CURRICULUM VITAE

FLAVIUS GRUIAN

ADDRESS

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PERSONAL DETAILS

Gender: Male
Date of birth: 1972-08-05
Place of birth: Oradea, Romania
Citizenship: Romanian

ACADEMIC DEGREES

1996	Masters degree (Diploma of Engineering) in Computer Science from the Department of Automatics and Computers, 'Politehnica' University, Timisoara, Romania.
2000	Licentiate degree in computer science from the Department of Computer and Information Science, Linköping University, Sweden. Report title: *Energy-Aware Design of Digital Systems*, ISBN 91-7219-669-6. Advisors: Prof. Krzysztof Kuchcinski and Prof. Petru Eles.
2002	PhD degree in Computer Science from the Department of Computer Science, Lund University, Sweden. Thesis title: *Energy-Centric Scheduling for Real-Time Systems*, ISBN 91-628-5494-1. Advisors: Prof. Krzysztof Kuchcinski and Prof. Petru Eles.

PRINCIPAL FIELDS OF INTEREST

Java in embedded systems and embedded systems design.
Low energy and low power embedded and real-time systems.
Hardware/software co-design.

DISTINCTIONS/AWARDS

1994	2nd place with the 'Politehnica' University of Timisoara team at The 1st Annual Students' International Contest 'Hard&Soft' Suceava, University of Suceava, Romania.
1995	3rd place with the 'Politehnica' University of Timisoara team at The 2nd Annual Students' International Contest 'Hard&Soft' Suceava, University of Suceava, Romania.
1998	Best Paper Award at The 6th PhD Student Conference at Linkping University, IDA-OPEN, Sweden, for *Operation Binding and Scheduling for Low Power Using Constraint Logic Programming*.

EMPLOYMENT

1995–1996:	co-founder/part-time programmer at DaPReDi S.R.L software company.
1997–2000:	graduate student, Department of Computer and Information Science, Linköping University.
2000–2002:	graduate student, ESDlab, Department of Computer Science, Lund University.
2002–2005:	visiting scientist, ESDlab, Department of Computer Science, Lund University.
2005–2006:	post-doctoral research fellow at the Department of Electrical and Computer Engineering, The University of Auckland, New Zealand.
2006–present:	visiting scientist, ESDlab, Department of Computer Science, Lund University.

CURRENT OFFICE ADDRESS

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RESEARCH EXPERIENCE

1998–2000	Member of WITAS: the Wallenberg Laboratory on 'Information Technology and Autonomous Systems' at Linköping University
2000–2002	Member of ARTES: A network for Real-Time research and graduate Education in Sweden
2005	Post-doctoral research fellow, at the Department of Electrical and Computer Engineering, The University of Auckland, New Zealand
2006–present	Co-supervisor for three post-graduate students in the ESDlab, Department of Computer Science, Lund University
Cooperation:	• Martin Schoeberl, Vienna Technical University, Austria, (2003–present) • Prof. Zoran Salcic and Ass. Prof. Partha Roop, Embedded Systems Research Group, The University of Auckland, New Zealand (2005–present) • Prof. Kim Jihong, Computer Architecture & Embedded Systems Laboratory, Seoul National University, Korea (2001–present)

TEACHING EXPERIENCE

(1)	Course leader for "Database Technology" (EDA636) undergraduate course at Lund Institute of Technology, Helsingborg campus.
(2)	Course development and leading of "Design of Embedded Systems, Advance Course" (EDA385) undergraduate course at Lund Institute of Technology.
(3)	Teaching assistant of undergraduate courses "Design of Embedded Systems" (EDA380), "Real-Time Programming" (EDA040), "Database Technology" (EDA216) at Lund Institute of Technology.
(4)	Teaching assistant of undergraduate courses "Concurrent Programming and Operating Systems" (TDDB12) and "Computer Networks" (TDTS43) at Linköping University.
(5)	Guest lecturer at the Advanced Digital IC Design course, Dept. of Electro-science, Lund Institute of Technology (2001-2003)
(6)	Invited lecturer at the European Summer School on Embedded Systems, Sweden, 2003. A summer school for graduate students and early-career researchers.
(7)	MSc project advisor/examiner for a number of final projects at Lund Institute of Technology.

VISITING APPOINTMENTS

March-May 1996	guest student, CADLAB, Department of Computer and Information Science, Linköping University.
May-June 2001	visiting student, Computer Architecture & Embedded Systems Laboratory, School of Computer Science and Engineering, Seoul National University, Korea. Sponsored by ARTES.

OTHER APPOINTMENTS

2003	Invited lecturer at the 1st European Summer School in Embedded Systems (ESSES 2003), Västerås, Sweden, July-October 2003.
2003	Session Chair at the 2003 International Symposium on Low-Power Electronics and Design (ISLPED 2003), Seoul, Korea, August 25-27, 2003.
2006	Organizer of the tutorial entitled *BlueSpec: A technology for the future of hardware design*, during Lund Software Days venture, October 16-18, 2006.
2007	Invited talk (Title: *BlueSpec System Verilog vs. VHDL in the Case of a Java Optimized Processor*) at the Department of Informatics and Mathematical Modeling, Technical University of Denmark, Lyngby, May 30, 2007.
-	Reviewer for a number of conferences and journals, such as DAC, ISCA, ISLPED, ID&TC.

List of Publications

Peer-reviewed Conference Contributions

1. F. Gruian and K. Kuchcinski; Low energy architecture selection and task scheduling for system-level design. In *Proceedings of the 25th EuroMicro Conference*, volume 1, pages 296–302, September 1999.
2. R. Szymanek, F. Gruian and K. Kuchcinski; Application of constraint programming to digital system design. In *Proceedings of the 1st Workshop on Constraint Programming for Decision and Control*, pages 57–64, 1999.
3. F. Gruian; System-level design methods for low-energy architectures containing variable voltage processors. In B. Falsafi and T.N. Vijaykumar, editors, *Lecture Notes in Computer Science*, number 2008, pages 1–12. Springer, 2000. First International Workshop on Power-Aware Computer Systems.
4. R. Szymanek, F. Gruian and K. Kuchcinski; Digital system design using constraint logic programming. In *Proceedings of the 2nd International Conference and Exhibition on The Practical Application of Constraint Technology and Logic Programming*, pages 10–12, 2000.
5. F. Gruian and K. Kuchcinski; LEneS: Task-scheduling for low-energy systems using variable voltage processors. In *Proceedings of the 2001 Asia South Pacific – Design Automation Conference*, pages 449–455, January 30 – February 2 2001.
6. F. Gruian; Hard real-time scheduling for low-energy using stochastic data and DVS processors. In *Proceedings of the 2001 International Symposium on Low Power Electronics and Design*, pages 46–51, August 6–7 2001.
7. F. Gruian; On energy reduction in hard real-time systems containing tasks with stochastic execution times. In *IEEE Workshop on Power Management for Real-Time and Embedded Systems*, pages 11–16, May 29 2001.
8. F. Gruian and K. Kuchcinski; Uncertainty-based scheduling: Energy-efficient ordering for tasks with variable execution time. In *Proceedings of the 2003 International Symposium on Low Power Electronics and Design*, pages 465–468, 2003.
9. F. Gruian, P. Andersson, K. Kuchcinski and M. Schoeberl; Automatic Generation of Application-Specific Systems Based on a Micro-programmed Java Core In *Proceedings of the 20th ACM Symposium on Applied Computing, Embedded Systems track*, pages 879–884, 2005.
10. F. Gruian and Z. Salcic Designing a Concurrent Hardware Garbage Collector for Small Embedded Systems. In *Proceedings of the Asia-Pacific Computer Systems Architecture Conference*, pages 281–294, 2005.
11. Z. Salcic, F. Gruian, P. Roop and A. Wahid; A Scheduler Support Unit for Reactive Microprocessors . In *Proceedings of the 12th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications*, pages 368–372, 2006.
12. F. Gruian, P. Roop, Z. Salcic and I. Radojevic; The SystemJ Approach to System-Level Design. In *Proceedings of the 4th ACM-IEEE International Conference on Formal Methods and Models for Codesign*, pages 149–158, 2006.
13. F. Gruian and M. Westmijze; BlueJEP: A Flexible and High-Performance Java Embedded Processor To be presented at *The 5th Workshop on Java Technologies for Real-Time and Embedded Systems* (JTRES), 2007.
14. F. Gruian and M. Westmijze; BluEJAMM: A Bluespec Embedded Java Architecture with Memory Management. To be presented at *The 1st International Workshop on Real Time and Embedded Systems* (RTES), in conjunction with SYNASC 2007.

Unreviewed Conference Submissions

1. F. Gruian and M. Westmijze; VHDL vs. BlueSpec System Verilog: A case study on a Java embedded architecture. Submitted for review to the *23rd ACM Symposium on Applied Computing*, Embedded Systems track, 2008.

BOOK CHAPTERS

1. F. Gruian and K. Kuchcinski; Chapter 5: Using DVS Processors to Achieve Energy Efficiency in Hard Real-Time Systems, in *ARTES – A network for Real-Time research and graduate Education in Sweden,1997-2006*, H. Hansson Ed., Uppsala University, ISBN: 91-506-1859-8, 2006.
2. K. Jihong, F. Gruian and D. Shin *Dynamic Voltage Scaling for Low-Power Hard Real-Time Systems*. in *The VLSI Handbook*, 2nd edition, W.-K. Chen Ed., CRC Press, Inc., ISBN: 084934199X, 2006.

BOOKS

1. F. Gruian. *Energy-Aware Design of Digital Systems.* Licentiate Thesis 809, Linköping Technical University, IDA, ISBN 91-7219-669-6, ISSN 0280-7971, March 2000.
2. F. Gruian. *Energy-Centric Scheduling for Real-Time Systems*. Doctoral dissertation, No. 15, Dept. of Computer Science, Lund Institute of Technology, ISBN 91-628-5494-1, ISSN 1404-1219, December 2002.