

Professional Résumé – **GIOVANNI VANNUCCI**
President, Milvius Research, LLC (technical consultants)

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This résumé is also available on the web, with clickable links, at
<http://milvius.com/gvcv>

Summary

Main Areas of Technical Expertise: radio/wireless communications, geolocation & GPS, RFID, RF/digital/analog system design, patent generation and prosecution.

Summary of Qualifications:

Research background..... 42+ years doing research at Bell Labs, Mitsubishi Labs, Rutgers U., AT&T Labs

Education..... Doctor's degree in Physics (U. of Pisa), PhD & M.S. in E.E. & Comp. Sci. (Columbia U.)

Inventiveness..... 198+ issued patents

Technical Leadership..... Led research teams in mobile location, RFID-based pricing, mobile ID

Professional Association Activity..... member of core team for IEEE Wireless Certification exam

Managerial experience 1 yr. as managing director of Bell Labs Italy

..... 1 yr. as CTO of Securinx inc.

Standards 1½ yrs. as chair of TIA committees; delegate at 3GPP

International experience dual citizen Italy/USA, multilingual, Jpn. co. experience, expat experience

Academic experience Visiting Professor at Rutgers Winlab, U. of Parma, U. of Pisa

Intellectual Property..... Technical advisor at Kaplan Breyer Schwarz & Ottesen, LLP

Experience Details

2015-present	<i>AT&T Labs</i> – Principal Member of Technical Staff We have created the AirGig™ system concept, a revolutionary technology for providing broadband connectivity based on surface-wave propagation of EM fields on overhead AC power lines. This work is covered by a large number of patents.
2008-2016	<i>Kaplan Breyer Schwarz & Ottesen, LLP</i> – Technical Advisor: This law firm specializes in patent prosecution in high-tech fields. I used my technical expertise in support of patent prosecution and interactions with US and foreign patent offices.
2008-2015	<i>Rutgers University WINLAB</i> – Visiting Professor: I have supported the center's activities in the areas of radio propagation studies and RF hardware design through student counseling and interactions with other faculty members.
2008-2018	<i>IEEE-ComSoc</i> – WCET Certification Exam Definition Committee: I was a member of the core team for the Wireless Communications Engineering Technology exam. I was responsible for exam construction. This certification exam provides a valuable and widely recognized credential for people seeking employment in the wireless industry.
2008-2015	<i>InPoint Systems</i> – VP Engineering: I had primary responsibility for the design and development of version 3 (beta) of the company's Roll-Call™ RFID product for inventory tracking.
2011	<i>AT&T – T-Mobile merger</i> – Consultant for Plaintiff States: I was a technical advisor for the Attorneys General of the plaintiff states that joined the US DOJ in this high-profile anti-trust lawsuit.
2006-2012	<i>Design Support Consultants, LLC</i> – Part-time associate: Review of patent portfolios in the area of wireless communications.
2001-2009	<i>Mitsubishi Electric Research Laboratories</i> – Sr. Principal Technical Staff and Consultant: Research in the areas of RFID -based sensors, location techniques (radio and ultrasonic), mobile phone identification , multiple-antenna (MIMO) techniques, ultra-wideband (UWB) systems, backscatter radio.

2006-2007	<i>3GPP</i> – Delegate: I represented Mitsubishi Electric at RAN-WG1 and RAN-WG2 meetings.
2005-2006	<i>Bose Corp.</i> – Part-time consultant: Consulting on intellectual-property generation.
2004-2005	<i>Securinex, inc. (now Blue by ADT)</i> – Chief Technical Officer: As a founding member of this start-up, whose product was an RFID-based wireless home-security system, I was largely responsible for the radio-link design and for coordinating the work of a three-member team leading to the realization of a first prototype.
2000-2001	<i>Lucent Technologies Italia - Bell Laboratories</i> – Managing Director of Bell Labs Italy (BLI): Chartered with creating the first branch of Bell Labs in Italy, I set up a Bell Labs Office in Rome and established a Research Center at the University of Ferrara. I defined research areas for BLI and publicized our initiative with Lucent's customers, Italian universities and other institutions through numerous visits and seminars.
1999-2000	<i>Telecommunications Industry Association (TIA)</i> – Chair of two standard-setting task groups: In support of Lucent's mobile-location work, I joined the TR45.5.2.3 task group (part of TR45.5) as the Lucent representative and, later, I was appointed chairman. During my tenure, the group produced the IS-801 standard (April '99). I was then appointed chairman of the newly-created TR45.1.1.1 task group (part of TR45.1) which produced the IS-817 standard (May 2000).
1991-1996	<i>NCR Corp. - AT&T-Bell Laboratories</i> – Lead scientist for NCR's Wireless Pricing project: I am primarily responsible for the design of the radio subsystem, air interface, protocol, error-control techniques and DSP algorithms of this very successful product from NCR-Japan. Born shortly after AT&T's acquisition of NCR, the project called for a highly-reliable, bi-directional radio transceiver for a fraction of a dollar. I was instrumental in fully achieving the target error-free performance at ultra-low cost. This work led to several patents.
1979-2000	<i>Bell Laboratories (AT&T / Lucent Technologies)</i> – From '96 to '00 I was lead scientist for a Mobile-Location project: I devised the "Assisted GPS" (AGPS) technique and other location techniques now part of Lucent's products. I designed the AGPS prototype and supervised its construction. I devised the main algorithm and supervised its realization. This work led to several patents. (In parallel, I organized a seminar series on wireless topics.) Prior to '96 I did research in satellite and terrestrial microwave communications, fiber and open-air optical communications, portable/mobile telephony, wireless data systems; resulting in numerous publications and patents.
1990 & 1992	<i>University of Parma and University of Pisa</i> – Visiting professor: I taught two summer courses in optical communications & CDMA communications (respectively).

Education & Personal Data

Citizenship:	Dual citizen: Italy by birth and US naturalized in 1990
Language Proficiency:	Italian and English (excellent) - German and Spanish (basic)
Education:	Ph.D. ('79) M.Phil. ('78) in Electrical Engineering – Columbia U., New York MS ('75) in Comp. Science – Columbia U., New York Laurea (Doctor's degree; '73) in Physics – U. of Pisa, Italy – 110/110 Student at Scuola Normale Superiore, Pisa ('69-'71) HS diploma ('69) at Liceo Scientifico A. Righi – Roma, Italy – 60/60
Associations:	IEEE-ComSoc (senior member), AAAS, HKN

Publications – A list of my publications can be found at <http://milvius.com/gvcv/publications>

Patents – A list of my patents can be found at <http://milvius.com/gvcv/patents>