Curriculum Vitae

PERSONAL INFORMATION

Luigi Vetrano

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WORK EXPERIENCE

01/01/2000–Present

Senior Network Architect and Security Specialist

Siemens A.G → TechnoLabs → Intecs S.p.A. , L'Aquila (Italy)

Referred to as the company expert on computer networking, evaluates and implements emerging communications technologies as appropriate to the mission and priorities, achieving benefit from adoption of new technology, while avoiding technical, security and financial risk.

Participates in the design, planning and implementation of company strategic projects and renovations to ensure that computing and communications infrastructure issues are suitably addressed to meet current and long-term technological goals while avoiding security threats.

Defines networking requirements for new products and take care of security issues that they might expose: analyzes security risks and develop response procedures. Additional duties may include developing and testing software deployment tools, firewalls and intrusion detection systems. evaluate, recommend and implement other security devices as well. This may include installing computer security software, conducting regular security audits, preparing security status reports, educating users on computer security, creating security documentation for users, assisting in disaster recovery and gathering evidence regarding cyber crimes.

Writes project documentation and educational literature for the company and the University.

Conducts classes and seminars for faculty and colleagues on how to utilize the newest networking technologies.

Among the others he strongly contributes to the following projects:

HETU: first attempt in SIEMENS to introduce Packet technologies

HiT-7050 Layer 2 Switch: an enterprise equipment deploying Packet-over-SONET technologies

Radio Networks for COMPEL: introducing the Ethernet Ring Protection mechanism

Radio Networks Deployments for TechnoLabs: Radio communication Network for L'Aquila Municipality

For ANSALDO-STS he contributes to the study and technological choices for the TORINO-PADOVA railway network and for the upgrade of the CHIUSI-FIRENZE trunk.

Designer of the Cyber Security platform for the SMASH project (satellite communications)

Worth to mention the internal preparation of 20 colleagues for the CISCO-CCNA/CCNP certification

Last but not least he teaches at L'Aquila University the following courses:

2001-2003 Computer Graphics

2003-2005 Digital Image Processing

2004 Regional course (POR) on NETWORK SECURITY

2005-2015 Computer Networks

Supervisor of some degree thesis mainly in the network security area

Cited in several degree thesis and in the book Codifica, sintesi e riconoscimento della voce di N. Dal Degan
Owner of 3 patents

01/01/1994–30/12/1999

Architect

ITALTEL S.p.A., Milan (Italy)

In January 1994 he was engaged at the Business Unit Radio Systems in staff to the Central Research

Director. In this position his mission was to follow the ETSI activities for both the GSM Half-Rate and the GSM Enhanced Full-Rate systems. More in detail he was appointed as ETSI rapporteur for the GSM 06.31 and 06.41 recommendations

01/10/1988–30/12/1993

Telecommunications engineering technician

ITALTEL S.I.T Research and Development, Milan (Italy)

Responsible of the *Digital Signal Processing* area of the R&D department. The area, 14 researchers,has the mission to cover all the items in the field of DSP for both audio and video processing applied to the telecommunications. In this period the following goals are achieved:

Real-time implementationof the RPE-LTP CODEC @ 13 Kbit/s for the GSM Full-Rate system

Real-time implementation of a video CODEC @ variable bitrate for the Italian Telecommunication Project of the CNR

Real-time implementation of the VSELPCODEC @5.6 Kbit/s for the GSM Half-Rate

Real-time implementation of a variable bitrate audio codec for RACE-CODIT project

Speech store and retrieval system for the GAV (vocal announcement generator) in use in the UT switching system

Real-time implementation of a Sub-Band video codec @ 10 Mbit/s for VADIS (EUREKA-EU625)

01/01/1985–30/12/1985

Telecommunications engineer

AEG - Ulm (on behalf of ITALTEL), ULM (Germany)

In 1985 he is at the Central Research Department of AEG in Ulm-Germany and then at the SEL (Standard Electric Lorenz) premises in Stuttgard working for the CD-900 Validation System (became after the GSM).

03/11/1983–30/12/1999

Telecommunications engineer

ITALTEL S.I.T. SpA, Milan (Italy)

During the first year at ITALTEL he was at the CSELT premises in Torino where he worked on the ISDN matters (Echo Canceler Burst Mode).

01/03/1981–31/10/1983

Computer systems analyst

Universita' degli Studi di Napoli, Napoli (Italy)

1981: Researcher at the *Università degli Studi di Napoli* for an experiment on speech recognition.

1983: Researcher at CNR (National Research Council) for the realization of an automatic system for "*seismic refraction*" applied to the Vesuvio area.

EDUCATION AND TRAINING

Telecom Engineering Degree

Universita' degli Studi di Napoli, Napoli (Italy)

PERSONAL SKILLS

Mother tongue(s): Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C1

	Shenker Level 50				
French	B1	B2	B1	B1	B1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
Common European Framework of Reference for Languages

Communication skills

good communication skill gained in ETSI and in 10 years of teaching at University

Organisational / managerial skills

leadership (in the past I was head of Digital Signal Processing Labs @ Italtel)

In Etsi I was in charge of the GSM recommendations 06.31 and 06.41 coordinating the working teams.

Job-related skills

during 30 years I have matured skills in some areas achieving the following industrial and technical goals:

Definition of a U-chip for ISDN system

Real-time implementation of an APC codec for speech signals

Simulation of an SBC codec for the experimental DMR system CD900 (channel coding)

Simulator of the RPE-LPT codec for the GSM Full-Rate system

Design and Implementation of an automatic system for speech store and retrieval in use in the UT-GAV

Simulator of the CELP codec for the GSM half-rate system

Sub-band video coding suitable for ATM network

Algorithms for digital signal processing

Forward Error Correction (Reed-Solomon)

Speech Enhancement

Voice Activity Detection

Algorithms for acoustic and electric echo cancelation

Digital audio and video compression

Computer skills

Good command of office suite (word processor, spread sheet, presentation software)

Programming Languages

Web Applications

Security

Driving licence

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ADDITIONAL INFORMATION

Publications

Conferences

1.*R. D'Avella, A. Ricci, L. Vetrano*, "Performance evaluation of the GSM TCH/HS Channel Decoder", European Personal Mobile Communications Conference, Bologna, Novembre 1995.

2.*L. Astemio, L. Vetrano*, "Fixed point implementation of the Half-Rate Speech Codec for the GSM system", ICSPAT-94, Dallas, September 1994.

3.*F. Andreotti, J. Buschmann, V. Maiorano, L. Mori, L. Vetrano*, "A Real-time implementation of an Audiovisual Terminal", ICSPAT, Boston, December1992.

4.*F. Andreotti, E. Angeleri, V. Maiorano, L. Mazzei, L. Vetrano*, "A pause detection algorithmforhigh quality speechcompression", EUSIPCO 92, Brussels,August 1992.

5.*F. Andreotti, L. Vetrano*, "Speech store and retrieval at low bit rate", International Conference on DSP

applications and technology, Berlin, Ottobre 1991.

6.*G. Rosina, M. Sant'Agostino, E. Turco, L. Vetrano,* "Testing and quality enhancement of the GSM full rate voice channel", 2nd European Conference on Speech Communication Technology, Genova, Settembre 1991

7.*F. Andreotti, V. Maiorano, L. Vetrano, F. Zanoni,* "Real time implementation of a high quality CELP codec for digital mobile radio system", International Symposium on Circuits and Systems, Singapore, Giugno 1991

8.*F. Andreotti, V. Maiorano, L. Vetrano,* "A 6.3 Kbit/s CELP codec suitable for GSM Half rate system", IEEE International Conference on Acoustics, Speech and Signal Processing, Toronto, Maggio 1991

9.*E. Angeleri, M. Barsotti, L. Mazzei, L. Vetrano, R. Volpeintesta*, "Vocal pauses in Teaching: Statistical Analysis and Applications" ,International Conference on Spoken Language Processing",Kobe-Japan, Novembre 1990.

10.*L. Busnelli, N. Dal Degan, L. Vetrano*, "Multisensor input for a speech enhancement equipment: System architecture and experimental result", 1st European Conference on Speech Communication Technology, Edinburgh, Settembre 1987.

11.*C. Canosi, L. Vetrano*, "New commands for FUJITSU MB8764 Simulator", AEG Forschungsinstitut, ULM Donau (D), Gennaio 1986.

12.*E. Aldinger, C. Canosi, L. Vetrano*, "FUJITSU program for C.I.R. calculation inside CD900 VS",AEG Forschungsinstitut, ULM Donau (D),Marzo 1986.

13.*M. Proegler, L. Vetrano*,"Simulation programs for Reed Solomon encoding and decoding Algorithms", AEG Forschungsinstitut, ULM Donau (D), Giugno 1986.

14.*L. Mirabile, L.Vetrano*,"Metodo sismico a rifrazione: tecnica delle isocline", IUN - Napoli,Settembre 1983.

15.*M. Longo, F. Palmieri, L. Vetrano*, "Sistema di acquisizione di segnali con computer HP1000", IUN - Napoli, Giugno 1982.

Internal Research journal

1.*L. Vetrano* "Modulazione DELTA", System Design n. 2-Gennaio 1991

2.*E. Angeleri, M. Barsotti, L. Mazzei, L. Vetrano, R. Volpeintesta,*"Pause Vocali nell' attivitá didattica: Analisi Statistica e Applicazioni", System Design n. 2-Gennaio 1991

3.*V. Maiorano, D. Raveglia, L. Vetrano*, "Studio Preliminare di un Convertitore di Codice ADM-PCM", System Design n. 3-Aprile 1991

I hereby authorise the treatment of my personal data, according to D.Lgs n. 196/2003.