

Alberto Sangiovanni Vincentelli

Academic Positions and Education:

Alberto Sangiovanni Vincentelli holds the Edgar L. and Harold H. Buttner Chair of Electrical Engineering and Computer Sciences at the University of California at Berkeley. He has been on the Faculty of the Department since 1976. He obtained an electrical engineering and computer science degree ("Dottore in Ingegneria") *summa cum laude* from the Politecnico di Milano, Milano, Italy in 1971. In 1980-1981, he spent a year as a Visiting Scientist at the Mathematical Sciences Department of the IBM T.J. Watson Research Center. In 1987, he was Visiting Professor at MIT. He has held a number of visiting professor positions at Italian Universities, including Politecnico di Torino, Università di Roma, La Sapienza, Università di Roma, Tor Vergata, Università di Pavia, Università di Pisa, Scuola di Sant'Anna. He is a member of the Advisory Board of the Lester Center for Innovation of the Haas School of Business and of the Center for Western European Studies and is a member of the Berkeley Roundtable of the International Economy (BRIE). Since July 2019, he has served as Special Advisor to the Dean of Engineering of the University of California, Berkeley, for Entrepreneurship and as Chair of the Academic Advisors of the Berkeley SkyDeck accelerator. He is Honorary Professor at Politecnico di Torino.

He is an author of over 1,000 papers, 19 books and 2 patents in the area of design tools and methodologies, large scale systems, embedded systems, hybrid systems and innovation. He is recognized as one of the founding fathers of EDA and a leader in the field of Cyber Physical Systems design methodology and tools. He has given key notes at the major conferences in EDA (two key note addresses at Design Automation conference for the 40th and 50th anniversary, key note addresses at the International Conference on CAD for the 40th anniversary, International conference on Computer Design, and to all workshops in the area) control theory (twice at Conference on Decision and Control, European Control Conference), testing (key note at the International Test Conference), Integrated Circuit Design (European Solid State Circuit Conference), and Cyber Physical Systems (two key notes at Hybrid System Computation and Control, two key notes at the International Conference on Cyber Physical Systems). He has also given a number of Distinguished Lectures at major Universities such as Stanford, MIT, Columbia, Princeton University, University of Pennsylvania, University of California, Santa Barbara and San Diego, Washington University, British Columbia, Utah, Connecticut, Vanderbilt, College de France, VERIMAG, EPFL, KTH, ETH, Politecnico di Torino, Politecnico di Milano, University of Pisa, University of Pavia, among others. He is often invited to give addresses to companies such as IBM, Intel, UTC, at *ad hoc* meetings. He has graduated over 100 MS and PhD students.

Industrial Experience:

He has co-founded several enterprises in US and Europe. In particular, he was a co-founder of the two leading companies in the area of Electronic Design Automation: Cadence and Synopsys both quoted on NASDAQ.

He was the founder and Scientific Director of the Project on Advanced Research on Architectures and Design of Electronic Systems (PARADES), a European Group of Economic Interest located in Rome supported by Cadence, Magneti-Marelli and ST Microelectronics. He was a co-founder of the Advanced Laboratory for Embedded Systems (ALES) that acquired PARADES. In 2013, ALES was acquired by United Technologies Corporation.

Board Participation:

- *Public Companies:* He has been a member of the Board of Directors of Cadence Design Systems since 1991, a member of its Governance and Nominating Committee and of its Strategy Committee, and of KPIT Technologies, a high technology Indian Company, with over 300 Million USD revenues, where he is a member of the Quality Committee, Governance Committee and of the Strategy Committee. He is a member of the Board of Directors of Expert System and member of the oversight committee, an Italian company quoted on AIM and member of the Board of Directors of Cy4Gate, also quoted on Aim.
- *Privately Held Companies:* He was a member of the Board of Directors of Sonics, a privately held company in Silicon Valley, where he was the Chairman of the Governance and Nominating Committee and of the Strategy Committee. He is on the Board of Cogisen, Iseo and Exein, and the Chairman of the Board of Expert Systems, USA. He is Chairman of the Board of Quantum Motion, a British company in Oxford and of Phoelex, a British Company in Cambridge. He was the Chairman of the Board of UltraSoC, a British company in Cambridge. He was on the Board of Directors of Gradient Technology, Comsilica (Chairman of the Board), and UPEK (member of Compensation Committee and Chairman of the Governance Committee), all Silicon Valley Companies, of Accent (a European company, Chairman of Compensation Committee and member of the Strategy Committee and of the Audit Committee) and of Value Partners (an Italian Company).

- *Advisory Boards:* He had been a member of the ST microelectronics Advisory Board for 10 years. He was a member of the HP Strategic Technology Advisory Board (2005-2007), a member of the Science and Technology Advisory Board of General Motors (2003-2013), and is a member of the Technology Advisory Council, System and Control Engineering, of United Technologies Corporation (2005-2015), of Elementum, 2015-present, of the Scientific Council of the Tronchetti Provera foundation. He is the Chairman of the International Advisory Board of MIND (Milano Innovation District).

Consulting Activities:

He consulted for many companies including

- *US companies:* Bell Labs, DEC, IBM, Intel, TI, United Technologies Corporation, Lutron.
- *European companies:* COMAU, Magneti Marelli, Pirelli, BMW, Daimler-Chrysler, ST, Camozzi Group and Thomson; since 2010, he has been the Senior Advisor to the President and CEO of L'Elettronica, an Italian defense company.
- *Japanese Companies:* Fujitsu, Kawasaki Steel, Sony, and Hitachi.
- *Australian Companies:* LendLease, strategy consultant.

Venture Capital and Private Equity Activities:

- He consulted for Greylock Ventures, Sofinnova and for Singapore Vertex Investment Venture Capital funds.
- He is a member of the Advisory Board of Walden International, Innogest Venture Capital fund and Xseed.
- He is a member of the Investment Committee of the VC fund, Atlante Ventures, by Banca Intesa/San Paolo, and of Fondo Next of Finlombarda, and Technology Champion of Indaco Ventures.
- From January 2013 to January 2016, he had been the President of the Strategic Committee of the Italian Strategic Fund (Fondo Strategico Italiano).
- He is member of the advisory board of the French PE group Jolt Technology.

Public Authorities:

- He was an advisor to the Singapore Government for microelectronics and new ventures and is a member.
- He has been the Director of the Singapore-Berkeley Entrepreneurship Bridge since September 2019-
- He is a member of the High-Level Group, of the Steering Committee, of the Governing Board and of the Public Authorities Board of the EU Artemis Joint Technology Initiative.
- From 2003 to 2016, he had been member of the Scientific Council of the Italian National Science Foundation (CNR).
- From February 2010 to February 2020, he had been a member of the Executive Committee of the Italian Institute of Technology, where he is a member of the Scientific Committee.
- From July 2012 to July 2015, he had been the Chairperson of the Comitato Nazionale Garanti per la Ricerca, a seven-person committee established by the Ministry of Education, Scientific Research and University of the Italian Government to oversee the evaluation processes for research grants in Italy.
- Since 2019, he has been a member of Singapore's International Advisory Panel on Energy (Energy IAP).

Honors

- *Teaching:* In 1981, he received the Distinguished Teaching Award of the University of California. He received the worldwide 1995 Leon Kirchmayer Graduate Teaching Award of the IEEE (a Technical Field award for "inspirational teaching of graduate students"). In 2002, he was the recipient of the Aristotle Award of the Semiconductor Research Corporation for "outstanding teaching in its broadest sense, emphasizing student advising and teaching during the research project".
- *Research:* He received numerous research awards including the Guillemin-Cauer Award (1982-1983), the Darlington Award (1987-1988) of the IEEE for the best paper bridging theory and applications, and two awards for the best paper published in the IEEE Transactions on CAS and CAD, five best paper awards and one best presentation awards at the Design Automation Conference, two best paper awards at the International Conference on CyberPhysical Systems, other best paper awards at the Real-Time Systems Symposium, and the VLSI Conference.

Major Honors

- In 2001, he was given the Kaufman Award of the Electronic Design Automation Council for "pioneering contributions to EDA".
- In 2008, he was awarded the IEEE/RSE Wolfson James Clerk Maxwell Medal "for groundbreaking contributions that have had an exceptional impact on the development of electronics and electrical engineering".

or related fields” with the following citation: “For pioneering innovation and leadership in electronic design automation that have enabled the design of modern electronics systems and their industrial implementation”

- In 2009, he received the first ACM/IEEE A. Richard Newton Technical Impact Award in Electronic Design Automation to honor persons for an outstanding technical contribution within the scope of electronic design automation.
- In 2012, he received the Lifetime Achievement Award from EDAA.
- He has been a Fellow of the IEEE since 1982.
- He has been a Member of the National Academy of Engineering, the highest honor bestowed upon a US engineer, since 1998.
- In 2014, he became a Fellow of ACM.
- In 2017, he was given the first IEEE Technical Committee on Cyber-Physical Systems (TC-CPS), Technical Achievement Award for pioneering contributions and leadership in cyber-physical systems and design automation.
- In 2018, he was awarded the 2019 International Symposium on Physical Design (ISPD) lifetime achievement award, intended for individuals who have made outstanding contributions to the field of physical design automation over multiple decades

Honorary Degrees:

- In 2009, he was awarded an Honorary Doctorate by the combined EE and CS departments of the University of Aalborg in Denmark.
- In 2012, he was given an Honorary Doctorate from KTH in Sweden.
- In 2020, he was awarded an Honorary Doctorate from the AGH University of Science and Technology, Krakow, Poland.