Sameh ATTIA

CONTACT INFORMATION

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RESEARCH INTERESTS

Digital Design, Computer Architecture, VLSI, Network-on-Chip, FPGAs, Embedded Systems and Parallel Computing

EDUCATION

CURRENT
MSc, Electronics and Communications Engineering, Cairo University, Egypt
GPA: **4.0/4.0**
Thesis: "Optimizing FPGA-based Hard NoCs"
Supervisor: Prof. Hossam A. H. Fahmy, Assist. Prof. Hassan Mostafa

MAY 2013
BSc, Electronics and Communications Engineering, Cairo University, Egypt
Rank: **5th/280** | *Distinction with honors* | Cumulative rate: 90.51%
Graduation project: "SDR Implementation of 802.11a receiver on USRP E100"
Supervisor: Prof. Serag El-Din Habib, Prof. Mohamed Khairy

PROFESSIONAL EXPERIENCE

JUL 2014-CURRENT
Research Assistant, Cairo University
Research Project: "Design of High Speed Optical Communication Access Networks with Optical On-Chip Network FPGA Integration"
Research Activity:
- Designing and implementing soft and hard Network-on-Chip (NoCs) for FPGA
- Embedding the NoC inside FPGA layout for fabrication using UMC 130nm
- Prototyping Optical NoC using Virtex7 Kits and optical fibers

SEPT 2013-CURRENT
Teaching Assistant, Department of Electronics and Communications Engineering, Cairo University
Teaching Activity:

-Microprocessor Design Course	Fall 2015, 2014
-Data Structures Course	Spring 2015, 2016
-Operating Systems Course	Spring 2015, 2014
-Logic Design Course	Spring 2014, Fall 2013
-Computer Architecture Lab	Fall 2015, 2013
-Signals and Modulation Lab	Spring 2015, Fall 2014

INDRUSTRIAL TRAINING EXPERIENCE

SUMMER 2012
Wasiela Co. (Formerly Varkon Semiconductors)
FPGA Design Flow, Fast division and Matrix inversion algorithms

SUMMER 2011, 2012
Security Meter Co.
Linux Environment, System Programming and Linux-based Embedded systems

Publications

[1] K. Helal, **S. Attia**, T. Ismail, and H. Mostafa, "Comparative Review of NoCs in the Context of ASICs and FPGAs," *IEEE International Symposium on Circuits and Systems (ISCAS 2015)*, Lisbon, Portugal, IEEE, pp. 1866-1869, 2015. (Published)

[2] K. Helal, **S. Attia**, T. Ismail, and H. Mostafa, "Priority-Select Arbiter: An Efficient Round-Robin Arbiter," *IEEE International Conference on NEW Circuits and Systems (NEWCAS 2015)*, Grenoble, France, IEEE, pp. 1-4, 2015. (Published)

[3] K. Helal, **S. Attia**, T. Ismail, and H. Mostafa, "Dual Split-Merge: A High Throughput Router for FPGAs," *IEEE Transactions on Circuits and Systems II*. (Submitted)

Selected Extracurricular Activities

2013-Current	**Trainer**, on Unix/Linux Environment and C/C++ Programming languages
Aug 2011-Aug 2012	**Vice-Chairman**, Communications and Electronics Club for Engineers (CECE), Cairo University Organizing the 29th National Radio Science Conference | Apr 2012 Organizing various workshops, courses and events for students
Feb 2011-Aug 2011	**Head**, Academic Committee, Communications and Electronics Club for Engineers (CECE), Cairo University
Aug 2011-Jul 2012	**Team Leader**, Electronics Club, IEEE Cairo University Student Branch

Relevant Skills

HDL:	Verilog, VHDL
CAD Tools:	Modelsim, ISE, Vivado, Quartus, Design Compiler, Encounter, Virtuoso
Programming:	C/C++, MATLAB, CUDA, Assembly, Bare Metal, System programming
Hardware:	Xilinx FPGAs, TI C64+ DSP, Beagle board, USRPs, PIC Microcontrollers
Others:	Unix/Linux Environment, LaTeX, ISTQB *Certified*, CCNA *Cisco Certified*

Honors and Awards

Sept 2013	**Teaching Assistantship**, by Department of Electronics and Communications Engineering, Cairo University for being ranked 5th of 280 students
Sept 2013	**Masters Scholarship**, by Department of Electronics and Communications Engineering, Cairo University
Apr 2012	Honored by Department of Electronics and Communications Engineering for my efforts in organizing the 29th National Radio Science Conference

Languages and Scores

English: Excellent	TOEFL: R:27 L:26 S:20 W:25 Total:98
Arabic: Mothertongue	GRE: V:153 Q:165 AW:3.5

References

Prof. Hossam A. H. Fahmy	hfahmy@alumni.stanford.edu
Prof. Serag E. D. Habib	serag@eng.cu.edu.eg
Assist. Prof. Hassan Mostafa	hmostafa@uwaterloo.ca