017

Hakan D., Ultra-low power, low-voltage transmitter at ism band for short range transceivers, Postgraduate, R.RADY(Student), 2017

Hakan D., DC-DC regulators for ultra low power applications, Postgraduate, S.ELHOSAINY(Student), 2017

Hakan D., High gain, high bandwidth, wide icmr, and highly linear fully differential amplifier with large dynamic range and process corner configurable output stage, Postgraduate, A.MOZAMMEL(Student), 2017

Hakan D., A wide-current range switched capacitor DC-DC converter utilizing frequency, interleaving and switch-size scaling techniques, Postgraduate, S.MOHAMMED(Student), 2016

Hakan D., Low phase noise frequency synthesizer, Postgraduate, I.F.(Student), 2016

Published journal articles indexed by SCI, SSCI, and AHCI

I. **An Ultra Low Power Integrated Radio TX Link Supplied from a Switched Capacitor DC-DC Converter in 65-nm CMOS Achieving 2 Mbps**
Rady R., DOĞAN H., Aktan M., Mohammed S. A., Ozgun M. T.
IEEE Transactions on Circuits and Systems II: Express Briefs, vol.67, no.10, pp.1899-1903, 2020 (SCI-Expanded)

II. **A fully integrated 2.4 dB NF capacitive cross coupling CG-LNA for LTE band**
Abdelhamid A. A., Ozgun M. T., DOĞAN H.
Analog Integrated Circuits and Signal Processing, vol.99, no.1, pp.159-166, 2019 (SCI-Expanded)

III. **A low power receiver front-end design with tunable notch filter for TX leakage and blocker suppression**
Ozgun M. T., Abdelhamid A., DOĞAN H.
IEEE Transactions on Circuits and Systems I: Regular Papers, vol.66, no.3, pp.1180-1191, 2019 (SCI-Expanded)

IV. **A novel biasing technique for low phase noise voltage controlled oscillators**
Albittar I. F., DOĞAN H., Ozgun M. T.
Microelectronics Journal, vol.72, pp.120-125, 2018 (SCI-Expanded)

Articles Published in Other Journals

I. **A 12-bit, 100 kS/s, PVT robust SAR ADC in 65 nm CMOS process**
Ahmadlou M., Dundar G., DOĞAN H.
Microelectronics Journal, vol.149, 2024 (Scopus)

II. **A COMPACT GAN POWER AMPLIFIER MODULE FOR NEW GENERATION CELLULAR BASESTATIONS**
TÜRK B. B., HÜRCAN F., SAVCI H. S., Dogan H.
Black Sea Journal of Engineering and Science, vol.7, no.3, pp.587-593, 2024 (Peer-Reviewed Journal)

III. **A highly linear wide-band tunable LNA for military radio applications**
DOĞAN H.
Istanbul University - Journal of Electrical and Electronics Engineering, vol.18, no.1, pp.19-25, 2018 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

I. **A GaN-based Power Amplifier Module Design for 5G Base Stations**
Türk B. B., Hürcan F., SAVCI H. Ş., DOĞAN H.
International Conference on Cyber Security and Computer Science, Karabük, Turkey, 29 March 2023

II. **6 GHz Low Noise Amplifier design with 65nm CMOS for 5G/6G Applications 5G/6G Uygulamaları için 65nm CMOS ile 6GHz Düşük Gürültülü Yükselteç Tasarımı**
Eren T., Oktay Z. N., DOĞAN H., SAVCI H. Ş.
12th International Conference on Electrical and Electronics Engineering, ELECO 2020, Bursa, Turkey, 26 - 28 November 2020, pp.88-92

III. **A Fully Integrated Low Power LNA in 65nm CMOS TechnologySuitable for ZigBee, Low-Power WiFi and Bluetooth Low Energy**
DOĞAN H.
8th InternationalAdvanced Technologies Symposium, Elazığ, Turkey, 19 - 22 October 2017, vol.2, pp.404-409

IV. **A Fully Integrated Ultra-Low Power LNA in 65nm Cmos Technology Suitable For Sensor Network Applications**
DOĞAN H.
3rd International Conference on Engineering and Natural Sciences, Budapest, Hungary, 3 - 07 May 2017

V. **A highly integrated wideband LNA with multiple inputs for multi-band mobile devices**
Abdelhamid A. A., Ozgun M. T., DOĞAN H.
2016 IEEE 59th International Midwest Symposium on Circuits and Systems (MWSCAS), Abu Dhabi, United Arab Emirates, 16 - 19 October 2016

VI. **A 65nm dual-band 3-stream 802.11n MIMO WLAN SoC**
Abdollahi-Alibeik S., Weber D., DOĞAN H., Si W. W., Baytekin B., Komijani A., Chang R., Vakili-Amini B., Lee M., Gan H., et al.
2011 IEEE International Solid-State Circuits Conference, San-Francisco, Costa Rica, 20 - 24 February 2011, pp.170-171

VII. **A Single-Chip CMOS Radio SoC for v2.1 Bluetooth Applications**
Weber D., Si W. W., Abdollahi-Alibeik S., Lee M., Chang R., DOĞAN H., Luschas S., Husted P.
2008 IEEE International Solid-State Circuits Conference - Digest of Technical Papers, San-Francisco, Costa Rica, 3 - 07 February 2008, pp.364-365

VIII. **A dc-2.5GHz wide dynamic-range attenuator in 0.13µm CMOS technology**
DOĞAN H., Meyer R. G., Niknejad A. M.
Digest of Technical Papers. 2005 Symposium on VLSI Circuits, 2005., Kyoto, Japan, 16 - 18 June 2005, pp.90-93

IX. **A DC-10GHz linear-in-dB attenuator in 0.13 µm CMOS technology**
DOĞAN H., Meyer R. G., Niknejad A. M.
Proceedings of the IEEE 2004 Custom Integrated Circuits Conference (IEEE Cat. No.04CH37571), Orlando, FL, USA, 6 - 08 October 2004, pp.609-612