

Michele Fabiano

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Nationality: Italian

Date of Birth:
28th November 1984



EDUCATION

▪ PHD STUDENT

From February 2010
Torino, ITALY

Politecnico di Torino – Dipartimento di Automatica e Informatica (DAUIN)
Corso Duca degli Abruzzi, 24 – 10129 Torino – Italy – www.polito.it

Main Topic of Research: Designing Flash-memories based system (for space applications)

(EN) *Designing a mass-memory device (i.e., a solid-state recorder) is one of the typical issues of mission-critical space system applications. Flash-memories could be used for this goal: a huge number of parameters and trade-offs need to be explored. Flash-memories are nonvolatile, shock-resistant and power-economic, but in turn have different drawback: e.g., their cost is higher than normal hard disk and the number of erasure cycles is bounded. Moreover space environment presents various issues especially because of radiations: different and quite often contrasting dimensions need to be explored during the design of a flash-memory based solid-state recorder. No systematic approach has so far been proposed to consider them all as a whole: as a consequence a novel design environment is aimed at supporting the design of flash-based mass-memory device for space applications.*

Main collaboration: Thales Alenia Space – Torino

▪ LAUREA II LIVELLO (MASTER DEGREE) – COMPUTER SCIENCE ENGINEERING 110 / 110 e lode

January 2007 – December 2008
Napoli, ITALY

Università degli Studi di Napoli "Federico II"
Piazzale Tecchio 80 – 80125 Napoli – Italy – www.unina.it

Title of the Thesis: Flash-memory for space applications: testing and reliability

▪ LAUREA I LIVELLO (BACHELOR DEGREE) – COMPUTER SCIENCE ENGINEERING 110 / 110 e lode

September 2003 – December 2006
Napoli, ITALY

Università degli Studi di Napoli "Federico II"
Piazzale Tecchio 80 – 80125 Napoli – Italy – www.unina.it

Title of the Thesis: Embedded System Development on a FPGA Hardware

(EN) *I worked on a FPGA device installed on the XUP (Xilinx University Program) development board; I dealt with LEON2 and LEON3MP processors, two Open Source VHDL processors by Gaisler Research; all results were put together with the title "Embedded System Development on a FPGA Hardware" and they became a "manual" about how to tackle the practical problems dealing with LEON and synthesis*

▪ DIPLOMA DI LICENZA MEDIA SUPERIORE (HIGH SCHOOL) 100 / 100

September 1998 – July 2003
Avellino, ITALY

Liceo Scientifico "Pasquale Stanislao Mancini"
Via De Conciliis, 1 – 83100 Avellino – Italy

EMPLOYMENT HISTORY

- **Assistant Lecturer for Telecommunication** From February 2010
Torino, ITALY

SUISS – Scuola Universitaria Interfacoltà in Scienze Strategiche
Palazzo degli Stemmi, Via Po, n. 31 – 10124 Torino – Italy - <http://scienzestrat.campusnet.unito.it/>

I prepared and held lectures related to Telecommunication for the students of the 1st year of Scienze Strategiche e delle Comunicazioni of Scuola Universitaria Interfacoltà in Scienze Strategiche;

- **Assistant Lecturer for Digital System Design and Dependability** September – November 2009
Torino, ITALY

Politecnico di Torino
Corso Duca degli Abruzzi, 24 – 10129 Torino – Italy – www.polito.it

I prepared and held lectures related to ModelSim™, Design Vision™ and Tetramax™ by Synopsys for the University course on Dependability of Digital Systems of the 2nd year of Electronic Engineering Master Degree;

- **Assistant Lecturer for Automatic Control** February – June 2009
Torino, ITALY

SUISS – Scuola Universitaria Interfacoltà in Scienze Strategiche
Palazzo degli Stemmi, Via Po, n. 31 – 10124 Torino – Italy - <http://scienzestrat.campusnet.unito.it/>

I prepared and held lectures related to Automatic Control for the students of the 2nd year of Scienze Strategiche e delle Comunicazioni of Scuola Universitaria Interfacoltà in Scienze Strategiche;

- **Apprenticeship** June – August 2006
Avellino, ITALY

Metoda Spa - Computer Engineering and Automation
Via Ammaturo 124 – 83100 Avellino – Italy – www.metoda.it

I worked on the programming and configuration of a Smart Card "Key Opener", based on a Microchip™ PIC16F84 microcontroller;

PERSONAL SKILLS AND COMPETENCES

- **PROGRAMMING:** C, C++, JAVA, MATLAB;
- **ASSEMBLER LANGUAGE:** MC68K (ASIM SIMULATOR);
- **VHDL SYNTHESIS TOOLS:** XILINX ISE WEBPACK;
- **VHDL SIMULATING TOOLS:** MODELSIM;
- **LINUX-LIKE ENVIRONMENT:** CYGWIN;
- **ELECTRICAL SIMULATION:** PSpice;
- **OS:** LINUX, WINDOWS XP, WINDOWS VISTA;
- **INTEGRATED CIRCUIT DESIGN:** MICROWIND;
- **COMPUTER NETWORKS SIMULATORS;**
- **MICROSOFT OFFICE:** WORD, EXCEL, POWERPOINT, ACCESS;
- **GOOGLE INSTRUMENTS;**
- **NINTENDO WII:** HARDWARE/SOFTWARE SKILLS;
- **APPLE IPHONE:** HARDWARE/SOFTWARE SKILLS;

LANGUAGE SKILLS

- **ITALIAN**

Mother tongue

- **ENGLISH**

Reading Skills: EXCELLENT

Writing Skills: GOOD

Speaking Skills: EXCELLENT

CERTIFICATE: INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM (**IELTS**) WITH MARK **7.0**

- **FRENCH**

Reading Skills: BASIC

Writing Skills: BASIC

Speaking Skills: GOOD

SOCIAL SKILLS AND COMPETENCES

BEST (BOARD OF EUROPEAN STUDENTS OF TECHNOLOGY) EXPERIENCE:

- Member of BEST Napoli April 2007 – December 2009, Napoli, ITALY
- Treasurer of BEST Napoli October 2007 – October 2008, Napoli, ITALY
- Cultural Exchange with LBG Porto March 2008, Porto, PORTUGAL
- Cultural Exchange with LBG Tallinn April – May 2008, Tallinn, ESTONIA
- Cultural Exchange with LBG Paris École Polytechnique October 2008, Paris, FRANCE

ORGANISATIONAL SKILLS AND COMPETENCES

- 1st Place at Regional Level with Menti@Contatto 2008 – Grants achieved;
- BEST: just see “Social Skills and Competences”;
- Training about “Conflict Solving” and “Project Management”

INTERESTS

- Sports: Basketball, Soccer, Running;
- Music: I love to listen and to play music; I left my "rock band" in 2004;
- Traveling: just see BEST

PUBLICATIONS

- **“Flash-memories in Space Applications: Trends and Challenges”** Sep 2009, Moscow, RUSSIA

Proceedings
Caramia M., Di Carlo S., **Fabiano M.**, Prinetto P.
EWDTS 2009 : IEEE 7th East-West Design & Test Symposium 2009
IEEE Computer Society (USA)
EWDTS 2009 : IEEE 7th East-West Design & Test Symposium 2009, Moscow (Russian Federation) Sep 2009, 18-21
pp.429-432

- **“Exploring Design Dimensions in Flash-based Mass-memory Devices”** Oct 2009, Grenoble, FRANCE

Proceedings
Caramia M., Di Carlo S., **Fabiano M.**, Prinetto P.
IWSSPS 2009 : 4th International Workshop on Software Support for Portable Storage
IWSSPS 2009 : 4th International Workshop on Software Support for Portable Storage, Grenoble (France) Oct 2009, 15
pp.43-48

- **“FLARE: a Design Environment for Space Applications”** 4 - 6 Nov 2009, San Francisco, CA, USA

Proceedings
Caramia M., Di Carlo S., **Fabiano M.**, Prinetto P.
HLDVT 2009 : IEEE International High Level Design Validation and Test Workshop, 2009
IEEE Computer Society
HLDVT 2009 : IEEE International High Level Design Validation and Test Workshop, 2009, San Francisco, CA (USA) 4-6 Nov.
2009
pp.14-19 DOI:10.1109/HLDVT.2009.5340180