

## Lect. PhD Mustafa AKTAN

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### Research Areas

Electrical and Electronics Engineering, Electronic, Electronic Circuits, Engineering and Technology

### Courses

Linear Algebra and Differential Equations, Undergraduate, 2019 - 2020

Introduction to Programming for Engineers, Undergraduate, 2019 - 2020

VLSI Design, Postgraduate, 2019 - 2020

### Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A 70-to-2 v Triboelectric Energy Harvesting System Utilizing Parallel-SSHI Rectifier and DC-DC Converters**  
Kara I., Becermis M., Kamar M. A., Aktan M., Dogan H., Mutlu S.  
IEEE Transactions on Circuits and Systems I: Regular Papers, vol.68, no.1, pp.210-223, 2021 (SCI-Expanded)
- II. **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)
- III. **An alternative carry-save arithmetic for new generation field programmable gate arrays**  
Çini U., Aktan M., Morgül A.  
Turkish Journal of Electrical Engineering and Computer Sciences, vol.24, no.2, pp.435-447, 2016 (SCI-Expanded)

### Articles Published in Other Journals

- I. **An algorithm for the design of low-power hardware-efficient FIR filters**  
Aktan M., Yurdakul A., Dündar G.  
IEEE Transactions on Circuits and Systems I: Regular Papers, vol.55, no.6, pp.1536-1545, 2008 (Scopus)

### Refereed Congress / Symposium Publications in Proceedings

- I. **High performance FIR filter design for 6-input LUT based FPGAs**

ÇİNI U., Aktan M.

IEEE International Conference on Electronics, Circuits, and Systems, ICECS 2015, Cairo, Egypt, 6 - 09 December 2015, vol.2016-March, pp.653-656

- II. **Minimizing Energy by Achieving Optimal Sparseness in Parallel Adders**  
Aktan M., Baran D., Oklobdzija V. G.  
22nd IEEE Symposium on Computer Arithmetic, ARITH 2015, Lyon, France, 22 - 24 June 2015, vol.2015-August, pp.10-17
- III. **Optimal transistor sizing and voltage scaling for minimal energy use at fixed performance**  
Oklobdzija V. G., Aktan M., Baran D.  
7th Argentine School of Micro-Nanoelectronics, Technology and Applications, EAMTA 2012, Cordoba, Argentina, 4 - 12 August 2012, pp.1-10
- IV. **Circuit topology considerations for energy efficient design of data-driven systems**  
Nawathe V., Wang L., Aktan M., Balsara P., Oklobdzija V. G.  
2012 28th International Conference on Microelectronics, MIEL 2012, Nis, Serbia, 13 - 16 May 2012, pp.415-418
- V. **A quick method for energy optimized gate sizing of digital circuits**  
Aktan M., Baran D., Oklobdzija V. G.  
21st International Workshop on Power and Timing Modeling, Optimization, and Simulation, PATMOS 2011, Madrid, Spain, 26 - 29 September 2011, vol.6951 LNCS, pp.1-10
- VI. **Multiplier structures for low power applications in deep-CMOS**  
Baran D., Aktan M., Oklobdzija V. G.  
2011 IEEE International Symposium of Circuits and Systems, ISCAS 2011, Rio de Janeiro, Brazil, 15 - 18 May 2011, pp.1061-1064
- VII. **Energy efficient implementation of parallel CMOS multipliers with improved compressors**  
Baran D., Aktan M., Oklobdzija V. G.  
16th ACM/IEEE International Symposium on Low-Power Electronics and Design, ISLPED'10, Austin, TX, United States Of America, 18 - 20 August 2010, pp.147-152
- VIII. **Clocked storage elements robust to process variations**  
Moon J., Aktan M., Oklobdzija V. G.  
2009 8th IEEE International Conference on ASIC, ASICON 2009, Changsha, China, 20 - 23 October 2009, pp.827-830
- IX. **Switching activity calculation of VLSI adders**  
Baran D., Aktan M., Karimiyani H., Oklobdzija V. G.  
2009 8th IEEE International Conference on ASIC, ASICON 2009, Changsha, China, 20 - 23 October 2009, pp.46-49
- X. **Exploration of switching activity behavior of addition algorithms**  
Baran D., Aktan M., Karimiyani H., Oklobdzija V. G.  
2009 52nd IEEE International Midwest Symposium on Circuits and Systems, MWSCAS '09, Cancun, Mexico, 2 - 05 August 2009, pp.523-526
- XI. **Design methodology for clocked storage elements robust to process variations**  
Moon J., Aktan M., Oklobdzija V. G.  
2nd International Conference on Advances in Circuits, Electronics and Micro-electronics - CENICS 2009, Sliema, Malta, 11 - 16 October 2009, pp.20-23
- XII. **Low-power hardware efficient MMSE equalizer design**  
Aktan M., Dündar G., Koca M.  
2008 4th IEEE International Conference on Circuits and Systems for Communications, ICCSC, Shanghai, China, 26 - 28 May 2008, pp.307-311
- XIII. **Design of digital filters for low power applications using integer quadratic programming**  
Aktan M., Dündar G.  
15th International Workshop on Integrated Circuit and System Design: Power and Timing Modeling, Optimization and Simulation, PATMOS 2005, Leuven, Belgium, 20 - 23 September 2005, vol.3728 LNCS, pp.137-145
- XIV. **Design of digital filters for low power applications by reducing the Hamming distance of the filter coefficients using Mean Field Annealing algorithm MFA Yöntemi ile Katsayıların Hamming Uzaklığını**

## **Azaltarak Düşük Güç Uygulamalarına Yönelik Sayısal Süzgeç Tasanmi**

Aktan M., Çini U., Dündar G.

Proceedings of the IEEE 12th Signal Processing and Communications Applications Conference, SIU 2004, Kusadasi, Turkey, 28 - 30 April 2004, pp.646-648

### **Metrics**

Publication: 18

Citation (Scopus): 225

H-Index (Scopus): 7