

CURRICULUM VITAE

1. Surname: Castoldi
2. Name: Piero
3. Date and place of birth: 30/05/1966, Trento (Italy)
4. Nationality: Italian
5. Civil Status: Married

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6. Education:

<i>Institutions:</i>	University of Parma, Italy
<i>Date:</i> <i>From (months/year)</i> <i>To (months/year)</i>	Nov. 1992 Oct. 1995
<i>Degree:</i>	Ph.D. in Information Technology

<i>Institutions:</i>	University of Bologna, Italy
<i>Date:</i> <i>From (months/year)</i> <i>To (months/year)</i>	Nov. 1985 Feb. 1991
<i>Degree:</i>	“Laurea” in Electronic Engineering

7. Language skills (Mark 1 to 5 for competence, where 5 is the highest):

<i>Language</i>	<i>Level</i>	<i>Passive</i>	<i>Spoken</i>	<i>Written</i>
Italian	<i>Mother Tongue</i>			
English	5	5	5	5
German	3	3	3	3

8. Membership of Professional Bodies:

- IEEE Member since 1993
- Affiliated to “Ordine degli Ingegneri” since 1991

9. Other skills (e.g. computer literacy, etc.):

- Good knowledge of UNIX and Windows system/network administration
- Excellent knowledge of several operating systems (Windows, Linux, Solaris, VMS), of the entire OFFICE suite, web publishing, etc.

10. Present Position:

- Associate Professor in Telecommunications at Scuola Superiore Sant’Anna – Pisa (Italy)
- Director of the CNIT National Photonic Networks Laboratory – Pisa (Italy)

11. Years of professional experience: 15 years

12. Key qualifications:

As a research leader, Professor Castoldi has been responsible of several projects granted to Universities and CNIT by the Ministry of University, the European Community and private bodies. Of particular organizational complexity, he has been WP leader of “Enabling platforms for high-performance computational grids oriented to scalable virtual organizations” funded by Ministry of Education, University and Research (MIUR) for studies in the area of grid computing on optical networks. Total funding of the above projects in the period 2002-2006 is 8 Millions Euros for a manpower of several tens of man-years. He is also been scientific responsible of the Scuola Sant’Anna unit within many European projects. He is single author of an international book on 3g mobile radio systems.

As an Associate Professor at the Faculty of Engineering of Scuola Superiore Sant’Anna and formerly at University of Pisa, Professor Castoldi has gained substantial experience in the management of teaching programs, teaching several different courses in the area of telecommunications. In the same capacity, Professor Castoldi has gained deep knowledge of the legislation regarding the Italian university system complementing his on-the-field expertise on the US system. He has also coordinated international teaching programs such as two editions of the International master on Communication Networks Engineering (in collaboration with the University of Tunis).

As Director of CNIT National Laboratory of Photonic Networks, Professor Castoldi has been responsible for about 1 year and a half of a complex research structure that he manages from the technical and administrative point of view. Activity of CNIT Lab focuses at present on telecommunications networks with emphasis on photonic networks.

As a professional, Professor Castoldi has been consulting to a number of Italian industries (Marconi, Siemens, Agilent and many others). He also was Scientific Responsible of a research contract with Tuscany Region in year 2005.

13. Specific experience in international activities:

<i>Country</i>	<i>Date: from (month/year) to (month/year)</i>	<i>Name and brief description of the project</i>
USA	09/1996-08/1997, 06/1999-09/1999, 06/2000-09/2000	Design of 3 rd generation mobile radio system
USA	01/2002-02/2002	Design of optical networks
Tunisia	02/2003, 02/2004, 03/2005, 04/2006	Instructor of “Multimedia Techniques and Infrastructure” at the University of Tunis

14. Professional experience:

<i>Date: from (month/year) to (month/year)</i>	03/2001 to date
Location	Pisa (Italy)
Company / Organisation	Scuola Superiore Sant’Anna
Position	Associate Professor
Job Description	Research group leader in the area of communication networks (group of 10 people), teacher at the university level, student advisor.

<i>Date: from (month/year) to (month/year)</i>	03/2003 to date
Location	Pisa (Italy)
Company / Organisation	CNIT National Photonic Networks Laboratory
Position	Director
Job Description	Project manager, legal representative of the Laboratory, research manager.

<i>Date: from (month/year) to (month/year)</i>	12/1997 to 02/2001
Location	Parma (Italy)
Company / Organisation	University of Parma
Position	Assistant Professor
Job Description	Research responsible in the area of wireless networks and transmission systems (group of 5 people), teacher at the university level, student advisor.

<i>Date: from (month/year) to (month/year)</i>	09/1996 to 08/1997 and summer 1999, summer 2000
Location	Princeton NJ (USA)
Company / Organisation	Princeton University
Position	Visiting Post-Doc/Visiting Professor
Job Description	Research fellow in the area of wireless networks (especially mobile radio networks and 3rd generation).

15a. Publications and Seminars (selected most recent and significant):

- L. Valcarengi, L. Foschini, F. Paolucci, F. Cugini, P. Castoldi, "Topology Discovery Services for Monitoring the Global Grid", IEEE Comm. Mag., March 2006.
- N. Andriolli, L. Valcarengi, P. Castoldi, "Impact of node switching capabilities on the performance of wavelength routed networks", European Transactions on Telecommunications, Jan/Feb. 2006.
- A. Giorgetti, L. Valcarengi, P. Castoldi, "Single layer vs. Multi-layer Preplanned lightpath restoration", IEEE/OSA Journal of Lightwave Technology, vol. 23, n.10, October 2005, pp. 3206-3218
- F. Cugini, L. Valcarengi, P. Castoldi, and M. Guglielmucci, "Low-cost resilience schemes for the Optical Ethernet," J. Opt. Netw. 4, 829-837 (2005).
- A. Giorgetti, N. Andriolli, L. Valcarengi, P. Castoldi, "Failure-aware idle Protection Capacity Reuse", Globecom 2005 - Symposium on Photonic Technologies for Communications, St. Louis, MO (USA), 28 Nov.-2 Dec 2005.
- A. Giorgetti, L. Valcarengi, P. Castoldi, "Single layer vs. Multi-layer Preplanned lightpath restoration", Journal of Lightwave Technology, special issue on Optical Networks, October 2005.
- Filippo Cugini, Nicola Andriolli, Luca Valcarengi, Piero Castoldi, "Physical Impairment Aware Signalling for Dynamic Lightpath Set Up", European Conference on Optical Communications (ECOC 2005), Glasgow (UK), 25-29 Sept 2005.
- Barbara Martini, Fabio Baroncelli, Piero Castoldi, "A Novel Service Oriented Framework for Automatic Switched Transport Network", 9th IFIP/IEEE International Symposium on Integrated Network Management, Niece (France) 15-19 May, 2005
- F. Cugini, N. Andriolli, A. Giorgetti, L. Valcarengi, P. Castoldi, "Impact of Interface Adaptation Capability Descriptor in GMPLS Multi-Region Networks", 2005 IEEE Workshop on High Performance Switching (HPSR05), May 12-14, 2005, Hong Kong, P. R. China
- P. Castoldi, L. Valcarengi, "On the Advantages of Integrating Service Migration and GMPLS Path Restoration for Grid Network Failure Recovery", 1st International Workshop on Networks for Grid Applications (Gridnets 2004) co-located with Broadnets 2004, San Jose, USA, Oct. 2004.
- P. Castoldi, A. Morelli, P. Vascelli, "The Mythos project: a distance learning experience in the field of lyric music ", Terena Networking Conference (TNC 2003), Zagreb (Croatia), 19-22 May 2003.
- G. Adorni, F. Bergenti, P. Castoldi, A. Morelli, M. Somacher "A Collaborative Framework Supporting Tele-teaching on a Passive Optical Network", Networked Learning Conference 2002, Berlin, May 2002.
- P. Castoldi and H. Kobayashi, "Co-channel Interference Mitigation Detectors for Multirate Transmission in TD-CDMA Systems", Journal on Selected Areas in Communications, February 2002.
- P. Castoldi, "Multiuser detection for the mobile terminals", book edited by the Artech House, June 2002.

15b. References:

Prof. Giancarlo Prati, Scuola Superiore S. Anna & CNIT, Pisa, Italy (giancarlo.prati@cnit.it)
 Prof. Andrea Fumagalli, University of Texas at Dallas, USA (andrea@utdallas.edu)
 Prof. Hisashi Kobayashi, Princeton University, USA (hisashi@ee.princeton.edu)

ANNEXES

Prof. Castoldi has been and is substantially involved as task responsible or project manager in the following projects (most recent and most significant):

- 2005-2008 Research Unit Responsible of the international Italy-Tunisia FIRB project “Software and Communication Platforms for High-Performance Collaborative Grid”, in collaboration with University of Pavia, University of Tunis, Manouba University, Sfax University.
- 2006-2007: 6° Framework Program Integrated Project “NOBEL Phase 2”: a project lead by Telecom Italia Lab and realized in joint cooperation with major european vendor and provider of the telecommunication market for design new technologies and solutions to foster the improvement of broadband telecommunications.
- 2006-2007: 6° Framework Program Network of Excellence “E-photon/ONE+”: a project devoted to spreading excellence on optical networking and related technologies among the partners by organizing virtual departments, joint projects and teaching activities.
- 2003-2005 Project “TeleDoc2”: a tele-teaching project with that has enhanced the data network of TeleDoc project and has enabled the live transmission of the existing courses as well as new courses.
- 2002-2003 5° Framework Program Project “Collaborator”: a project devoted to the development of software interfaces for joint collaborative work among remote operators suitable to be deployed on networks with limited bandwidth and terminal with limited computing capabilities.
- 2002-2005 Project “Enabling platforms for high-performance computational grids oriented to scalable virtual organizations” funded by Ministry of Education, University and Research (MIUR) for studies in the area of grid computing on optical networks.
- 2001-2004 Project MIUR CofinLab “Center of Excellence for Communication Networks Engineering” a joint research/teaching/management project for the settle of a Center of Excellence on optical networking in the town of Pisa.
- 2000-2002. Project “TeleDoc”: a tele-teaching project with the double aim of realizing a network infrastructure and the courses delivered on the network. The project envisions the delivery of 30 courses for Ph.D. students in the area of ICT.
- 2000-2001 Project “Mythos”: a tele-teaching project in the area of lyric music for distance learning of instrument players and orchestra professors/directors.
- May 1998 – May 2001. Project MADESS-II, subproject CIMR (CDMA Interference Mitigation Receiver) funded by CNR, a 3-year project lead by University of Pisa, with the aim of realizing an interference mitigation receiver for CDMA systems.
- 1998-2001. Project “Interactive multimedia access network”, subproject “Interactive Multimedia Services on Passive Optical Networks” funded by Minister of University and CNR, a 3 year project which involves University of Parma, Marconi Communications and CSELT.

Teaching Activity

- In academic year 2005/06 and 2006/07 he is responsible of the teaching initiative “International Master on Communication Networks Engineering”, a complex master initiative offered to a class of talented Tunisian student including an 8-months in-class part and a 4 months stage in companies.
- He has been instructor of the course *Electrical Communications* at the University of Parma (Electrical Engineering program) for 4 years, from academic year 1997/98 to 2000/2001
- He has been instructor of *Digital Signal Processing* at the University of Parma (Electrical Engineering program) for 2 years in academic year 2000/2001 and 2001/2002.
- He has been instructor of the course of *Fundamentals of optical networks* at Scuola Superiore Sant’Anna for 4 years, from academic year 2001/02 to 2004/2005
- In the academic year 2001/2002 he has held the course of *Telecommunication Networks* within the International Master on Software Engineering (IMSE) of Scuola Superiore Sant’Anna.
- In the academic year 2003/04 and 2005/06 he held the course of *Networking* within the International Master on Information Technology (IMIT) of Scuola Superiore Sant’Anna.
- In the year 2003, 2004, 2005 he has held the course of *Multimedia Techniques and Infrastructure* within the "Mediterranean School of Advanced Studies in Media Science” held in Tunis.
- In September 2001, September 2003 and July 2004 he has held, in tele-teaching mode, the course of *Advanced Receivers for CDMA systems* within TeleDoctorate project (first edition), TeleDoctorate UNESCO edition and TeleDoctorate 2, respectively all projects managed by CNIT (Consorzio Nazionale Interuniversitario per le Telecomunicazioni).

Competence gained during professional experience

- 2nd generation and 3rd generation mobile radio system: within this area several research lines has been conducted including the network planning, design of receivers for Base stations and mobile terminals, hand-over procedures etc.
- Broadband telecommunication networks (technologies, system design and services): several service infrastructures have been designed and realized and supervised during the professional activity. He also contributed to the development of collaborative software interfaces for joint collaborative work among remote operators.
- Design and performance analysis of optical networks based on wavelength routing: this activity has been conducted both at theoretical and experimental level, yielding innovative solutions required by industrial partners (e.g. Marconi Communications).
- Reliability of networks: several reliable multi-layer solutions have been studied for access, metro and core networks based on software and hardware solutions.
- Control plane, management plane and grid applications: within this area several architectural studies have been conducted for development of a new Internet generation where service provisioning is separated from transport provisioning. Ongoing activities on grid computing applications also fall within this area: aim is to integrate applications more closely with the control of geographic network.