

Selim Sermet Akbay

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OBJECTIVE

Regular Full time available June 2007 for research and development of radio-frequency/analog electronics. Fields of interest include design of analog and RF circuits, test methodology and automation, and modeling of high-frequency electronics.

EDUCATION

Jan. 2001–present	PhD in Electrical and Computer Engineering Georgia Institute of Technology, Atlanta, GA Expected Grad. May 2007 Thesis Advisor Prof. Abhijit Chatterjee Technical Areas Electrical Design and Applications, Computer
Aug. 2000–May 2002	MS in Electrical and Computer Engineering Georgia Institute of Technology, Atlanta, GA GPA 3.23 / 4.00
Aug. 1995–Jan. 2000	BS in Electrical and Electronics Engineering Middle East Technical University, Ankara, TURKEY GPA 3.70 / 4.00 (High Honors) (15 th out of 220 students) Technical Areas Microelectronics, Computer, Telecommunications
Jan. 1996–June 2000	BS (Double Major) in Computer Science Middle East Technical University, Ankara, TURKEY GPA 3.65 / 4.00 (High Honors) Technical Areas Artificial Intelligence, Numerical Computation

EMPLOYMENT HISTORY

May 2005-Nov 2005	Internship at Intel Test Operations, Intel Corporation , Chandler, AZ. “ <i>Alternate Test of RF Components</i> ,” FINAL REVIEW AVAILABLE.
Aug. 2000 - present	Graduate Research Assistant in School of Electrical and Computer Engineering (ECE), Georgia Institute of Technology , Atlanta, GA
Oct.'02-present	“ <i>Low Cost Built-In Test of Radio-Frequency Circuits</i> ,” Testing and Reliability Engineering Laboratory, Advisor: Prof. A. Chatterjee.
Aug.'00-Oct.'02	“ <i>Novel Architectures and Analysis Techniques for Low-Jitter Multi-Gigahertz Phase-Locked Loops</i> ,” Yamacraw - The 10/100 Gbps Ethernet Project. High Speed VLSI Design Lab, Advisor: Late Prof. J. P. Uyemura.
Mar. 2000-Aug. 2000	Part-time Researcher in VLSI Group, Turkish Scientific and Technological Research Council (TUBITAK) , Ankara, Turkey “ <i>Current Mirroring Integration Infrared and Visible Readout Electronics: Design, Layout, Post-Fabrication Test and Characterization</i> ,” MEMS Research Laboratory, Advisor: Prof. Tayfun Akin.
Feb. 1998-Aug. 2000	Research Assistant in Microelectronics Group Department of Electrical and Electronics Engineering (EEED) Middle East Technical University (METU) , Ankara, Turkey

SKILLS

Languages	English (Fluent), Turkish (Native), German (Beginner)
Computer Languages	C#, C++, Java, Pascal, Ada, Awk, Perl, ML, Lisp
Prof. Applications	Cadence (MS, FB), Agilent ADS, Spectre, VHDL, Verilog, Matlab, Simulink, Spice, Xilinx, Agilent VEE, Labview

HONORS

Nov. 2006	Best Paper Award 2006 Intel DTTC, “Best of DTTC Papers”
Oct. 2000	Colonel Oscar O. Cleaver Award - Outstanding Graduate Student in ECE, Georgia Institute of Technology
Sept. 1996-June 2000	Double Major Member in Computer Engineering, METU
Sept. 1995-June 2000	Middle East Technical University Dean’s Scholar (ranking 30th out of 1.5 million applicants in university entrance examinations)
May 1995	Full Scholarship from Ministry of Education of Turkish Republic for the purpose of attending undergraduate studies in United States
June 1995	Graduated from Ankara Atatürk Anadolu High School ranking 1 st out of 400 with CGPA of 5.00 out of 5.00

PUBLICATIONS

- Low Cost Test of Embedded RF/Analog/Mixed-Signal Circuits in SOPs; S.S. Akbay, A. Halder, A. Chatterjee, D. Keezer; IEEE Transactions on Advanced Packaging; vol.27, issue 2.
- Alternate Test of RF Front Ends with IP Constraints: Frequency Domain Test Generation and Validation; S.S. Akbay, et.al., Proc. International Test Conference 2006 (to be presented).
- Built-In Test of RF Components Using Mapped Feature Extraction Sensors; S. S. Akbay, A. Chatterjee; IEEE VLSI Test Symposium; May 2005.
- Feature Extraction Based Built-In Alternate Test of RF Components Using a Noise Reference; S. S. Akbay, A. Chatterjee; IEEE VLSI Test Symposium; Apr. 2004.
- Alternate Test of RF Mixers by Current Signatures; S. S. Akbay, A. Chatterjee; International Microwave Symposium Wireless Test Workshop; June 2004.
- Signature Testing of Analog and RF Circuits: Algorithms and Methodology; R. Voorakaranam, S.S. Akbay, et.al., IEEE Trans. on Circuits and Systems (to be published).
- On-Chip Self Calibration of RF Circuits Using Specification-Driven Built-In Self Test; D. Han, S. S. Akbay, S. Bhattacharya, A. Chatterjee; IEEE Int. Online Testing Sym.; July 2005.
- A CMOS Visible Image Sensor Array Using Current Mirroring Integration Readout Circuitry; S. S. Akbay, A. Bircan, T. Akin; Proceedings of Eurosensors XIX; Sept. 2000.

RELEVANT CLASS PROJECTS

- *Design of a High-Speed LFSR using PECL Components and Testing on HP83000.* GATECH, ECE 7141, Advanced Digital Systems Testing Project, Spring 2002.
- *Asynchronous Micropipelined Processor Design and Verification in Verilog.* GATECH, ECE 7131, Asynchronous and Self-Timed Systems Design Project, Fall 2001.
- *GSM Direct Conversion Receiver.* GATECH, ECE 6420, Wireless IC Design Project, Fall 2000.
- *Multichannel Multi Point Distribution Service Receiver.* GATECH, ECE 6420, Wireless IC Design Project, Fall 2000.

ACTIVITIES

- **Student Council Executive Board of Packaging Research Center**, GATECH (2003-present)
- **President** in Turkish Student Organization at Georgia Institute of Technology (2003-2005)
- Publicity Chair and Dancer in Turkish Folk Dances Group of Atlanta (2001-present)
- Executive Board Member in Turkish Student Org. at Georgia Institute of Tech. (2000-2003)
- Student Member of the Institute of Electrical and Electronics Engineers (IEEE) (1996-present)

REFERENCES

Abhijit Chatterjee, Prof.

School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA
Phone: (404) 894 1880 Fax: (404) 894 9959 Email: abhijit.chatterjee@ece.gatech.edu
Professor Chatterjee is one of the leaders of research in mixed-signal and RF test. He is currently sponsoring me as a graduate research assistant in his lab.

Tayfun Akin, Prof.

Electrical and Electronics Engineering Department, Middle East Technical University, TURKEY,
Phone: 90 (312) 210 2369 (EST+7hours) Fax: 90 (312) 210 2304 tayfun-akin@metu.edu.tr
Professor Akin is leading the research in MEMS group at Middle East Technical University. He sponsored me as an undergraduate research assistant for 3 years in his lab.