

Curriculum Vitae of Andrea J. Goldsmith

Contact Information

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Education

Ph.D.	Electrical Engineering, University of California at Berkeley	1994
M.S.	Electrical Engineering, University of California at Berkeley	1991
B.S.	Engineering Mathematics, University of California at Berkeley	1986

Leadership Highlights:

- Joining Stony Brook as its 7th President August 4th.
- As Princeton's Engineering Dean, leading the largest and fastest expansion of faculty and students in the school's history. Increased faculty size by 33%, from 150 faculty in Fall 2020 to 200 faculty in Fall 2024. Also increased sponsored research by 25% in the same period. Implemented successful best practices for diverse faculty hiring; Significantly exceeded annual fundraising goals for new programs and infrastructure; secured funding for a Bioengineering Institute, a Center on Blockchain Technology and Societal Impact, as well as several buildings in our new engineering neighborhood; Partnering with the NJ Governor's office to foster innovation and entrepreneurship throughout the state.
- Selected for President Biden's Committee of Advisers on Science and Technology (PCAST). Co-Chairing the PCAST Working Group on the Vibrancy of Fundamental Research. Co-Chaired the PCAST Exploratory Group on US Competitiveness in Technology and Innovation. Member of the Semiconductor Working Group.
- As Founding Chair of the IEEE Board of Directors Committee on Diversity and Inclusion, drove institutional change around diversity, inclusion, equity, and professional ethics through policy changes, best practices, metrics collection, and cultural change. Inducted into the IEEE TAB Hall of Honor for advancing DEI throughout the IEEE.
- Founder of two successful high-tech companies, Quantenna (QTNA) and Plume WiFi.
- Consultant to President Michael Crow on building an Institute of Technology within and across Arizona State University.
- Longest serving member of the Stanford Budget Group (10 years under 2 Provosts), which provided recommendations on all budget matters under the Provost authority.
- Chosen by the Stanford Board of Trustees as the sole faculty member to serve on its Committee on Finance.
- Elected by the Stanford Faculty Senate to serve on the Advisory Committee for Faculty Appointments and Promotions. Reviewed and provided feedback to the President and Provost on faculty appointments, promotions, and hiring policies across all seven schools.
- Elected by the Stanford Faculty Senate to serve as Senate Chair in the immediate aftermath of the 2008 financial crisis. Senate topics covered that year included the fallout of the financial crisis, the interplay between interdisciplinary institutes and disciplinary schools and departments, challenges in higher education, the Stanford Honor Code, and bringing the ROTC program back to Stanford after a 40-year hiatus.
- Served on the Stanford commissions on graduate and on undergraduate education, which proposed sweeping reforms for curricular and extracurricular education.

Employment

Stony Brook University, President	08/25-Present
Intel (INTC) Board of Directors:	09/21-Present
Audit Committee; Corporate Governance & Nominating Committee	
Medtronic (MDT) Board of Directors:	03/19-Present
Science and Technology Committee (Chair); Quality Committee.	
Crown Castle Inc. (CCI) Board of Directors:	10/17-Present
Compensation and Human Capital Committee	
Princeton University, Dean of Engineering and Applied Science and Arthur LeGrand Doty Professor of Electrical and Computer Engineering	09/20 – 08/25
Stanford University, Stephen Harris Professor of Engineering Emerita as of 09/20	10/12 – 08/20
Plume Wi-Fi, Founder, CTO, Board of Directors	08/10 – 08/14
Stanford University, Professor of Electrical Engineering (EE)	05/07 – 08/20
Quantenna Communications (QTNA), Founder, CTO, Board of Directors	09/05 – 07/09
Stanford University, Associate Professor of Electrical Engineering	09/02 – 04/07
Stanford University, Assistant Professor of Electrical Engineering	01/99 – 08/02
Memorylink Corporation, Chief Scientist	05/98 – 05/02
Caltech, Assistant Professor of Electrical Engineering	09/94 – 12/98
University of California at Berkeley, Research Assistant	08/89 – 08/94
Laney College, Instructor	08/90 - 12/90
AT&T Bell Laboratories, Intern and Consultant	06/91 – 08/92
MAXIM Technologies, Systems Engineer	06/86 – 09/90

Princeton Leadership Roles

- Dean of Engineering and Applied Science
- President's Cabinet
- Board of Trustees (Ex-Officio)
- Executive Committee: Princeton Institute for International and Regional Studies
- Co-Director: Center on Decentralization of Power through Blockchain Technology
- Co-Director: NextG Industrial Partnership Program

Stanford Leadership and Service Roles

- University Budget Group (2010 – 2020)
- Advisory Committee on Faculty Promotions and Appointments (2017- 2019)
- Stanford Leadership Academy (2017-2018)
- Faculty Senate (2017-2020, 2011-2015, 2006-2010, 2001-2005), Chair (2009-2010)
- Planning and Policy Board: Member (2016-2017, 2009-2013), Chair (2009-2010)
- Committee on Research (2015-2017)
- Co-Chair: EE/CS Rising Stars Workshop for Aspiring Women Faculty (2016-2017)
- Provost Search Committee (2016)

- Provost Task Force on Women and Leadership (2014 – 2016)
- Neuroscience Faculty Search Committee (2014-2015)
- Ad Hoc Committee on Women and Leadership (2013-2014)
- Founding Chair: EE Committee on Student Life (2012-2017)
- University Cabinet (2009-2010)
- Senate Steering Committee (2004-2005, 2009-2010)
- EE Faculty Search Committee (2009-2010)
- Commission on Undergraduate Education (2011-2012)
- Commission on Graduate Education (2005-2006)
- EE/CS Faculty Search Committee (2003-2004)
- Vice Provost and Dean of Research Search Committee (2003)
- Pre-major Advisor (2001-2002, 2004-2005, 2010-2013, 2015-2016)
- EE Undergraduate Curriculum Committee (2000-2003), Chair (2003-2006)
- EE Academic Affairs Committee (1999-2004)

Professional Leadership and Service Roles

- Member, President's Council of Advisers on Science and Technology (PCAST), 2021-Present. Co-Chair: Working Group on Vibrancy of Fundamental Research. Co-Chair: Exploratory Group on US Competitiveness in Technology and Innovation. Member: Working Group on Semiconductor Competitiveness.
- Marconi Society Board of Directors, 2015-Present. Chair: Marconi Prize Committee, 2020-Present.
- Founding Chair: IEEE Board of Directors Committee on Diversity and Inclusion, 2022-2023
- Member: IEEE Dresselhaus Medal Committee, 2020-2022
- Chair: National Academy of Engineering Awards Committee, 2021. Member, 2019-2022
- Chair: National Academy of Engineering Peer Committee on Electronics, Communication, and Information Systems Engineering, 2020. Member, 2018-2020.
- Chair: IEEE Board of Directors Ad-Hoc Committee on Diversity, Inclusion, and Professional Ethics (2019-2020)
- Presidential Adviser: Arizona State University Institute of Technology Design (2018-2020)
- Chair: IEEE Technical Activities Committee on Diversity and Inclusion (2017-2020)
- Member: IEEE Strategic Planning Committee (2017-2019)
- Member: National Science Foundation Advisory Committee for the Directorate on Computer and Information Science and Engineering (2016-2020)
- Chair: IEEE Technical Activities Committee on Diversity and Inclusion (2017-2018)
- Member: IEEE Strategic Planning Committee (2017-2018)
- Member: National Science Foundation Advisory Committee for the Directorate on Computer and Information Science and Engineering (2016-2018)
- Member: Marconi Society Board of Directors (2015-present)
- Chair: Women in Technology Leadership Roundtable Metrics Working Group (2016-Present), Roundtable Member (2015-present)
- Chair: IEEE Technical Activities Ad Hoc Committee on Women and URM (2015-2017)
- Chair: IEEE Bell Medal Committee (2014-2017), Member (2011-2013)

- Chair: IEEE Communications Society Emerging Technology Committee (2012-2014)
- Member: IEEE Communications Society Strategic Planning Committee (2012-2014)
- Member: Marconi Society Award Jury (2009-2011)
- President: IEEE Information Theory Society (2009), Officer (2007-2011)
- Jury Chair: BBVA Foundation Frontiers of Knowledge Award in Information and Communication Technology (2009-2012)
- Chair: IEEE Information Theory Society Claude E. Shannon Award Committee (2009)
- Chair: IEEE Information Theory Society Awards Committee (2008)
- Member: IEEE Technical Activities Board (2008-2009)
- Founder and Chair: IEEE Information Theory Society Student Committee (2005-2008)
- Board of Governors: IEEE Information Theory Society (2002-2007)
- Board of Governors: IEEE Communications Society (2005-2008)
- Committee Member: National Research Council Committee on Technology Investment for the Dept. of Homeland Security (2009-2012)
- Committee Member: National Research Council Committee on the Trends in Wireless Technology and Policy (2003-2006)
- Committee Member: National Research Council Committee on the Future of Untethered Communication (1996-1997)

Multi-University Research Leadership Roles

- Lead Stanford Principal Investigator: NSF Center for Science of Information. \$50M program across 11 universities and 44 faculty (2008-2018)
- Lead Principal Investigator: Air Force Office of Sponsored Research, “Reduced Dimension Wireless Networks and Radio Design: Enabling new Radio Architecture and Network Controllers via Compressed Sensing.” \$2.25M program across 3 universities and 3 faculty (2012-2017)
- Lead Principal Investigator: NSF, “Information Acquisition, State Estimation, and Control in Cyber Physical Systems.” \$1M program across 3 universities and 3 PIs (2013-2016)
- Lead Principal Investigator: Defense Threat Reduction Agency, “Fundamental Performance Limits in Hybrid Networks under WMD Attack.” \$1.2M across 2 universities and 2 faculty (2008-2013)
- Lead Principal Investigator: DARPA, “Information Theory of Mobile Ad-Hoc Networks.” \$6M program across 4 universities and 12 faculty (2006-2011)
- Lead Stanford Principal Investigator: Army Research Office, “Dynamic Ad-Hoc Wireless Networks.” \$6M program across 7 universities and 12 faculty (2006-2010)

Technical Advisory Boards

- Encharge Inc. Technical Advisory Board: 2021-Present
- Cohere Technical Advisory Board Chair: 2016-2021
- Quantenna (QTNA) Technical Advisory Board Chair: 2016-2020
- Interdigital (IDCC) Technical Advisory Board Chair: 2015-2017 (Member 2010-2017)
- Sequans (SQNS) Technical Advisory Board Member: 2006-2020
- Accenture (ACN) Technical Advisory Board Member: 2014-2016

- Aviat Networks (AWN) Technical Advisory Board Member: 2010-2012

Awards and Honors

- IEEE Mildred Dresselhaus Medal “For contributions to and leadership in wireless communications theory and practice” – 2025.
- IEEE James H. Mulligan Education Medal “For educating, mentoring, and inspiring generations of students, and for authoring pioneering textbooks in advanced digital communications” – 2024
- Royal Swedish Academy of Engineering Sciences – 2024
- National Inventors Hall of Fame – 2024
- Wireless Hall of Fame – 2024
- National Academy of Inventors - 2024
- Silicon Valley Hall of Fame – 2024
- D.Sc. Honoris Causa, University of Malaga – 2024
- D.Sc. Honoris Causa, Tel Aviv University – 2024
- IEEE Technical Activities Board Hall of Honor for DEI Leadership - 2023
- Royal Academy of Engineering – 2022
- ACM Sigmobile Outstanding Contribution Award – 2022
- Marconi Prize for advancing information and communication technologies – 2020
- IEEE Leon K. Kirchmayer Graduate Teaching Award – 2020
- Qualcomm Faculty Award – 2019
- IEEE Eric E. Sumner Technical Field Award in Communications Technology – 2018
- D.Sc. Honoris Causa, University of Edinburgh – 2018
- IEEE Communication Theory Technical Committee Distinguished Service Award – 2019
- IEEE Information Theory Society Aaron D. Wyner Distinguished Service Award – 2018
- ACM Athena Lecturer Award – 2018
- IEEE iCon Award for Conference Excellence – 2018
- American Academy of Arts and Sciences – 2017
- National Academy of Engineering – 2017
- IEEE Communications Society Women in Communications Engineering Mentoring Award – 2017
- Thomson-Reuters/Clarivate Highly Cited Researcher (top 1%) – 2014, 2015, 2016, 2017
- IEEE Communications Society Edwin H. Armstrong Achievement Award “For sustained and fundamental contributions to wireless communications.” – 2014
- IEEE Communications Society Women in Communications Engineering Achievement Award – 2014
- Technical Achievement Award in Communication Theory: IEEE Communications Society – 2013
- Stephen Harris Endowed Chair in Stanford’s School of Engineering – 2012
- Interdigital Innovation Award – 2012
- Silicon Valley Business Journal Women of Influence Award – 2010.
- IEEE Information Theory Society Distinguished Lecturer – 2010-2011
- Technical Achievement Award in Wireless Communications: IEEE Communications

Society – 2009

- Tsinghua Distinguished Chair Professorship – 2009-2011
- IEEE Communications Society Distinguished Lecturer – 2007-2008
- Stanford Postdoc Mentoring Award – 2008
- UCSD Shannon Memorial Lecture – 2007
- Stanford Fellow – 2005
- IEEE Fellow – 2005
- Stanford School of Engineering Brecht Faculty Development Scholar – 2003
- National Academy of Engineering Gilbreth Lectureship – 2002
- Alfred P. Sloan Fellowship – 2001
- Stanford Terman Fellowship – 1999
- Okawa Foundation Award – 1999
- The Office of Naval Research Young Investigator Award 1999
- National Semiconductor Faculty Development Award – 1996, 1997
- The National Science Foundation CAREER Development Award – 1995
- IBM Fellow – 1992-93
- David Griep Memorial Prize for Excellence in Academic Achievement – 1991

Paper Awards

- IEEE Communications Society Best Tutorial Paper Award (Five-Year Window) – 2013
- IEEE Joint Information Theory Society and Communications Society Best Paper Award (Three-Year Window) – 2004
- IEEE Global Communications Conference, Communication Theory Symposium Best Paper Award – 2013
- Power and Energy Society General Meeting Best Paper Award – 2013
- Asia-Pacific Conference on Signal and Information Processing Best Paper Award – 2012
- IEEE Global Communications Conference Best Paper Award – 2009
- IEEE International Communications Conference, Wireless Communications Symposium Best Paper Award – 2008
- IEEE International Symposium on Information Theory Best Student Paper Award – 2007

Plenary, Keynote, and Distinguished Lectures

- Plenary Speaker: IEEE Vehicular Technology Conference, October 2024
- William Gould Dow Distinguished Lecturer: University of Michigan, March 2024
- Keynote Speaker: Synopsys Engineering Innovation Forum, October 2023
- Plenary Speaker: IEEE International Conference on Acoustics, Speech and Signal Processing, June 2023.
- Keynote Speaker, ACM Mobisys Conference, June 2022
- Keynote Speaker, IEEE Global Telecommunications Conference, December 2021
- Keynote Speaker, Marconi Society Symposium on the Decade of Digital Inclusion, October 2021
- Lilian Gilbreth Lecture, Purdue University, September 2019
- Distinguished Medical and Electrical Engineering Seminar, Caltech, May 2019
- Gene Brice Colloquium, Department of Electrical and Computer Engineering, Rice

University, April 2019

- Distinguished Lecture Series in Information Engineering, Cambridge University, Cambridge, UK, January 2019.
- Mercer Distinguished Lecture Series, Department of Electrical, Computer, and Systems Engineering, Rensselaer Polytechnic, December 2018
- Athena Lecturer, Mobicom 2018, Delhi, India, October 2018
- IEEE 5G World Forum, Santa Clara, CA, September 2018
- Keynote Speaker, National Academies of Science, Engineering and Medicine Colloquium on 5th Generation Wireless Communications, Washington DC, August 2018
- Distinguished Speaker Series, Department of Electrical Engineering and Computer Science, Northwestern University, January 2018
- Visions for Future Communications Summit, Lisbon, Portugal, Oct. 2017
- Iran Workshop on Communications and Information Theory, Tehran, Iran, May 2017
- IEEE International Workshop on Emerging Technologies for 5G Wireless Cellular Networks, Washington DC, Dec. 2016
- IEEE International Symposium on Wireless Communication Systems, Poznan, Poland, Sep. 2016
- Chinese University of Hong Kong, Shenzhen, China, Aug. 2016
- Technion University Vincent Meyer Colloquium, Haifa, Israel, Jun. 2016
- University of Maryland Advanced Networks Colloquium, College Park, MD, Mar. 2016
- MIT Shannon-Boole Lecture, Cambridge, MA, Feb. 2016
- ACM Symposium on Mobile Ad Hoc Networking, Hangzhou, China, Jun. 2015
- IEEE Personal and Indoor Mobile Radio Conference, Washington DC, Sep. 2014
- IEEE International Symposium on Information Theory, Waikiki, HI, Jul. 2014.
- Qualcomm Technology Forum, San Diego, CA Jun. 2014
- European Wireless Conference, Barcelona, Spain, May 2014
- International Zurich Seminar on Communications, Zurich, Switzerland, Feb. 2014
- IEEE International Conference on Communications in China, Xi'an, China, Aug. 2013
- International Conference on Signal Processing and Communications, Kunming, China, Aug. 2013
- IEEE Vehicular Technology Conference, Dresden, Germany, Jun. 2013
- IEEE International Workshop on Heterogeneous and Small Cell Networks, Anaheim, CA, Dec. 2012
- Electrical Engineering Distinguished Lecture Series, University of California at Berkeley, Berkeley, CA, Nov. 2012
- IEEE Workshop on Convergence among Heterogeneous Wireless Systems in Future Internet, Ottawa, Canada, Jun. 2012
- IEEE Wireless Communications and Networking Conference, Paris, France, Mar. 2012
- IEEE Global Communications Conference, Miami, FL, Dec. 2010
- IEEE Communications Society Distinguished Lecture Tour in Latin America, Sweden, and Canada, 2009
- IEEE Wireless Communications and Networking Conference, Budapest, Hungary, Apr. 2009
- IEEE International Conference on Computers, Communications, and Networks, San Francisco, CA, Aug. 2009
- IEEE International Symposium on Wireless Pervasive Computing, Santorini, Greece,

May 2008

- Conference on Government Microcircuit Applications and Critical Technology, Las Vegas, NV, Mar. 2008
- American Control Conference, Manhattan, NY, Jul. 2007
- IEEE Conference on Information Sciences and Systems, Princeton, NJ, Mar. 2006.
- Workshop on Signal Processing for Wireless Communications, King's College, London, May 2006
- International Workshop on Wireless and Ad Hoc Networks, New York, NY, Jun. 2006.
- Electrical Engineering Distinguished Lecture Series, University of California at Berkeley, Berkeley, CA, Feb. 2005
- Lillian Gilbreth Lecture, Annual National Academy of Engineering Meeting, Washington. DC, Oct. 2002
- National Academy of Engineering Symposium on Frontiers of Engineering, Irvine, CA, Mar. 2002
- Caltech Ernest J. Watson Lecture Series, Pasadena, CA Oct. 1996

Editorial Leadership Roles

- Founding Editor-in-Chief, *IEEE Journal on Selected Areas in Information Theory*, 2018-2021
- Steering Committee: *IEEE Transactions on Wireless Communications*, 2010 – 2013
- Associate Editor: *IEEE Transactions on Information Theory*, 2007 – 2009
- Editorial Board: *NoW Journal on Foundations and Trends in Communications and Information Theory*, 2006 – Present
- Editorial Board: *NoW Journal on Foundations and Trends in Networks*, 2006 – Present
- Guest Editor: Special issue of *IEEE Journal on Selected Areas in Communications*, 2007
- Guest Editor-in-Chief: Special issue of *IEEE Wireless Communications Magazine*, 2006
- Guest Editor-in-Chief: Special issue of *IEEE Wireless Communications Magazine*, 2002
- Guest Editor-in-Chief: Special issue of *IEEE Wireless Communications Magazine*, 1998
- Editor: *IEEE Transactions on Communications*, 1995 – 2001
- Editor: *IEEE Wireless Communications Magazine*, 1995 – 2002

Technical Meetings - Leadership Roles

- General Chair, IEEE Communication Theory Workshop, 2022.
- General Chair: IEEE Wireless Communications and Networking Conference, 2017. (*recipient: 2018 IEEE Award for Excellence selected from 1600 IEEE Conferences*)
- General Chair: IEEE Information Theory Workshop, 2010.
- General Chair: Joint Workshop on Coding and Communications, 2008.
- General Chair: IEEE Communication Theory Symposium, 2000.
- Technical Program Committee Chair: IEEE Information Theory Symposium 2007.
- Technical Program Committee Chair: IEEE Communication Theory Workshop 1999.

Technical Meetings – Program Committee Member

- IEEE Information Theory Workshop, 2015.

- IEEE International Symposium on Information Theory, 2015.
- IEEE International Symposium on Information Theory, 2013.
- IEEE Communications Theory Workshop, 2012.
- IEEE International Symposium on Information Theory, 2012.
- IEEE International Symposium on Information Theory, 2010.
- IEEE Global Communications Conference, 2004.
- IEEE International Conference on Communications, 2002.
- IEEE Wireless Personal and Mobile Communications Conference, 2002.
- IEEE International Symposium on Signals and Systems, 2000.
- IEEE Global Communications Conference, 1999.
- IEEE International Communications Conference, 1999.
- IEEE Wireless Communications and Networking Conference, 1999.
- IEEE Global Communications Conference, 1996.
- IEEE Global Communications Conference, 1994.

Doctoral Student and Postdoc Summary:

Dr. Goldsmith has supervised the Ph.D. theses of 26 doctoral students. She has supervised 22 postdoctoral scholars with 2 under her current supervision.

Research Funding Summary:

Dr. Goldsmith has served as PI or co-PI on government research grants totaling more than seventy million dollars. Her research has been funded by the National Science Foundation (NSF), Defense Advanced Research Projects Agency (DARPA), the Office of Naval Research (ONR), the Air Force Office of Sponsored Research (AFOSR), the Army Research Labs (ARL), and the Defense Threat Reduction Agency (DTRA). She served as the lead Stanford PI on a fifty million dollar NSF Center that spanned 11 universities (44 faculty) and she has served as lead PI on five other multi-university research programs. She has also obtained more than two million dollars of research support from industry, including funding from Agilent, Bosch, Cable Labs, Hitachi, Huawei, Intel, LG Electronics, National Semiconductor, NTT, Samsung, and Toyota.

Publication and Patent Summary:

Dr. Goldsmith has over 190 journal papers published, two of which have won best paper awards. She has published 360 peer-reviewed conference papers, six of which have won best paper awards. She is the author of four textbooks, one of which has been translated into Chinese, Japanese, and Russian. She has thirty-eight issued patents. Her publications have been cited over 82,000 times in Google Scholar with an h-index of 100. Links to her publications and patents can be found at URL: <http://scholar.google.com/citations?user=cPmMoXoAAAAJ&hl=en&oi=ao>