

# JAY P. KESAN

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## SCIENTIFIC & LEGAL WORK EXPERIENCE:

<b>IBM T.J. Watson Research Center</b> , Yorktown Heights, NY Research Staff Scientist	1989-1993
<b>Massachusetts Institute of Technology</b> , Cambridge, MA (concurrent with IBM) Visiting Scientist, National Magnet Laboratory	1990-1993
<b>Columbia University</b> , New York, NY (concurrent with IBM) Thesis Supervisor of Doctoral Students	1989-1993
<b>Technical and/or Legal Expert &amp; Consultant</b> Served as Technical Expert and/or Patent Law Expert in numerous patent litigations; Technical expert in microelectronics, microwave/millimeter wave circuits and devices, optoelectronics, wireless communications, nanotechnology, and software; Appointed by U.S. federal judges as Special Master in patent litigations; Served on the Board of Directors/Advisors of numerous technology start-ups	1998-Present
<b>Pennie &amp; Edmonds LLP</b> , Washington, DC Associate Attorney (1996-97); Patent Agent & Law Clerk (1993-96)	1993-1997
<b>Law Clerk to the Hon. Patrick E. Higginbotham</b> , Dallas, TX U.S. Circuit Judge, U.S. Court of Appeals for the Fifth Circuit	1997-1998
<b>United States Patent &amp; Trademark Office (USPTO)</b> , Alexandria, VA Thomas A. Edison Scholar Expert/Adviser	Oct. 2012-Feb. 2013 July 2013-June 2014
<b>DiMuro Ginsberg PC</b> , Alexandria, VA Of Counsel	Aug. 2014-Present

## ACADEMIC WORK EXPERIENCE:

<b>University of Illinois at Urbana-Champaign</b> Professor & Director, Program in Intellectual Property & Technology Law H. Ross & Helen Workman Research Scholar	2004-Present 2010-Present LOA (2019)
Research Professor, Coordinated Science Laboratory	2003-Present
Affiliate Professor, Department of Electrical & Computer Engineering	1999-Present
Professor, College of Business	2008-2018
Professor, Agricultural & Consumer Economics	2004-Present
Program Leader, Biofuel Law & Regulation, Energy Biosciences Institute (EBI)	2007-2017
Professor & Group Leader, Business, Economics and Law of Genomic Biology (BioBEL) research theme, Institute of Genomic Biology (IGB)	2006-2015
Mildred Van Voorhis Jones Faculty Scholar	2007-2009
Faculty Fellow, Office of the Vice President for Technology & Economic Development	2009-2011
Associate Professor, College of Law and the Institute of Government	

& Public Affairs (IGPA) 2002-2004  
 Assistant Professor, College of Law 1998-2002  
 Assistant Professor, Institute of Government & Public Affairs (IGPA) 1999-2002  
Subjects Taught: Civil Procedure; Property; Introduction to Intellectual Property; Patent Law;  
 Managing Intellectual Property; Intellectual Property Transactions; Privacy and Security Law; Patent Litigation;  
 Digital Forensics; Law of Renewable Energy; Law & Regulation of Cyberspace; Law & Economics; Theoretical  
 Foundations of Intellectual Property; Legal Issues in Technology Entrepreneurship  
Areas of Interest: Patent Law; Intellectual Property; Cyber Security and Privacy; Internet Law & Regulation;  
 Renewable Energy/Biofuel Regulation; Empirical & Analytical Methods in the Law; Law and Computation;  
 Law and Economics; Agricultural Biotechnology Law

**National Law University (NLU), Delhi, India**

Visiting Professor  
 Subject Taught: Intellectual Property and Competition Law and Policy Aug. 2015, 2016,  
 2017 & 2018

**Florida State University School of Law**

Visiting Professor of Law Fall 2010  
 Subject Taught: Introduction to Intellectual Property

**Seattle University School of Law**

Visiting Professor of Law Fall 2009  
 Subject Taught: Patent Litigation

**University of Illinois, USA – Oxford University, UK – University of Victoria, BC**

Co-Director, Summer Study Abroad Program in International & Comparative  
 Intellectual Property Summer 2002-2007  
 Subjects Taught: Int'l & Comparative Patent Law; IP Issues in Emerging Technologies

**DePaul University College of Law**

**Jerold Hosier Distinguished Visiting Chair in Intellectual Property** Spring 2004

**Georgetown University Law Center**

Visiting Assistant Professor Fall 2001  
 Subjects Taught: Patent Law; Theoretical Foundations of Intellectual Property

**University of Illinois at Urbana-Champaign**

Resident Associate, Center for Advanced Study (CAS) 2000-2001  
 Co-organizer of year-long seminar series on “The University’s Changing Role: Defining  
 Values for Research & Technology”

**University of Tokyo, Japan**

JSPS Invited Fellow and Visiting Associate Professor Dec. 2000-Jan. 2001

**University of Washington, Seattle**

Fellow, CASRIP Intellectual Property Summer Institute July 2000  
 Invited Faculty July 2001-04

**Institute of Intellectual Property (IIP), Tokyo, Japan**

Invited Foreign Research Fellow Nov.-Dec. 2003

## EDUCATION:

### **Georgetown University Law Center**, Washington, DC

**J.D.**, December 1996, *summa cum laude* (2 conferred out of 623 graduates)

GPA: 11.59/12.0

Honors: Charles A. Keigwin Award for Academic Excellence  
Order of the Coif; Dean's List All Years  
Best Paper Awards in Criminal Justice, Constitutional Law and  
Commercial Law

Law Review: *The Georgetown Law Journal*, Associate Editor

### **Hebrew University, Faculty of Law**, Jerusalem, Israel

Tulane/Cardozo Uri & Caroline Bauer Program, August 1996

Studied religious, international and comparative law

GPA: 3.89/4.0

### **University of Texas at Austin**, Austin, TX

**Ph.D.** in Electrical & Computer Engineering, 1989

**M.S.** in Electrical & Computer Engineering, 1986

GPA: 3.86/4.0

Honors: Commendation from the Dean of the Graduate School for  
Outstanding Doctoral Dissertation

### **National Institute of Technology, Karnataka (NITK)**

Surathkal, India

**B.S.** in Electrical Engineering, Highest Honors, 1984

## HONORS AND AWARDS:

- Senior Commentator, Edison Fellowship Program, Center for Protection of Intellectual Property (CPIP), George Mason University, Arlington, VA, 2014-16, 2016-2019
- Microsoft Faculty Research Award, 2015 (\$40,000), 2016 (\$60,000), 2017 (\$60,000)
- Named by Intellectual Asset Management (IAM) Magazine in their list of "Top 12 IP Personalities of 2012" (only two academics in this list), 2013
- Thomas A. Edison Scholar, United States Patent & Trademark Office (USPTO), 2012-2013
- Honorable Mention Award (\$1,000), Research Competition on Cyberdeterrence conducted by the National Research Council (NRC) for work on "Thinking Through Active Defense in Cyberspace," 2011
- Best Paper Award for Contributions to Foundations of Electronic Governance at the 4<sup>th</sup> International Conference on Theory and Practice of Electronic Governance (ICEGOV), Beijing, China, Oct. 25-28, 2010
- Microsoft Faculty Research Award for work on technology standards, 2010 (\$40,000)
- Best Paper Award, for paper on an Empirical Examination of Open Standards Development (with R. Shah), 41<sup>st</sup> Hawaii International Conference on System Sciences (HICSS), Jan. 9, 2008, Manoa, Hawaii
- Best Paper Award, for paper on an Empirical Study of Open Standards (with R. Shah) published in the Proceedings of the 8<sup>th</sup> Annual International Conference on Digital Government Research, May 21-23, 2007, Philadelphia, PA
- 2006 IBM Faculty Award (unrestricted award--\$25,000)
- Appointed Special Master by federal judges in patent litigation cases
- Invited Fellow, University of Washington, Seattle, Center for Advanced Study and Research in Intellectual Property (CASRIP), Summer 2000; Invited Instructor, July 2001-July 2004
- Invited Foreign Research Fellow, Institute of Intellectual Property (IIP), Tokyo, Japan, Nov.-Dec. 2003
- METI/JSPS Invited Fellow and Visiting Professor, University of Tokyo, Japan, Dec. 2000 - Jan. 2001
- Resident Associate, Center for Advanced Study (CAS), University of Illinois, 2000-2001

- Recipient of the 1995-96 H. Thomas Austern National Legal Writing Competition Award (\$1,000)
- Holder of 10 U.S. patents and several other patents world-wide
- Recipient of 2 IBM Invention Achievement Awards, 1990-1992
- Invited Editor of a special issue of the *Journal of Vacuum Science and Technology B* (published by the American Vacuum Society), Mar./Apr. 1992
- Microelectronics and Computer Technology Corporation (MCC) Award for Graduate Research Excellence, 1989
- Recipient of a Joint Services Electronics Program Assistantship for graduate study, 1985-1989
- Best Student Paper Award at the 1988 Electronic Materials Conference, Boulder, CO

## RESEARCH GRANTS:

- University of Illinois Campus Research Board Grant, "Patents As Incomplete Contracts" \$13,000 (1999)
- University of Illinois Campus Research Board Scholar's Travel Grant (2000)
- The Net Institute, "Internet Regulation: The Political Economy of ICANN and the Shaping of New Regulatory Regimes for the Internet," (with A. Gallo), \$15,000 (2003)
- National Science Foundation (NSF) Grant, "Understanding 'Code': How Information Technologies Regulate Behavior" \$300,000 (2000-2004)
- U.S. Department of Agriculture, Illinois-Missouri Biotechnology Alliance, "The Role and Function of the Patent System in Industrialized Agriculture: Innovation and Rent-sharing in Corn and Soybean Supply Chains" \$210,000 (2001-2004)
- Coleman Foundation Grant, "Development of Online Course on Legal Issues in Technology Entrepreneurship" \$14,000 (2001-2002)
- U.S. Department of Agriculture, Illinois-Missouri Biotechnology Alliance, Supplementary Research Grant, "Improving Efficiency and Minimizing Adverse Selection in Seed Production Contracts," \$120,000 (2003-2005)
- U.S. Department of Agriculture, Soybean Disease Biotechnology Center, "Understanding the Role of Intellectual Property in Soybean Innovation," \$150,000 (2003-2006)
- U.S. Department of Agriculture, Soybean Disease Biotechnology Center, "Empirical Studies of Patent Litigation and Ag-Biotech Innovation," \$100,000 (2005-2008)
- National Science Foundation (NSF) Grant, "Governing with Information Technologies," \$395,155 (2004-2007) Supplemental Funding, \$76,190 (2007-2008)
- U.S. Department of Agriculture, Soybean Disease Biotechnology Center, "Plant Innovation and Intellectual Property Regimes: Time for a Change?," with B. Endres, \$60,314 (2007-2008)
- U.S. Department of Agriculture, Soybean Disease Biotechnology Center, "Evolving Biodiesel Markets: Opportunities and Challenges for Small/Medium-sized Biodiesel Firms" with R. Agarwal, \$40,000 (2007-2008)
- Federal Judicial Center, The Research Arm of the Federal Courts, "Empirical Study of the Role of Special Masters in Patent Litigation, \$20,000 (2007-2008)
- Energy Biosciences Institute, "Biofuel Law and Regulation," with B. Endres, \$510,000/year (2008-2011)
- National Science Foundation (NSF) Grant, "REGNET-Information Management and Compliance Assistance for Patent Laws and Regulations," \$200,000 (2008-2011)
- National Science Foundation (NSF) Grant, "Innovation Personnel and their Ecosystem: Career Choices and Trajectories of Scientists--Industry or Academia and Basic or Applied?" with R. Agarwal, \$33,000 (2010-2013)
- Microsoft Research Grant, unrestricted grant, \$57,000 (2011), \$80,000 (2012), \$40,000 (2015)
- National Academy of Sciences, Board of Science, Technology and Economic Policy (STEP), \$7,500 (2012)
- Energy Biosciences Institute, "Biofuel Law and Regulation," \$175,000/year (2012-2014)
- National Science Foundation (NSF) Grant, "Program in Digital Forensics," with R. Campbell, M. Bashir, D. Nicol and W. Sanders, \$548,720 (2012-2016)
- National Science Foundation (NSF) Grant, "Illinois Cyber Security Scholar Program (ICSSP)," with R. Campbell, M. Bashir, D. Nicol and W. Sanders, \$5,378,577 (2013-2017)
- Microsoft Research Grant, unrestricted grant, \$40,000 (2015); \$60,000 (2016); \$60,000 (2017)
- Department of Homeland Security (DHS), Critical Infrastructure Resilience Institute (CIRI), "Risk Assessment and Cyberinsurance," with S. Shetty, and D. Nicol, \$300,000 (2015-2016); \$350,000 (2016-2017);

\$350,000 (2017-2018)

- Society of Actuaries (SOA), Centers of Actuarial Excellence (CAE) Grant, “Actuarial Innovation and Technology on Cyber Risk,” with R. Feng, D. Linders, and W. Chong, \$110,000 (2019-2021).
- MAPFRE Foundation, “Cyber Insurance—Challenges and Opportunities for Market Growth,” with R. Feng, D. Linders and W. Chong, €14,726 (2019).

### **SCIENTIFIC PUBLICATIONS** (see attached list of publications, books, book chapters & patents):

- Published over 60 papers in several peer-reviewed journals, 6 authored or edited books, 18 book chapters and over 50 law review articles
- Scientific contributions featured in *The Wall Street Journal*, *Electronic Engineering Times*, *Lasers and Optronics*, and other technical publications
- Presented numerous invited talks and contributed talks at international conferences and universities world-wide
- Holder of 17 U.S. patents and numerous other foreign patents

### **GOVERNMENT TESTIMONY:**

“Toward a Better Informed Patent Office,” Presented testimony and participated twice in panels at the FTC & DOJ Hearings on the Implications of Competition and Patent Law and Policy, <http://www.ftc.gov/opp/intellect/index.htm>, April 10, 2002, & October 25, 2002, Washington, D.C.

Testified at the Second Public Hearing conducted by the U.S. Patent and Trademark Office (USPTO) in conjunction with the Small Business Association (SBA) on “Study of International Patent Protection for Small Businesses,” at the University of Southern California, Los Angeles, CA, Nov. 1, 2011.

Testified about the Renewable Fuel Standard (RFS2) Program to the House Subcommittee on Energy and the Environment, the U.S. House of Representatives Committee on Science, Space, and Technology, and the hearing was on “Conflicts and Unintended Consequences of Motor Fuel Standards,” Nov. 2, 2011.

### **BAR AND COURT ADMISSIONS:**

U.S. Patent & Trademark Office (1993 - Reg. No. 37,488); Virginia (1997); District of Columbia (1998); Fourth Circuit; Fifth Circuit; Federal Circuit; U.S. Dist. Court, Eastern Dist. of VA; Sup. Ct. of VA

### **SCHOLARLY & PROFESSIONAL ACTIVITIES:**

- Regular Radio Commentator for “Legal Issues in the News,” WILL-AM-FM Radio, <http://will.illinois.edu/legalissuesinthenews>, 2010-Present
- Senior Commentator, Edison Fellowship Program, Center for Protection of Intellectual Property (CPIP), George Mason University, Arlington, VA, 2014-16; 2016-2019
- Faculty Editor-in-Chief, Journal of Law, Technology and Policy (JLTP), University of Illinois, <http://www.jltp.illinois.edu>, 2000-Present
- National Science Foundation (NSF) Panel Review Member, 2000-Present
- Advisory Group Member, Bipartisan Policy Center (BPC), Options for Reforming the Renewable Fuel Standard (2014), attended meetings and worked on final report issued in Dec. 2014
- Workshop Co-Organizer, Workshop on Computation, Mathematics, and the Law, University of San Diego, Mar. 22, 2014, San Diego, CA
- Conference Organizer, “Traditional Knowledge and Folklore in Uganda, Jun. 28, 2013, Kampala, Uganda
- Kauffman Certified Facilitator and Program Director, Kauffman Foundation FastTrac TechVenture

- Entrepreneurship Education Program, Certificate in Entrepreneurship and Management (CEM), 2011-2014
- Symposium Co-organizer, Biofuel Law and Regulation Conference, Annual Conference held each year in April since 2009-2014, University of Illinois
- Conference Co-organizer (with AIPLA), Conference on Small Claims Patent Court, University of Illinois Illini Center, Feb. 28, 2013, Chicago, IL.
- Symposium Co-organizer, 30<sup>th</sup> Anniversary Celebration of the U.S. Sup. Ct. decision in *Diamond v. Chakrabarty*, Sept. 22, 2010, University of Illinois
- Member, International Editorial Board, *I/S: A Journal of Law and Policy for the Information Society*, 2007-Present
- Symposium Co-organizer, "The Promise of the Prairie: University-Industry Interactions," University of Illinois, Union League Club of Chicago, Apr. 11-12, 2008, Chicago, IL
- Symposium Co-organizer, "Intellectual Property Protection in Asia: Moving Beyond Producers and Consumers," Part of year-long program, "Science and Technology in the Pacific (STIP)," Center for Advanced Study, University of Illinois, Mar. 7-8, 2008, Champaign, IL
- Program Committee Member, ICEGOV2008: 2nd International Conference on Theory and Practice of Electronic Governance.
- Program Committee Member, International Conference on Digital Government Research, 2006-Present; Member, Digital Government Society of North America (DGSNA)
- External Panel Review Member for Research Proposals on Social and Economic Dimensions of Biofuels, Energy Biosciences Institute (EBI), UC-Berkeley, UIUC and LBNL, 2007
- Group Leader, Business, Economics and Law of Genomic Biology (BioBEL) research theme, Institute of Genomic Biology (IGB)
- National Human Genome Research Initiative (NHGRI), National Institutes of Health (NIH), Intellectual Property Panel Review Member, 2005
- Symposium Co-organizer, "Law in the Age of Networks: Implications of Network Science for Legal Analysis," University of Illinois, Mar. 10, 2006, Champaign, Illinois
- Symposium Organizer, "Seeds of Change: Intellectual Property Protection for Agricultural Biotechnology," University of Illinois, April 8-10, 2004, Champaign, Illinois.
- Symposium Co-organizer, University of Illinois Law Review Symposium on "Intellectual Property Challenges in the Next Century," April 2000
- Co-organizer, Center for Advanced Study (CAS), University of Illinois Seminar Series, "The University's Changing Role: Defining Values for Research & Technology," 2000-01
- Co-taught, Capstone Undergraduate Course, University of Illinois, Colloquium in South, Southeast and Southwest Asian Studies, "Basmati, Software and Pharmaceuticals: Trade, Technology and Intellectual Property in South Asia," Spring 2000
- Supervised law students enrolled in the Transactional Law Clinic at the University of Illinois and working on patent prosecution matters, 1998-Present
- Special Master, Appointed by U.S. federal judges in patent litigations
- Consultant, U.S. Department of Commerce, Technology Commercialization and Intellectual Property, 1999-2002
- Consultant, U.S. Civilian Research & Development Foundation (CRDF), Technology Commercialization and Intellectual Property, 1999-2002
- Lecturer, Patent Bar-Bri, Patent Bar Examination Preparation Course, 1999-Present
- Member, Litigation Committee & Member, IP Strike Force, American Association of University Professors (AAUP), 2000-Present
- Giles S. Rich American Inn of Court, Pupil-Student (1995-97)
- Referee for scientific publications in peer-reviewed scientific journals
- Blog at Talk Standards, <http://www.talkstandards.com>

## **SERVICE ACTIVITIES:**

- University of Illinois College of Law, Served on: Career Services Committee, Graduate/International Committee, Placement & Clerkships Committee, Student Diversity Committee, Technology Committee (served as Chair for

- several years), Admissions Committee, International Programs & Studies Committee, Advancement Committee, and Student Scholarships Committee, Curriculum Committee (Chair), Technology/Online Courses Committee, Faculty Retreat Committee
- Faculty Adviser, Asian American Law Students Association, University of Illinois College of Law, 1998-Present
  - Member, Five Year Review Committee for Director, University Laboratory High School, Spring-Summer 2014
  - Member, Executive Committee, Certificate on Entrepreneurship and Management (CEM) for Life Scientists, University of Illinois, 2008-2014; Program Director, 2011-2014
  - Member, Executive Committee, Institute of Genomic Biology (IGB), University of Illinois, 2008-2015
  - Member, Institute of Genomic Biology (IGB) Executive Director Search Committee, University of Illinois, 2011-2012
  - Faculty Fellow, Office of the Vice President for Technology & Economic Development, University of Illinois System, 2009-2011
  - Member, University-wide Revenue Generation Committee, Chair, Sub-Committee on Intellectual, Commercialization and Entrepreneurship and drafted Section of Report devoted to commercialization, Spring 2010
  - Member, Steering Committee, Information Trust Institute (ITI), University of Illinois, 2008-2010
  - Member, University of Illinois System-Wide Committee on Intellectual Property, 2003-2010
  - Member, University of Illinois College of Law Dean Search Committee, 2001-2002
  - Member, Provost Committee for Development of the Office of Technology Management (OTM) Business Plan, University of Illinois, 2000-2001 (business plan presented, approved and implemented)
  - Member, Provost Committee on Campus IP Policy, 2001 (formulated and wrote first draft of IP policy for the university, with special emphasis on online education issues)
  - Member, University of Illinois Faculty Senate, Statutes and Senate Procedures Committee, 2000-2001
  - Member, University of Illinois Faculty Senate, Information Technology Committee, 2001-2002
  - Member, Board of Advisors, iTEC (Illinois Technology Entrepreneur Center), University of Illinois, 2000-2004
  - Member, Board of Advisors, OTM (Office of Technology Management), University of Illinois, 2000-2004
  - Conduct “Outlining” and “Exam-Taking” Workshops for law students, University of Illinois College of Law, 1998-2000
  - College of Law Senator, University of Illinois Faculty Senate, 1999-2001