# JOÃO P. HESPANHA

## Education

**Ph.D.,** Electrical Engineering, Yale Univ., New Haven, CT 1998
Ph.D. Adviser: Prof. A. Stephen Morse
Dissertation Title: *Logic-Based Switching Algorithms in Control*

**Licenciatura,** Electrical and Computer Engineering, 1991
Instituto Superior Técnico, Lisbon, Portugal

## Teaching Experience

**Professor** 2006–
Univ. of California, Dept. of Electrical and Computer Engineering, Santa Barbara, USA.

**Associate Professor** 2002–2006
Univ. of California, Dept. of Electrical and Computer Engineering, Santa Barbara, USA

**Assistant Professor** 1999–2001
Univ. of Southern California, Dept. of Electrical Engineering, Los Angeles, USA

## Selected University Positions

**Department Chair** 2013–2017
Dept. of Electrical and Computer Engineering, Univ. of California, Santa Barbara, USA

**Director** 2011–2013
Center for Control, Dynamical-Systems, and Computation (CCDC), Univ. of California, Santa Barbara, USA

**Vice Chair & Graduate Advisor** 2007–2013
Dept. of Electrical and Computer Engineering, Univ. of California, Santa Barbara, USA

**Executive Committee Chair** 2004–2006
College of Engineering, Univ. of California, Santa Barbara, USA

## Awards and Recognitions

13,529 *citations in the ISI Web of Science* and 34,850 *citations in Google Schoolar*, as of Jan. 2018.

2018-2020 *Elected member of the IEEE Control Systems Society (CSS) Board of Governors (BoG).*

2016 *Int. Federation of Automatic Control Fellow Award* with the citation "For contributions to the stability theory of switched and hybrid systems and its application to the analysis and design of networked control systems."

2016 *Int. Conference on Cyber Physical Systems (ICCPS) Best Paper Award* for the paper "SMT-based observer design for cyber-physical systems under sensor attacks"

2016 *Power & Energy Society 2012 General Meeting selection for presentation at a Best Conference Paper session* for the paper "Distributed Monitoring of Wide-Area Oscillations in the Presence of GPS Spoofing Attacks"

2016 *Appointed member of the IEEE Control Systems Society (CSS) Board of Governors (BoG).*

2014 *Keynote Speaker* at the 2014 IEEE Int. Conf. on Control and Automation (IEEE ICCA), Taichung, Taiwan.

2014 *Plenary Speaker* at the 1st Multi-symposium on Control Systems (MSCS2014), Tokyo, Japan.

2013 *Plenary Speaker* at the 4th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NECSYS'13).

2012 *Keynote Speaker* at the 3rd International Workshop on Wireless Networking and Control for Unmanned Autonomous Vehicles (WiAUV'12).

2011 *Plenary Speaker* at the XIV Workshop on Information Processing and Control (RPIC2011), Oro Verde, Argentina.

2010 *Semi-plenary Speaker* at the 49th IEEE Conference on Decision and Control (CDC'2010).

2010 *Keynote Speaker* at the 52th Turkish National Symposium on Automatic Control (TOK'2010).

2009 *Ruberti Young Researcher Prize* with the citation "For fundamental contributions to adaptive control and to the theory of switched and hybrid systems."

2009 *Semi-plenary Speaker* at the Chinese Control and Decision Conference (CCDC), Guilin.

2009-2011 *Elected member of the IEEE Control Systems Society (CSS) Board of Governors (BoG).*

2008 *IEEE Fellow* with the citation "for contributions to stability techniques for switched and hybrid systems."

2008 *Appointed member of the IEEE Control Systems Society (CSS) Board of Governors (BoG).*

2007-2013 *IEEE Distinguished Lecturer.*

2006 *George S. Axelby Outstanding Paper Award* for the paper "Uniform stability of switched linear systems: extensions of LaSalle's Invariance Principle." *IEEE Trans. on Automat. Contr.*, 49(4):470–482, Apr. 2004.

2005 *Best Paper Award at the 2nd Int. Conf. on Intelligent Sensing and Inf. Proc.* for the paper "Estimation from relative measurements: Error bounds from electrical analogy," with (P. Barooah), Jan. 2005.

2002-2004 *Automatica Theory/Methodology Best Paper Prize* for the paper "J. P. Hespanha and A. S. Morse. Switching between stabilizing controllers. *Automatica*, 38(11), Nov. 2002."

2002 *Plenary Speaker* at the 5th Portuguese Conference on Automatic Control (Controlo 2002), Univ. of Aveiro, September 5, 2002.

2001 *National Science Foundation (NSF) Faculty Early Career Development (CAREER) award.* The CAREER award is NSF's most prestigious honor for junior faculty members.

1999 (Fall) *USC's Faculty Honor Roll.* The faculty honor roll recognizes faculty that obtained exceptional scores in teaching evaluations.

1999 *Yale University's Henry Prentiss Becton Graduate Prize* for exceptional achievement in research in Engineering and Applied Science for the PhD thesis *Logic-Based Switching Algorithms in Control.* PhD Thesis, Yale Univ., New Haven, CT, 1998.

## Organization of Workshops and Conferences

Co-chair of the 3rd IFAC Workshop on Distributed Estimation and Control in Networked Systems (NECSYS'12), Sep. 2012 (with F. Bullo).

Chair of the Ninth Int. Workshop on Hybrid Systems: Computation and Control (HSCC'06), Mar 2006.

Co-organizer of the biannual "Southern California Nonlinear Control Workshop Series," San Diego/Los Angeles/Santa Barbara, June 2001–present (with M. Krstic, R. Murray, C. Panagiotis, and A. Teel).

Organizer and program chair of the Conference "Touch in Virtual Environments," Los Angeles, California, Feb. 2001 (with M. McLaughlin and G. Sukhatme).

Organizer and lecturer at the mini-course on "System Theory on the Eve of the 21st Century" for Arrábida Courses Summer Univ., Arrábida, Portugal, June 1999 (with A. S. Morse).

## Other Professional Activities

Chair of the IEEE Control Systems Society Awards Committee, 2016–present.

Vice Chair of the Int. Federation of Automatic Control (IFAC) Technical Committee on Networked Systems, 2009–2011 and 2012–2014.

Member of the IFAC Technical Committee 1.3 on Discrete Event and Hybrid Systems, 2011-2014.

Member of the IEEE Control Systems Society Technical Committee on Computational Aspects of Control Systems Design (TC-CACSD), 2011.

Associate editor of the IEEE Transactions on Automatic Control, 2004–2007.

Participant in the UNESCO's Encyclopedia of Life Support Systems (EOLSS) as an article-level writer for Article 6.43.28.7. "Stabilization through Hybrid Control", 2000–04.

## Publications

Author of over 400 papers published in peer-reviewed conferences and journals. A full list of publications is available online at `http://www.ece.ucsb.edu/~hespanha/published.html`

## Invited Lectures

AeroVironment, CA; Boston Univ., MA; California Institute of Technology, Pasadena; Concordia Univ., Montreal, Canada; Georgia Tech, Atlanta; Grenoble Univ., France; Harvard Univ., Boston; Honeywell Technology Center, Minneapolis, MN; Institute for Mathematics and its Application, Minneapolis, MN; Instituto Superior Técnico, Lisbon, Portugal; Kyoto Univ., Japan; Lund Univ., Sweden; Massachusetts Institute of Technology, Boston; Naval Postgraduate School, Monterey, CA; Rutgers Univ., NJ; Stanford Univ., Palo Alto, CA; Space and Naval Warfare Systems Center, San Diego, CA; Stockholm Institute of Technology, Sweden; US Air Force Research Lab, Wright-Patterson Air Force base, Dayton, OH; US Army Research Laboratory, Adelphi, Maryland; United States Academy, West point, New York; United Technologies Research Center (UTRC), Hartford, CT; Univ. of British Colombia, Vancouver, Canada; Univ. of California, Berkeley; Univ. of California, Los Angeles; Univ. of California, Riverside; Univ. of California, San Diego; Univ. of Illinois, Urbana-Champaign, IL; Univ. of Michigan, Ann Arbor; Univ. of Minnesota, Minneapolis; Univ. of Notre Dame, South Bend,IN; Univ. of Pennsylvania, Philadelphia; Univ. of Southern California, Los Angeles; Univ. of Stuttgart, Germany; Univ. of Texas, Dallas; Univ. of Washington, Seattle; Yale Univ., New Haven, CT.