

Zahi Samir Nakad

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Education

Doctor of Philosophy in Computer Engineering, expected December 2003.
Virginia Polytechnic Institute and State University (Virginia Tech).

Dissertation: Architectures for e-Textiles

Advisor: Dr Mark T. Jones

GPA: 3.95/4.0

Master of Science in Computer Engineering, received September 2000.

Virginia Polytechnic Institute and State University (Virginia Tech).

Thesis: High Performance Application on Reconfigurable Clusters

Advisor: Dr. Mark T. Jones

GPA: 3.92/4.0

Bachelor of Engineering in Computer and Communication Engineering,

received June 1998 (graduated with distinction).

American University of Beirut (A.U.B.), Beirut, Lebanon.

Secondary Evangelical School (S.E.S.), Zahle, Lebanon (1979-1994)

Research Experience

Graduate Research Assistant (PhD research)

Configurable Computing Lab (June 2000 – present)

Bradley Department of Electrical and Computer Engineering, Virginia Tech

- Started from scratch on a novel project in the e-textiles area
- Spearheaded the creation of the e-textiles group under the guidance of Dr. Mark Jones and Dr. Thomas Martin
- Worked as a senior researcher since September 2002; the research group expanded to six graduate research assistants. Weekly meetings are used to keep progress on track, in addition to daily communication with the research team.

Graduate Research Assistant (MS research)

Configurable Computing Lab (January 1999 – May 2000)

Bradley Department of Electrical and Computer Engineering, Virginia Tech

- Worked on the DARPA-funded SLAAC project. Assisted in development of an API for reconfigurable computing. Worked on creating a fast, reconfigurable, and scalable FIR filter using VHDL and JHDL. Created constant coefficient multipliers to be used with this implementation.

Teaching Experience

Graduate Teaching Assistant (grader position)

Bradley Department of Electrical and Computer Engineering (September 1998 – December 1998)

Graded programming assignments.

Guest Lectures:

ECE 4504 (Computer Organization): Fall 2001, Fall 2002

ECE 4984 (Electronic Textiles): Fall 2001

Other Experience

NCR Corporation, Beirut branch (Summer 1997)

Assisted engineers under a co-op course in the engineering program at AUB.

The work revolved around:

- Technical assistance at customer sites for computers and networks
- Configuring personal computers for personnel and check sorters

Honors/Affiliations

- Phi Kappa Phi, Honor Society
- IEEE student member and Computer Society affiliate
- Cedars of Lebanon (Virginia Tech)

Research Interests

- Computer architecture, including embedded systems and FPGAs
- Electronic Textiles
- Configurable computing, hardware description languages
- Wearable/ubiquitous computing
- Distributed computing
- VLSI design
- Computer networks
- Analog/digital circuit design

Teaching Interests

Graduate and undergraduate courses in computer engineering.

Computer Skills

C++	JAVA	VHDL	JHDL	Visual DSP
Ptolemy	Opnet	PSpice	Cadence (VLSI)	
ArcView	ArcInfo	Matlab		

Refereed Publications

1. M. Jones, T. Martin, and Z. Nakad, "A Service Backplane for E-Textile Applications," Workshop on Modeling, Analysis, and Middleware Support for Electronic Textiles (MAMSET), pp. 15-22, October 2002.
2. J. Edmison, M. Jones, Z. Nakad, and T. Martin, "Using Piezoelectric Materials for Wearable Electronic Textiles," Proceedings of the Sixth International Symposium on Wearable Computers (ISWC 2002), pp. 41-48, October 2002.
(21 full papers accepted from 109 submissions)

3. Zahi Nakad, Mark Jones, and Tom Martin, “*Communication in Electronic Textile Systems*,” The 2003 International Conference on Communications in Computing (CIC 2003), pp. 37-43, June 2003.
4. Mark Jones, Zahi Nakad, Paul Plassmann, and Yanhua Yi, “*The Use of Configurable Computing in Science Simulations*,” The 2003 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA’03), pp. 520-524, June 2003.
5. D. Marculescu, R. Marculescu, N. Zamora, P. Stanley-Marbell, S. Park, S. Jayaraman, S. Jung, C. Lauterbach, W. Weber, T. Kirstein, D. Cottet, J. Grzyb, G. Troster, M. Jones, T. Martin, and Z. Nakad, “Electronic Textiles: A Platform for Pervasive Computing,” Proceedings of the IEEE (accepted).

**Other
Publications**

1. Zahi Nakad, “*Architectures for E-textiles*,” The First International Conference on Mobile Systems, Applications, and Services (Mobisys 2003), May 2003 (Poster Session).
2. Tom Martin, Mark Jones, Zahi Nakad, Ravi Shinoy, Tanwir Sheikh, Dave Lehn, Madhup Chandra, Josh Edmison, “*Analyzing the Use of E-textiles to Improve Application Performance*,” Wireless Ad Hoc, Sensor, and Wearable Networks (VTC 2003), to appear October 2003. (Accepted on basis of extended abstract) (720 acceptances from 2400 submissions).

Languages

English, Arabic, Lebanese dialect, French (intermediate)

Hobbies/Sports

Weight training, cycling, mountain biking, hiking, table tennis, basketball, Lebanese folk dancing (dabkeh)

References

Dr. Mark Jones, Associate Professor
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Dr. Peter Athanas, Associate Professor
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