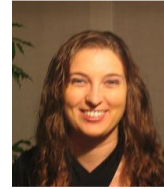


FRIGERIO LAURA

Curriculum Vitae



PERSONAL DATA

DATE OF BIRTH 3rd August 1980
PLACE OF BIRTH Lecco (Italy)
CITIZENSHIP Italian
SEX Female

HOME ADDRESS Via Gramsci 11
23849 Rogeno (LC)
Italy

OFFICE ADDRESS Via Fucini, 2
20133 Milano (MI)
Italy

PHONE NUMBER +393332017665 (Personal)

EMAIL laura.frigerio@polimi.it, lau.frigerio@gmail.com

EDUCATION

- 2006 – now **Ph.D. Student in Computer Engineering** at *Politecnico di Milano*
Area of research: Embedded systems design, HW/SW codesign, Fault tolerant systems.
In December 2007 ‘excellent’ rating in the intermediate review of the PhD work.
In July 2008 Best Paper at the PhDay workshop, Politecnico di Milano.
- Jun 08 – Aug 08 **Visiting student** at *Manufacturing Technology Group, Cisco Systems, Inc.*, San Jose, CA (USA).
- Sep 07 – May 08 **Visiting student** at *European Technology Center, Altera*, High Wycombe (UK).
- 2005-2006 **Second level Master in Information Technology** (one year) at *Cefriel* (Center of Excellence For Research, Innovation, Education and industrial Labs partnership) Milano, Embedded Systems Design area.
First classified in the admission test out of 100 students.
Thesis: “Tool chain analysis for Virtex-II Pro using transmission chain of physical layer of IEEE 802.16 as a benchmark” supported by *Siemens*, Italy.
Final mark: 110/110.
- 1999 – 2005 **Computer Engineering Degree** (five years, equivalent to **B.Sc.** and **M.Sc.**), *Politecnico di Milano*.
25th classified in the admission test out of 600 students.
Thesis: “A new framework for design and simulation of complex hardware/software systems”.

Mark average: 29.328/30.
Final mark: 100/100 summa cum laude.

2003- 2006 Resident student at **Collegio di Milano** (one of the Italian Colleges of Excellence). Collegio di Milano provides an educational path organized in interdisciplinary classes, cultural activities, foreign languages classes to complete the academic preparation provided by the universities.

Some of the activities performed: "Women in Society" discussion group, "Chinese Economy and Globalization" Forum, "Story of Philosophy" class, Acting class, English and German classes.

1994-1999 **High degree diploma** (five years) at the technical school "I.T.C. Romagnosi", Erba (CO), Italy.
Final mark: 100/100.

CERTIFICATIONS

Feb06 Qualifying examination for the **engineer profession** in Italy.
Final mark 100/100

WORK EXPERIENCES

ENGINEERING

Sep 07 – May 08 **Visiting student**, Manufacturing Technology Group, Cisco Systems, Inc., San Jose, CA (USA).

Methodologies for the functional diagnosis of faults in embedded systems.

Jun 08 – Aug 08 **Visiting student**, European Technology Center, *Altera*, High Wycombe (UK).
HW-SW codesign and performance evaluation for packet processing applications.

2006 **Consultant** in Embedded Systems Design division, *Cefriel*.
Design of a hw/sw systems for packet processing to be implemented on FPGA.
Evaluation of tools for high level design and synthesis.

UNIVERSITY TEACHING ACTIVITIES

2007 **Lecturer** for the class "Reti logiche" (Computing Hardware), B.Sc. in Electronic Engineering, Politecnico di Milano

Lecturer for the class Methodologies for Hardware/Software projects, M.Sc. in Computer Engineering, Politecnico di Milano.

2006 **Lecturer** for the class "Informatica B" (Informatics), M.Sc. in Computer Engineering, Politecnico di Milano

Lecturer for the class "Progettazione e sistemi digitali" (Digital systems design), B.Sc. in Computer Engineering, Politecnico di Milano

Lecturer for the seminar "SystemC", Information Technology Master, Cefriel.

Lecturer for the class “Metodologie di progetto per Sistemi Hardware/Software” (Methodologies for Hardware/Software projects), M.Sc. in Computer Engineering, Politecnico di Milano.

2005 **Lab assistant** for the class “Progettazione e sistemi digitali” (Digital systems design), B.Sc. in Computer Engineering, Politecnico di Milano.

OTHER ACTIVITIES

2007 **Tutoring** activity to assist M.Sc. Computer Engineering students in preparing their academic curricula, Politecnico di Miano.

1999-2003 Many experiences as **teacher for software applications** in Adult learning classes and for the preparation of ECDL certification (more than 200 hours of activity) at School District and “I.T.C. Romagnosi” in Erba (Italy).

Topics: European Computer Driving License (ECDL) preparation, Microsoft Windows, Microsoft Office (Word, Excel, PowerPoint), Macromedia Dreamweaver, HTML, Adobe Photoshop.

2001 **Author of the CD-ROM** of the book “Tavole Finanziarie e statistiche” (Financial and statistical tables) Attilia Sandionigi, Flavio Frigerio, Laura Frigerio – Tramontana – 2001

1998 Summer **internship** in the **software company** “E.D.C. informatica” - Merone (CO) - Italy.

PUBLICATIONS

INTERNATIONAL JOURNALS

[J1] M. Tagliasacchi, L. Frigerio, S. Tubaro, Rate-distortion analysis of motion-compensated interpolation at the decoder in Distributed Video Coding, *IEEE Signal Processing Letters*, Vol. 14, N. 9, September 2007.

[J2] L. Frigerio, N. Zagaglia, Adjacent Vertex Distinguishing Edge Colorings of the Direct Product of a Graph by a Path or a Cycle, *Australasian Journal of Combinatorics*, Submitted October 2008.

INTERNATIONAL CONFERENCES, SYMPOSIUMS AND WORKSHOPS

[C1] L. Frigerio, F. Salice, A Performance-Oriented Hardware/Software Partitioning for Datapath Applications, *Proceedings of IEEE/ACM International Conference on Hardware-Software Codesign and System Synthesis*, Atlanta, October 2008, accepted.

[C2] L. Frigerio, M. A. Radaelli, F. Salice, A Generalized Approach for the Use of Convolutional Coding in SEU Mitigation, *Proceedings of IEEE International Symposium on Defect and Fault Tolerance in VLSI Systems*, Cambridge (MA), 2008, accepted.

- [C3] L. Frigerio, K. Marks, A. Krikelis, Timed Coloured Petri Nets for Performance Evaluation of DSP Applications, *Proceedings of IEEE VISI-Soc Conference*, Rhodes 2008, accepted.
- [C4] L. Frigerio, M. A. Radaelli, F. Salice, Convolutional coding for SEU mitigation, *Proceedings of IEEE European Test Symposium*, Torino, Italy, May 2008.
- [C5] L. Frigerio, F. Salice, *Exploiting RAM for fault-tolerant adders in FPGA*, *Proceedings of IEEE International Design and Test workshop*, Cairo, December 2007.
- [C6] L. Frigerio, F. Salice, Ram-based fault tolerant state machines for FPGA, *Proceedings of IEEE Design and Fault Tolerant Symposium*, Rome, Italy, September 2007.
- [C7] M. Tagliasacchi, L. Frigerio, S. Tubaro, Analysis of coding efficiency of motion-compensated interpolation at the decoder in Distributed Video Coding, *Proceedings of IEEE International Conference on Image Processing*, San Antonio, TX, September 2007.
- [C8] C. Brandolese, D. Crespi, L. Frigerio, F. Salice, A New Framework for Design and Simulation of Complex Hardware/Software Systems, *Proceedings of Euromicro Conference on Digital System Design*, Lubeck, August 2007.
- [C9] C. Bolchini, C. Brandolese, L. Frigerio, V. Rana, F. Salice, M. Santambrogio, RoadRunner and IPGen: A Combined Solution to Speedup Configurable Systems Design, *Proceedings of IEEE Southern Conference on Programmable Logic*, SPL'2007 Mar del Plata, Argentina, 2007.
- [C10] C. Bolchini, C. Brandolese, W. Fornaciari, L. Frigerio, F. Salice, A DataPath Oriented, IP-Based Framework for Flexible Design Exploration, *IEEE Electronic Design Processes (EDP) Workshop*, Monterey, California, April 2006.
- [C11] C. Bolchini, L. Frigerio, F. Salice, B. Eklow, A. Suvatne, E. Brambilla, F. Fanzoso, M. Martin, An incremental approach to functional diagnosis, Submitted to *IEEE Conf. Design, Automation and Test in Europe* 2009.

NATIONAL CONFERENCES, SYMPOSIUMS AND WORKSHOPS

- [N1] L. Frigerio, A Methodology for the Design and Simulation of Datapath Applications, PhDay workshop, Politecnico di Milano, July 2008. **Best Paper Award.**

INTERNAL REPORTS

- [I1] L. Frigerio, Analysis of coding efficiency of motion-compensated interpolation at the decoder, PhD Minor Research Thesis, July 2007.
- [I2] L. Frigerio, Adjacent vertex distinguishing edge color of the direct product of a graph by a path or a cycle, PhD Minor Research Thesis, July 2007.

EDUCATIONAL BOOKS

- [B1] Attilia Sandionigi, Flavio Frigerio, Laura Frigerio, *Tavole Finanziarie e statistiche*, (Financial and statistical tables), Tramontana, 2001.

RESEARCH INTERESTS

Principal interests: HW/SW codesign methodologies, digital systems design and simulation, fault tolerant techniques for digital systems, SEU (Single Event Upset) protection in FPGA, Petri Net modelling

Other interests: Distributed Video Coding, Graph colouring.

COMPUTER SKILLS

Operating systems: good knowledge of Windows, Unix, Linux

Programming languages: C, C++, Java, HTML, SQL

Hw description languages: VHDL, Verilog, SystemC

Hw design tools: Mentor Graphics Modelsim, Xilinx ISE, Xilinx EDK, Synplicity Synplify DSP, Altera QuartusII.

FOREIGN LANGUAGES

Italian Mother tongue

English Fluent in spoken and written.
From September 2007 resident in United Kingdom.
In 2005 and 2006 Advanced courses in Collegio di Milano with "Rassias Method"
In September 2004 TOEFL certification with final mark 253/300.

German Elementary knowledge both in spoken and written.
In 2005 and 2006 elementary classes in Collegio di Milano.

OTHER INTERESTS

Sports: regular swimming activity, trekking

Interest: technology, reading, travels.