

Chancellor Emerita Distinguished Professor of Electrical and Computer Engineering

University of California, Davis

September 2017

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# Linda P.B. Katehi

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#### **DEGREES**

- Ph.D., Electrical Engineering, University of California, Los Angeles, 1984
- M.S., Electrical Engineering, University of California, Los Angeles, 1981
- Diploma in Mechanical and Electrical Engineering, National Technical University of Athens, Greece, 1977

# PROFESSIONAL EXPERIENCE

- August 10, 2016 present: Chancellor Emerita and Distinguished Professor
- August 17, 2009 August 9, 2016: Chancellor, University of California, Davis, Davis, CA
- August 17, 2009 present: Professor of Electrical and Computer Engineering
- April 1, 2006 August 16, 2009: Provost and Vice Chancellor for Academic Affairs, The University of Illinois, Urbana-Champaign, IL
- April 1, 2006 August 16, 2009: Professor of Electrical and Computer Engineering, The University of Illinois, Urbana-Champaign, IL
- January 1, 2002 March 31, 2006: John A. Edwardson Dean of Engineering and Professor of Electrical and Computer Engineering, Purdue University, West Lafayette, IN

- September 1, 1999 December 31, 2002: Associate Dean for Academic Affairs, The University of Michigan, Ann Arbor, MI
- May 1, 1998 August 31, 1999: Associate Dean for Graduate Education, The University of Michigan, Ann Arbor, MI
- September 1, 1995 April 30, 1998: Member of the College of Engineering Executive Committee, The University of Michigan, Ann Arbor, MI
- September 1, 1994 September 1, 1995: College of Engineering Associate Director of Graduate Program, The University of Michigan, Ann Arbor, MI
- 1994 2002: Professor of Electrical Engineering and Computer Science, The University of Michigan, Ann Arbor, MI
- 1989 1994: Associate Professor of Electrical Engineering and Computer Science, The University of Michigan, Ann Arbor, MI
- 1984 1989: Assistant Professor of Electrical Engineering, The University of Michigan, Ann Arbor, MI
- 1979 1984: Graduate Student Research Assistant, University of California, Los Angeles
- 1978 1979: Research Engineer, Department of Defense, Naval Research Lab, GETEN, Athens Greece
- > 1977 1978: Lecturer, National Technical University of Athens Greece

# ADMINISTRATIVE ASSIGNMENTS

#### **UNIVERSITY OF CALIFORNIA, DAVIS; 2009-2016**

As chief executive officer, Chancellor Katehi oversees all aspects of the university's teaching, research and public service mission, including the UC Davis Health System and its acute-care teaching hospital in Sacramento, one of the nation's leading medical schools, a new school of nursing and a multispecialty physician group that serves 33 counties and six million residents.

For more than 100 years, UC Davis has engaged in teaching, research and public service that matter to California and transform the world. Located close to the state capital, UC Davis has more than 33,000 students, 2,500 faculty, 22,000 staff, an annual research budget of nearly \$750 million, and 13 specialized research centers, in addition to its comprehensive health system. The university is consistently rated among the best in the nation and offers interdisciplinary graduate study and more than 100 undergraduate majors in four colleges — Agricultural and Environmental Sciences, Biological Sciences, Engineering, and Letters and Science. It also houses six professional schools — Education, Law, Management, Medicine, Veterinary Medicine and the Betty Irene Moore School of Nursing.

The University has an annual budget of \$4.3 billion and in the fall of 2013 it successfully completed its first comprehensive fundraising campaign a year ahead of originally scheduled, raising \$1.13 billion from 110,000 individual donors for student scholarships, programs, facilities and other academic support. The success of the university's first-ever comprehensive Campaign for UC Davis has been vital to the campus' continuing progress in the face of declining state investments in higher education, and plans for the next, even more ambitious campaign, began to take shape soon after the first campaign was completed.

UC Davis is consistently rated among the best universities in the nation and has been ranked among the Top Ten public universities by *US News & World Report* for each of the past four years. In 2012, Sierra Magazine, published by the Sierra Club, also declared UC Davis the nation's "Coolest School" for its pioneering work in sustainability and climate change.

Despite being appointed during the worst economic downturn since the Great Depression, Chancellor Katehi has continued to move the university forward, advancing a number of crucial initiatives that have enhanced UC Davis' reputation for excellence.

In March 2013, after months of study and consultation with campus and regional stakeholders, the university began implementing its 2020 Initiative to strategically add up to 5,000 new students by the end of the decade, along with corresponding increases in graduate students, faculty, staff and facilities. The 2020 plan is allowing UC Davis to achieve greater financial stability and has increased the campus' national and international diversity, so all of its students are better equipped to compete in the 21st Century global economy.

A few months later, in June 2013, after a similarly collaborative process, Chancellor Katehi established the UC Davis World Food Center to take better advantage of UC Davis' status as the world's leading university for agricultural research and scholarship. Under the leadership of Katehi and Founding Director Roger Beachy, an internationally known food scientist, the Center is tackling some of the most critical issues facing our world today, including how to feed and nourish a growing planet in an environmentally friendly way, and the nexus between food and human health. Another important initiative has been creation of an innovation hub to enhance the university's ability to ensure that society benefits from discoveries and cutting-edge work done by UC Davis faculty, students and staff.

While presiding over a major reorganization of the university's Office of Research, Chancellor Katehi also established the Interdisciplinary Frontiers Program, which includes a sub-program in the sciences and engineering, known as RISE, and another for arts and humanities.

These provide faculty seed money of grants ranging from \$100,000 to \$1 million dollars over three years, to help establish projects that can compete for major funding from government, private industry, philanthropic foundations and other sources.

UC Davis is already in the top tier of universities when it comes to securing

federal and other research dollars, and it is one of the few UC campuses whose research funding continues to increase, with the total now approaching \$750 million.

Other Office of Research innovations include creation of a new position, associate vice chancellor for Technology and Corporate Relations, with a staff of six dedicated to begin a New Venture Catalyst program. Its mission is to work closely with faculty innovators and others on campus to spin out new commercial ventures stemming from UC Davis faculty research.

Under Chancellor Katehi's leadership, UC Davis has also created two other key centers on campus – the Child Family Institute for Innovation and Entrepreneurship and the Energy Efficiency Center – that are at the forefront of teaching, research, and practice in cross-disciplinary entrepreneurship.

# THE UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN; 2006-2009

As Provost and Vice Chancellor for Academic Affairs, she was the chief academic and budgetary officer for the campus. She oversaw all academic and financial programs, policies and priorities that had been designed to ensure a memorable educational experience for students and sustain an environment that encourages and supports academic excellence. All of the deans and directors of academic units reported to the Provost. Since its founding in 1867, the University of Illinois at Urbana-Champaign has been committed to excellence in research, teaching, and public engagement. Over 29,000 undergraduate students are enrolled in ten undergraduate divisions, which together offer some 4,000 courses in more than 150 fields of study. The divisions are the College of Agricultural, Consumer and Environmental Sciences; College of Applied Life Studies; College of Business; College of Communications; College of Education; College of Engineering; College of Fine and Applied Arts; College of Liberal Arts and Sciences; School of Industrial and Labor Relations, and Institute of Aviation. Graduate students are enrolled in 15 divisions including the College of Medicine, the College of Veterinary Medicine, the School of Social Work, the Graduate School of Library and Information Science and the College of Law that collectively with the other divisions offer more than 50 fields of studies. The campus has a budget of \$1.5B

with over \$400M in research expenditures. The University of Illinois at Urbana-Champaign is embarking on a \$1.5B capital campaign which is expected to be completed by 2011.

#### **PURDUE UNIVERSITY**; 2002-2006

As the Dean of Purdue's College of Engineering from January 2002 until April 2006, Professor Katehi was the College's primary academic and administrative officer. The College of Engineering included twelve major degree areas with over 6,500 undergraduate students, more than 2,300 graduate students, 345 faculty members, and over 400 staff. Professor Katehi was responsible for the development of an aggressive strategic plan that moved Purdue Engineering to the next level of excellence and made it one of the top engineering colleges in the country. As part of that plan, Purdue's engineering faculty has been growing to reach a total of 395 faculty members by 2007, resulting to a 30% total increase in eight interdisciplinary signature areas. These signature areas were developed to focus Purdue Engineering on its strengths as it expanded into many new directions. From 2002 to 2006, the research activity in the College of Engineering experienced annual growth of 15%; research funding in 2006 exceeded \$100M/year and is expected to double by 2007. In parallel to the faculty growth, Engineering embarked on a \$500M capital campaign as part of the \$1.5B Purdue Capital Campaign. The engineering portion of this campaign aimed at increasing space by 60% through a number of new buildings, including a \$57M nanotechnology center, a \$48M engineering center, a \$25M Chemical Engineering addition, a \$20M Biomedical Engineering building, and a \$13M structures lab, all of them to be completed by spring 2007.

# THE UNIVERSITY OF MICHIGAN; 1994-2002

# Associate Dean for Academic Affairs, September 1999- December 2001

As the Associate Dean for Academic Affairs she was responsible for the 11 Departments and 3 Academic Programs in the College of Engineering. Specific responsibilities included College and Department budgets, space allocation, allocation of faculty positions, facilitation and approval of faculty hiring, start-up funds. She was in charge of the agenda of the College Executive Committee and responsible for initiating faculty promotions and tenure processes. Other

responsibilities included assisting the Dean in developing the strategic plan and budget for the College and facilitating interactions between the College of Engineering and the Provost's office on any issues related to academic affairs. Furthermore, she was responsible for the Continuing Professional Development Unit, the Computer Aided Network Unit and the Office of Women in Engineering.

#### Associate Dean for Graduate Education, May 1998- August 1999

In that position, she was responsible for all Graduate Programs in the College of Engineering, College Student Fellowships, International Programs and Professional Development Programs.

#### Member of College of Engineering Executive Committee, 1995-1998

This is the Executive Body of the College made by the Dean and four faculty members elected by the faculty and approved by the Regents. In her position as a member of this committee, Prof. Katehi participated in making executive budgetary decisions and introducing/endorsing policies related to budget, faculty promotions/tenure, new programs, resource allocation etc.

#### College of Engineering Associate Director of Graduate Program, 1994-1995

In this position, Prof. Katehi was responsible for the allocation of student fellowships, she was the liaison to Graduate School of Rackham and she was assisting the Associate Dean for Research and Graduate Programs on issues related to the College of Engineering Graduate Program.

#### **HONORS AND AWARDS**

#### National and International Honors and Awards

- The National Academy of Engineering Ramo Simon Founder's Award, October 2015
- Honorary Degree, The American College of Greece, June 2014
- Charter Fellow of the National Academy of Inventors, Feb. 2013
- California STEM Learning Network (CSLNet), Leading Women in STEM Award, Oct. 2012
- Elected Member of the American Academy of Arts and Sciences, 2011
- Greek America's Best and Brightest Stars (GABBY) Education and Academia Award, June 2011
- Rudy E. Henning Distinguished Mentoring Award, IEEE, April 2011
- Aristeio Award in Academics, American Hellenic Council of California, 2010
- Fellow of the of the American Association for the Advancement of Science, 2007
- Elected Member of the National Academy of Engineering, 2006
- UCLA Engineering Alumnus of the Year Award, 2006
- Leading Light Award for Women in High Tech, State of Indiana, 2004
- Distinguished Educator Award, IEEE MTT-S, Seattle, WA, June 2002
- Third Millennium Medal, IEEE Microwave Theory and Techniques Society, June 2000
- IEEE Fellow, Fall 1995
- Humboldt Research Award, 1994
- URSI Booker Award, (Young Scientist Award), USNC/URSI, XXII General Assembly, Tel-Aviv, Aug. 1987
- Presidential Young Investigator Award, NSF, January 1987
- Zonta International, Amelia Earhart Fellowship Award, 1982 1983 and 1983
   1984

#### Best Paper Professional Society Awards

- The 2001 IEE Marconi Premium Prize, Best Paper Award, by the IEE, UK, London Spring 2001
- 1997 Best Paper Award by the International Microelectronics and Packaging Society (IMAPS)
- 1996 Microwave Prize for Best Paper in the IEEE Transactions on Microwave Theory and Techniques
- 1985 IEEE AP-S Schelkunoff's (Best Paper) Award, Vancouver, Canada, June 1985.
- 1984 IEEE AP-S R.W.P. King Award, Boston, MA, June 1984

#### **University Awards**

- Faculty Recognition Award, The University of Michigan, Fall 1994
- Research Excellence Award, Electrical Engineering and Computer Science Department, The University of Michigan, 1993

#### Best National Conference Paper Awards

- 2001 IEEE MTT-S IMS Best Paper Award (1st Prize) with Ron Reano and John Whitaker for the paper Integrated Electro-Thermal Probe, Proceedings of 2001 IEEE MTT-S International Microwave Symposium, Phoenix, AZ, May 2001
- 2000 IEEE MTT-S IMS Best Paper Award (2nd Prize) with William J. Chappell and Mathew Little for the paper "High-Q Two-Dimensional Defect Resonators-Measured and Simulated," 2000 IEEE Microwave Theory and Techniques Society, Boston, MA, June 2000
- 2000 IEEE MTT-S IMS Best Paper Award (1st Prize) with Katherine Herrick for the paper "RF W-Band Wafer-to-Wafer Transition," 2000 IEEE Microwave Theory and Techniques Society, Boston, MA, June 2000
- 1999 IEEE MTT-S IMS Best Paper Award (1st Prize) Contest with James Becker for the paper "Toward a Novel Planar Circuit-Compatible Silicon Microwave Waveguide," 1999 IEEE Topical Conference in Electronic Packaging, San Diego, October 1999

- 1998 IEEE MTT-S IMS Best Paper Award (1st prize) with Gildas Gauthier for the paper "A 94 GHz Aperture-Coupled Micromachined Microstrip Antenna," 1998 IEEE Microwave Theory and Techniques Society, Baltimore, MA, June 1998
- 1998 IEEE MTT-S IMS Best Paper Award (3rd Prize) with Sergio Pacheco for the paper "Micromechanical Electrostatic K-Band Switches," 1998 IEEE Microwave Theory and Techniques Society, Baltimore, MA, June 1998
- 1997 IEEE MTT-S IMS Best Paper Award (1st Prize) with Katherine Herrick for the paper "W-Band Micromachined Finite Ground Coplanar (FGC) Line Circuit Elements," IEEE MTT-S, Denver, CO, June 1997
- 1995 IEEE MTT-S IMS Best Paper Award (2nd Prize) with Kazem Sabetfakhri for the paper "Fast Wavelet Analysis of 3-D Dielectric Structures Using Sparse Matrix Techniques," IEEE MTT-S, Orlando, FL, May 1995
- 1995 IEEE MTT-S IMS Best Paper Award (3rd Prize) with Tom Weller for the paper "Miniature Stub and Filter Designs Using the Microshield Transmission Line," IEEE MTT-S, Orlando, FL, May 1995
- 1994 IEEE MTT-S IMS Best Paper Award (1st Prize) Rhonda Franklin for the paper "Development of Miniature Microwave Circuit Components Using Micromachining Techniques," IEEE MTT-S, San Diego, CA, June 1994
- 1993 IEEE AP-S Best Symposium Paper Award (3rd Prize) with Kazem Sabetfakhri for the paper "On the Application of Quasi-Wavelet Expansions to Open Dielectric Waveguide Problem," IEEE AP-S, Ann Arbor, MI, June 1993
- 1993 IEEE MTT-S IMS Best Paper Award (3rd Prize) with Kazem Sabetfakhri for the paper "Novel treatment of Open Dielectric Waveguides," IEEE MTT-S, Atlanta, GA, June 1993
- 1992 IEEE MTT-S IMS Best Paper Award (2nd Prize) with Andy Engel "On the Analysis of a Transition to a Layered Ridged Dielectric Waveguide," IEEE MTT-S, Tempe AZ, 1992

# **PATENTS** - Issued

- U.S. patent 5,608,263 entitled Micromachined self packaged circuits for highfrequency applications, March 4, 1997
- 2. U.S. patent 5,821,836 entitled Miniaturized filter assembly, October 1, 1998
- 3. U.S. patent 5,913,134 entitled Micromachined self packaged circuits for high-frequency applications, June 15, 1999
- 4. US Patent 6,081,239, Planar antenna including a superstrate lens having an effective dielectric constant, June 27, 2000
- 5. US Patent 6,207,903, Via transitions for use as micromachined circuit interconnects, March 27, 2001
- 6. U.S. Patent 6,480,162, Low cost compact omni-directional printed antenna, November 12, 2002
- 7. U.S. Patent 6,509,880, Integrated planar antenna printed on a compact dielectric slab having an effective dielectric constant, January 21, 2003
- 8. U.S. Patent No. 6,664,93, Multifunction Antenna for Wireless and Telematic Applications, December 16, 2003
- 9. U.S. Patent 6,677,769, Scanning electromagnetic-field imager with optical-fiber-based electro-optic field-mapping system, January 13, 2004
- 10. U.S. Patent 6,696,645, On-wafer packaging for RF-MEMS, February 24, 2004
- 11. U.S. Patent 6,825,741, Planar filters having periodic electromagnetic bandgap substrates, November 30, 2004
- 12. U.S. Patent No. 6,906,506, Method and apparatus for simultaneous measurement of electric field and temperature using an electro-optic semiconductor probe, June 14, 2005
- 13. U.S. Patent No. 6,906,669, Multifunction antenna, June 14, 2005
- 14. U.S. Patent No. 7,196,637, Antenna system embedded in a support structure for integrating a tire sensor, March 27, 2007
- 15. U.S. Patent No 7,283,029, 3-D transformers for high-frequency applications, October 16, 2007

- 16. US. Patent No. 7,760,142, Self-Aligned Wafer Level Integration System, December 2008
- 17. U.S. Patent No. 7,760,142, Vertically Integrated Transceiver Array, December 2009
- 18. U.S. Patent No. 7,824,997, Membrane Suspended MEMS Structures, May 2010
- 19. U.S. Patent No. 7,825,868, Hand held Reader Antenna for RFID and Tire Pressure Monitoring System, June 2010

# **PATENT - Applications**

- 20. U.S. Patent Application 20090246929, Membrane Suspended MEMS Structures, May 2009
- 21. U.S. Patent Application 20080309545, Speed Measuring Device Including Fresnel Zone Plate lens Antenna, December 18, 2008
- 22. U.S Patent Application 20080252401, Evanescent Mode Resonator Including Tunable Capacitive Posts, October 16, 2008
- 23. U.S patent Application 20080100394, Microstrip-to-Coplanar Waveguide Transition, May1, 2008

# PROFESSIONAL SERVICE

# Chair of Presidential Committees

- Chair of the President's Committee for the National Medal of Technology, 2007-2010
- Chair of the Secretary of Commerce Committee for the National Medal of Technology, 2008-2010

#### Member of Board of Directors

- Member of the University Research Association (URA) Board, 2014-2016
- Honorary Chair of the Board of the California Million Women Mentors 2015-2016
- Member of the Board of the National Research Council Government University Industry Research Roundtable 2014- Today
- Member of the Board of the Institute for Advanced Studies, Texas A&M, 2015-Today
- Member of the Board of the Greater Sacramento Area Council, 2014-2016
- Member of the Board of John Wiley & Sons, Inc., 2011-2014
- Member of the Board of the American Association for the Advancement of Science, 2007-2011
- Member of the Board of the CIC (Consortium on Institutional Collaboration) 2006-Today
- Member of the Board of the Cyprus Institute, 2008-2015
- Member of the Board of Bay Area Council of Economic Interests, 2010-2016
- Member of the Board of the Business Higher Education Forum, 2010-2016
- Member of the Board of the National Security Higher Education Forum, 2010-2016
- Member of the Board of Valley Vision, 2010-2016

# Chair/Member of National/International Advisory Committees

- Member of the Western Association of Schools and Colleges (WASC) Accrediting Commission, 2013-2015
- Member of the Government-University-Industry Research Roundtable (GUIRR) Council, The National Academies, 2012-2016
- Member of the International Advisory Board, King Abdulaziz University (KAU), 2012-2013
- Member of the California STEM Learning Network (CSLNet), 2011-2015
- Member of the Women and the Green Economy (WAGE) Campaign, 2011-Today
- Member of the Council on Competitiveness Executive Council, 2011-2016
- Member of the Council for International Exchange of Scholars Advisory Board, 2009-Today
- Member of the Executive Leadership in Academic Technology and Engineering (ELATE) Advisory Board, Drexel University, 2010-2013
- Member of the Caltech Advisory Committee of the Engineering Division, 2007-2010
- Member of the Advisory Committee of the Harvard Radcliff College, 2006-2010
- Member of the NAE Advisory Committee on the Future of Engineering Research Enterprise, 2003-2005
- Member of the NAS Advisory Committee for Sensors and Communication Systems for the Special Operation Forces, 2008-2010
- Vice Chair of the Engineering Dean's Council of the American Association of Engineering Education, 2005-2006
- Member of the Public Policy Committee of the Engineering Dean's Council of the American Association of Engineering Education, 2003-2005
- Member of the Advisory Committee of the College of Engineering of University of Illinois at Chicago, 2005 - 2008
- Member of the Engineering Advisory Committee, Iowa State University, 2003
   2006

- Member of the NRC Telecommunications Board, 2003-2004
- Member of the NRC, Army Research Lab Advisory Committee on Sensors and Electronics Division (SED), 2003 2008
- Member of the NSF Advisory Committee to CISE, September 2003 present
- Member of the NSF Advisory Committee to the Engineering Directorate, 2002present
- Chair of the NSF Advisory Committee to the Engineering Directorate, 2004 2005
- Member of the NASA Aerospace Technical Advisory Committee (ATAC). Scientific Advisory Committee to Code R Associate Administrator, 2002 present
- Member of the NASA Council of Deans, 2004-present
- Chair of Pioneer Revolutionary Technologies Subcommittee for The Aerospace Enterprise of NASA, 2002-2004
- Faculty Advisor for CEN to DoD HPCMO under the PET II Program, 2001-2004
- Member of the DoD Advisory Group on Electron Devices, 2000-present
- Member of the Advisory Board of Extraordinary Women Engineers Project, 2004-2006

# Chair/Member of National Professional Committees

- Member of the National Academies Committee on "Radiation Electronics", 2017- present
- Member of the IEEE Committee for the "Edison Medal", 2010-2013
- Vice Chair of National Academy of Engineering Selection Committee for Section 7 "Electronics", 2016- present
- Chair of the National Academies Committee on "Pathways to Urban Sustainability: Challenges and Opportunities for the United States", 2015-2016

- Member of the National Academy of Engineering Selection Committee for the Draper Prize, 2015- present
- Member of the National Academy of Engineering Committee on "Making Value for America", 2013-2015
- Member of the National Academy of Engineering Committee on "Emerging Sensing Technologies", 2009-2011
- Member of the National Academy of Science Committee on "NRC Conceptual Framework for Science Education", 2010-2012
- Chair of the National Academy of Engineering Committee on "K-12 Engineering", 2008-2010
- Member of the IEEE Committee for the "Electromagnetics Prize", 2009-2012
- Member of the National Academy of Sciences Committee on "Ensuring the Integrity, Accessibility, and Stewardship of Research Data in the Digital Age", 2009-2011
- Member of the National Academy of Engineering Committee on Membership, 2010-2011
- Member of the National Academy of Engineering Ad-Hoc Committee on "Engineering Education", Fall 2011
- Member of the Academy of Arts and Sciences Committee on Federal Funding for Research, ARISE II, 2010-2012
- Member of the Editorial Board for the Journal on Engineering Education, 2008-2011
- Member of the National Academy of Sciences Committee on "Sensors and Electron Devices', 2009-2010
- Member of the National Academy of Engineering on "Lifelong Learning", May 2009
- Member of the Academy of Arts and Sciences Committee on Federal Funding for Research, ARISE I, 2007-2009
- Member of the Kaufman Foundation Advisory Board, 2005-2009
- Member of the IEEE Committee for the Mulligan Educational Medal, 2009-2011

- Chair of the THz Electronics Workshop, April 2005
- ADCOM Member, IEEE Microwave Theory and Techniques Society, 2001-2005
- National Academies of Engineering and Science, Liaison between URSI and IEEE AP-S, 1999-2001
- Chair of the IEEE MTT TPC Subcommittee on RF MEMS, 2000-2003
- Chair of the IEEE MTT-S 21 Subcommittee on RF MEMS, 2000-2003
- Member of the IEEE MTT-S 21 Subcommittee on RF MEMS, 2000-2006
- Member of the Executive Committee of the IEEE MTT Topical Meeting on SiGe Devices and Circuits for High-Frequency Applications, April 23-26, 2000, Munich, Germany
- Focused Session Chair/Organizer, Sponsored by IEEE Microwave Theory and Techniques Society, Packaging Technologies for Advanced Microwave/Millimeter-Wave Systems Baltimore, MA, June 2000
- Member of NSF Technical Evaluation Committee on Wireless Communications, 1999
- Chair of the NSF Strategic Initiatives Workshop on Wireless Communications Networks, July 21-22, 1999, Washington DC
- Chair of the IEEE MTT Topical Meeting on SiGe Devices and Circuits for High-Frequency Applications, September 17-18, 1999, Ann Arbor, Michigan
- Short Course, Organized by the Army Federated Lab, Short Course on MEMS for RF Applications, July 1999
- Workshop Chair/Organizer, Organized by the IEEE Microwave Theory and Techniques Society RF MEMS, Anaheim, CA, June 1999.
- Workshop Chair/Organizer, Sponsored by IEEE Microwave Theory and Techniques Society, Wavelets in Electromagnetics, Denver, CO, July 1997.
- Member of the NSF Technical Evaluation Committee (WTEC) on Wireless Technologies 1998-1999
- Conference Chair, NSF Conference on Technologies for Wireless Communications Systems, July 1998, Arlington, VA

- Member, Panel for Electronics Strategic Planning for the Army Research Office, 1996-Today
- Chair of the IEEE MTT Topical Meeting on SiGe Devices and Circuits for High-Frequency Applications, September 17-18, 1998, Ann Arbor, Michigan
- Associate Editor of IEEE MTT Transactions for Special Issues, 1996-1998
- Chair of Distinguished Lecturers Program, IEEE Antennas and Propagation Society, 1996-1998
- Chair of the IEEE MTT-S TPC Subcommittee on Passive Components, 1998-Today
- Workshop Chair/Organizer, Organized by the IEEE Microwave Theory and Techniques Society Application of Wavelets to Electromagnetics, Long Beach, CA, June 1996.
- Workshop Chair/Organizer, Application of Wavelets to Electromagnetics, Organized by the IEEE Antennas and Propagation Society, Baltimore, CA, July 1996.
- Short Course, Organized by the Army Research Office, Short Course on Wavelets, August 1995.
- Member of the IEEE MTT-S-15 Subcommittee on Field Theory, 1995-Today
- Member of the Executive Committee of the 1998 IEEE Conference on Electromagnetic Field Computation (CEFC)
- Member of Organizing Committee of the Topical Meeting on Electrical performance of Electronic Packaging 1996-Today
- Member, Review Panels for the NSF Presidential Young Investigator Awards, 1996-1998
- Member, Review Panels for the NSF Graduate Fellowships, 1995-1997
- Chairman of the Technical Program for the 1993 International Symposium on Antennas and Propagation, Ann Arbor, MI
- Associate Editor for Radio Science, 1992-1995
- Associate Editor for Antennas and Propagation, 1992-1996
- Technical Program Committee Member for the IEEE Microwave Theory and Techniques Society, 1988-today

- Member of IEEE Antennas and Propagation Administrative Committee, 1993-1996
- Member of the Editorial Board for Compumag
- Member for the Editorial Board of Advanced Computational Electromagnetic Society
- Member of the Editorial Board for International Magazine on Computer Aided Design
- Vice Chair of the IEEE AP/ED/MTT Southeastern Michigan Chapter, 1988-1989
- Chair of the IEEE AP-S/MTT-S/ED-S Southeastern Michigan Chapter, 1989-1990
- Secretary/Treasurer for the IEEE AP-S Chapter in Los Angeles, CA, 1983-1984
- Reviewer for the National Science Foundation 1984-Today
- Reviewer for the Army Research Office, 1984-Today

#### Member to Professional Societies

- IEEE Antennas and Propagation Society
- IEEE Microwave Theory and Techniques Society
- Sigma XI
- International Union of Radio Science (URSI), Commission D.
- International Society of Hybrid Microelectronics.
- Advanced Computational Electromagnetics Society (ACES)
- Marican Society of Engineering Education

#### EDUCATIONAL INTERESTS AND ACHIEVEMENTS

Now in less than fifty years from the previous technological revolution we stand on the brink of a new one that will be more powerful and more dangerous. In its scale, scope, and complexity, this transformation will be unlike anything we have experienced before. According to Klauss Schwab, Founder and Executive Chairman, World Economic Forum "We do not yet know just how it will unfold, but one thing is clear: the response to it must be integrated and comprehensive, involving all stakeholders of the global polity, from the public and private sectors to academia and civil society,".

The Fourth Industrial Revolution is building on everything we have discovered so far and it will use the internet to connect humans and machines in one task. It will bring together technology and culture in a clash of unprecedented proportions with further concentration of populations to what we will call Mega-Cities. The farm land will be managed by robots, the factories will employ robots, and humans will use robots for low level jobs living us wonder of what role we will play in this society.

Considering that cities are a construct of many designed systems, engineering could play a key role in addressing many of the negatives this revolution could bring. In the dawn of the forth industrial revolution, it is imperative that we incorporate sustainability ethics, principles and constraints early in design process. The merging of sustainability and engineering design should be part of engineering education not as an add-on but as integral part of learning of how to design systems.

There is a wonderful opportunity to start teaching engineering while introducing sustainability constraints. The new systems that will emerge from this effort will undoubtedly lead us to a technology that will reduce the gap between those who have access and those who do not, while at the same time they will develop new financial markets and new job categories. One of the most critical criteria for teaching engineering students will not be that we optimize what they know at the time they graduate but that we optimize their ability to learn new concepts and stay innovative in whatever field they choose to follow.

#### Ph.D. Students who completed their degrees under Prof. Katehi's supervision

Larry Dunleavy, Ph.D., 4/1988, University of South Florida, Tampa,

Florida, Professor

William Harokopus Ph.D.,1/1991, Raytheon, Dallas, TX, Senior Research

Scientist

George Eleftheriades Ph.D, 5/1990, Professor, University of Toronto

Norm Vandeberg, Ph.D., 10/1991, ERIM, MI, Senior Research Scientist

Emilie Vandeventer Ph.D., 5/1992, University of Toronto, Canada,

Professor

Nihad Dib Ph.D., 10/1992, Technical Jordan University, Aman,

Jordan, Professor

Andrew Engel Ph.D., 2/1993, HP, Palo Alto, CA, Senior Research

Scientist

Kazem Sabetfakhri Ph.D., 5/1994, EMAG Technologies Inc., President

Thomas Weller Ph.D., 8/1995, University of South Florida, Professor Rhonda Drayton Ph.D., 10/1995, University of Minnesota, Professor

Heng-Ju Cheng Ph.D., 4/1999, Hewllet Packard, Palo Alto, CA,

Senior Research Scientist

Jong-Gwan Yook Ph.D., 5/ 1996, Kwang-Ju Institute of Science and

Technology, Korea, Professor

Steve Robertson Ph.D., 12/1996, Lucent Technologies, New Jersey, NY

S Senior Research Scientist

George Ponchak Ph.D., 2/1997, NASA Glenn Research Center, OH, S

enior Research Scientist

Manos Tentzeris Ph.D., 2/1998 Georgia Tech, GA, Professor

Jui-Ching Cheng Ph.D., 2/1998 Taiwan University, Professor Rashaunda Henderson Ph.D., 10/1999, University of Texas at Dallas,

Professor

Kavita Governdahanam Ph.D., 1/1999, Bell Labs, Senior Research Scientist.

John Papapolymerou Ph.D., 2/1999, Michigan Tech, Professor

Katherine Herrick Ph.D., 12/1999, Raytheon, Andover, MA, Research

Scientist

Donghoon Chun Ph.D., 9/2000, EMAG Technologies, Ann Arbor,

Senior Research Scientist

John D. Shumpert Ph.D., 11/2000, Northrop Grumman, MA, Senior Research Scientist Ph.D., 12/2000, EMAG Technologies, Ann Arbor, MI, **Kyoung Yang** Senior Research Scientist Kevin Lu Ph.D., 2/2001, Taiwan University, Professor Zenqian (Jack) Ma Ph.D., 2001, Co-Advised with Prof. Bhattacharya, University of Wisconsin, Professor Jae-Sung Rieh Ph.D., 2001, Co-Advised with Prof. Bhattacharya, University of Seoul, Professor **Jim Becker** Ph.D., 5/2001, Montana State University, Professor Sergio Pacheco Ph.D., 10/2003, Motorola, Phoenix, AZ, Senior Research Scientist William Chappel Ph.D., 9/2002, Purdue University, Professor Costas Sarris Ph.D., 10/2002, University of Toronto, Professor Lee Harle Ph.D., 3/2003, Michigan State University Dimitris Peroulis Ph.D., 7/2003, Purdue University, IN, Professor Alex Margomenos Ph.D., 7/2003, HRL, CA, Senior Research Scientist Yongshik Lee Ph.D. 1/2004, Yonssei University, Korea, Professor Ron Reano Ph.D. 2/2004, Ohio State Univ., OH, Professor Yongming Cai Ph.D. 4/2004, University of Michigan, Research Scientist Kok-Yan Lee co-advised with Professor Bhattacharya, Ph.D. 12/2004, University of Michigan, Research Scientist Yumin Lu co-advised with Dimitris Peroulis, Ph.D., 12/2004, Senior Engineering MA/Com, Boston, MA co-advised with Bill Chappell, Ph.D., 12/2004, Xun Gong

Associate Professor, University of Central

Florida, FL

Tae Yong Lee Ph.D. 1/2007, University of Michigan

Rosa Lahiji Ph.D. 4/2009 from Purdue University, Case Western,

Research Scientist

Xin Wang Ph.D. 8/2008 from Purdue University, Central

Florida University, Associate Professor.

Leo Liu Ph.D. 10/2010 from Purdue University, 8/2010,
Purdue University, UC Davis, Assistant
Professor

# <u>Masters Students who have completed their MS degree only under Prof. Katehi's supervision</u>

Claudia Zarnadelli MSEE, 12/1991, Chrysler, MI, Research Engineer Minoo Gupta MSEE, 12/1992, TI, Dallas TX, Research Engineer Morgan Kurk MSEE, 9/1993, Motorola, Chicago, Il, Research

Engineer

Mike Coluzzi MSEE, 6/1990, ITT, Los Angeles, CA, Research

Engineer

Clyde Galerwaert MSEE, 5/1998, General Motors, Research Engineer Noel Baisa MSEE, 1/1998, General Motors, Research Engineer Tom Schwartz MSEE, 1/2000, Physics Department, Univ. of

Michigan, Professor of Physics

Phil Garber MSEE, 5/2001, Northrop Grumman Kelly Turnquist MSEE, 1/2002, Northrop Grumman Emigdio Inigo MSEE, 5/2003. Northrop Grumman Michael Reiha MSEE, 12/2004 Delft University

# <u>Post Doctoral Fellows or Research Scientist who have actively participated in</u> <u>research projects</u>

Nihad Dib Ph.D., University of Michigan, 10/1992 - 9/1994

Micheal Krumpholz Ph.D., Technical Univ. of Munich, Germany, 10/1993

-3/1995

Steve Roberston Ph.D., University of Michigan, 1/1997 - 7/1998 Jong-Gwan Yook Ph.D., University of Michigan, 12/1996 - 10/1998

Gearhart David Ph.D., Univ. of Duisburg-Humboldt Fellow, 1996-1999

Katherine Herrick Ph.D., University of Michigan, 2/2000 - 12/2000

Donghoon Chun Ph.D., University of Michigan (Part-time),

10/2000 to Present

Saeed Mohammadi Ph.D., University of Michigan, 10/1999 to 9/2002 John Whitaker Ph.D., University of Michigan, 10/1997 to 9/2002 Jack East Ph.D., University of Michigan, 10/1995 to Present

| Powel Czarnul | Ph.D., University of Warsaw, 1/1/2000 to 10/2002 |
|---------------|--|
| Werner Thiel  | Ph.D., University of Ulm, 3/1/2001 to Present    |
| Louis Lu      | Ph.D., University of Leeds, 1/1/2002 to Present  |
| Lee Harle     | Ph.D., University of Michigan, 5/2003-12/2003    |
| J Jeon        | Ph.D., Purdue University, 1/2003-Today           |
| Boshui Lu     | Ph.D., University of Cincinnati, 1/2003-Today    |
| Xing Lee      | Ph.D., The University of Michigan, 1/2005-Today  |
|               |  |

#### RESEARCH INTERESTS AND ACHIEVEMENTS

#### I. RESEARCH FOCUS

Professor Katehi is an expert in the areas of development and characterization (theoretical and experimental) of microwave, millimeter printed circuits; the computer-aided design of VLSI interconnects; the development and characterization of micro-machined circuits for microwave, millimeter-wave and sub-millimeter-wave applications including MEMS switches, high-Q evanescent mode filters and MEMS devices for circuit re-configurability; the development of low-loss lines for sub-millimeter-wave and terahertz frequency applications; theoretical and experimental study of uniplanar circuits for hybrid-monolithic and monolithic oscillator, amplifier and mixer applications; theoretical and experimental characterization of photonic band-gap materials.

The most important contributions of here work are:

The development of novel three-dimensional integration along with on-wafer packaging schemes

Katehi has been a pioneer in studying high-frequency effects on planar circuits and understanding parasitic radiation, substrate-wave propagation, and the importance of high-frequency parasitic phenomena on the performance of planar circuits. Her work demonstrated that 3-D integration is the approach to achieve high performance in high frequencies. In pursue of fully integrated three-dimensional circuit architectures and on-wafer packaging, she explored for the first time the use of Si-micromachining in circuit design.

Katehi developed three-dimensional circuit integration architectures and on wafer packaging that have been adopted by DoD and the defense industry as the architecture for the next generation of high-frequency circuits. Based on Katehi's work DARPA funded four major research and development programs, MAFET III, IRFFE, MERFS and SMART, of a total of \$200M to demonstrate 3-D circuit architectures on receive and transmit systems

operating between 2Ghz and 94GHz. Furthermore, the defense industry is now using the architectures pioneered by Prof. Katehi to develop the RF front ends of the next generation of military sensors such as XG, JTRS, GPS-Guided Munitions. Specifically, Lincoln Labs and Northrop Grumman have adopted the on-wafer packaging for RF MEMS which was demonstrate by Katehi's work and Raytheon and Rockwell Collins used these three-dimensional interconnects for their reconfigurable high-frequency RF systems. Prof. Katehi's fundamental designs have been incorporated in the development of new systems worth a total of \$1B-\$10B in the defense economy and due to substantial gains in size and performance have provided savings of many hundreds of million of dollars in the cost of these systems.

The first demonstration of a membrane-supported interconnect for operation from dc to 500GHz along with non-invasive vector-wave measurements of near fields

This work led to the development of novel filters for terahertz frequencies and embedded high-Q filters high-Q filters (Q>3,000) and inductors (Q>100) for operation up to 100 GHz. This work was further extended to demonstrate the first on-wafer package for high-frequency membrane circuits including RF MEMS switches and introduced the concept of heterogeneous wafer integration in high-density 3-D interconnect networks. She performed pioneering work to demonstrate through the DARPA funded "94GHz Power-Cube" that 3-D circuit integration is superior to the 2-D and provides answers to low-power consumption at high frequencies.

# Fast Time Domain Methods for Application to High-Frequency Circuits

Prof. Katehi has made contributions to the development of fast time domain methods for application to the solution of high frequency circuits. She was able to solve, for the first time, Maxwell's equations for fairly complex boundary value problems using a new time domain method based on the use of Wavelets (multi-resolution expansions). This method, known as MRTD, is the first demonstrated time domain method in electromagnetics that allows for a time adaptive gridding in a mathematically rigorous way

and consistent with the physical conditions governing the solution of the problem.

#### Commercialization of High-Frequency Tools

In addition to her scientific and engineering contributions, Prof. Katehi has participated in considerable technology transfer. In December 1994, she started, as one of three owners, a company, which was built on her work on the modeling of high-frequency circuits and antennas using fast multiresolution-based computational methods. Since 1994, EMAG Technologies, based in Ann Arbor MI, has employed more than 100 engineers and is commercializing the first high-frequency circuit and antenna software with extensive design capability. EMAG Technologies recently have recently commercialized NEOSCAN, a portable, electro-optic, fiber-based system for non-invasive vector near-field measurements. This system is based on the work by Prof. Katehi's group that was recognized in 1995 by the Microwave Prize of the IEEE Microwave Theory and Techniques Society.

#### II. PUBLICATIONS

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Linda P.B. Katehi, "Diversifying Higher Education," 14th Annual Cesar Chavez Youth Leadership Conference, Opening Remarks, Davis, CA, March 15, 2014 Linda P.B. Katehi, "The Role of Advance Manufacturing in the US Economy," NAE Regional Meeting, Public Symposium on Manufacturing, Davis, CA, April 1, 2014

Linda P.B. Katehi, "The Role of Innovation in Global Health," University of California Global Health Day, Opening Remarks, Davis, CA, April 26, 2014

Linda P.B. Katehi, "Technology and the Millennial Generation" TEDxUC Davis 2014 Conference, Session speaker with Helena Tseregounis, Davis, CA, May 4, 2014

Linda P.B. Katehi, "Cutting-edge Research can Feed the World", Op-ed for the Sacramento Bee, May 29, 2014

Linda P.B. Katehi, "The Role of Engineering in the 21 Century Culture", 15th Annual IEEE Wireless and Microwave Technology Conference, Keynote Speaker, Tampa Bay, Florida, June 6, 2014

Linda P.B. Katehi, "Higher Education Challenges and Opportunities", ACE National Challenge for Higher Education Conference, Plenary Speaker, Washington, DC, July 31, 2014

Linda P.B. Katehi, "What Can Western China Learn from the Development of California Agriculture" International Forum on Development Strategies & Ecological Issues in Western China, Yangling, China, September 12, 2014

Linda P.B. Katehi, "Diversity Leads to Success in Higher Education", Op-ed for the Huffington Post, September 30, 2014

Linda P.B. Katehi, "The Role of Women in the 21. Century" 4th Annual COACHE Women's Leadership Forum, Orlando, Florida, November 2, 2014

Linda P.B. Katehi, "For America's Future, Engineering Needs to Diversify", Oped for the Huffington Post, , November 7, 2014

Linda P.B Katehi, "My Advice for Young Working Women: Find a Mentor and a Way to Persevere", Blog post on Maria Shriver's Blog, November 13, 2014

#### **2015**

Linda P.B. Katehi, "Engineering of the Future", Op-ed for the Huffington Post, January 16, 2015

Linda P.B. Katehi, "Sustainability as a Principle, Practice, Driver and Culture" – University of Utah, Judd Distinguished Lecture Series, Salt Lake City, UT, March 16, 2015

Linda P.B. Katehi, "Using Fashion Design to Bring Awareness to heart Disease with the Red Dress" Blog post on Maria Shriver's Blog, March 13, 2015

Linda P.B. Katehi, "Climate-Smart Agriculture in the 21<sup>st</sup> Century", Global Science Conference, Plenary Speaker, Montpellier, France, March 16, 2015

Linda P.B. Katehi, "Innovation in the 21st Century Economy", 4th Annual Conference, National Academy of Inventors, Plenary Speaker, Pasadena, CA, March 20, 2015

# 2016

H Rashtian, LPB Katehi, QJ Gu, X Liu, "A 200-GHz, "Triple-Push Oscillator in 65-nm CMOS with Design Techniques for Enhancing DC-to-RF Efficiency," Proceedings of the 16th IEEE Conference on Silicon Monolithic Integrated Circuits in RF Systems (SiRF), January 2016

# <u>2017</u>

Kazem Sabet, Richard Darragh, Ali Sabet, Kamal Sarabandi and Linda P.B. Katehi, "Using Electro-Optic Field Mapping for Design of Dual-Band Circularly Polarized Active Phased Arrays," Proceedings of the IEEE Wireless and Microwave Technology Conference, April 24-26, 2017

Linda P.B. Katehi, "Sustainability and the 4<sup>th</sup> Industrial Revolution," Proceedings of the IEEE Wireless and Microwave Technology Conference, April 24-26, 2017

#### III. WORKSHOPS, SHORT COURSES, AND SEMINARS

#### Organized Workshops and Short Courses and Topical Meetings

- Workshop on RF MEMS Modeling and Characterization, Organizer and Speaker, 2003, IEEE MTT-S, Philadelphia, June 2003
- Workshop on Recent Developments in Si Micromachining and MEMS for High-Frequency Applications, Organizer and Speaker, EUMC, Milan, Italy, October 2002
- Workshop on RF MEMS, Organizer and Speaker, EUMC, London, UK, October 2001
- Workshop on Wavelets for EM, Device and Circuit Modeling, Organizer and Speaker: L.P.B. Katehi, Wavelets for Multiresolution Time Domain, IEEE MTT-S, Boston, MA, June 2000
- Workshop on Millimeter-Wave Packaging-Industry Practices and Emerging Technologies, Organizer and Speaker: L.P.B. Katehi and G.W Ponchak, On-Wafer Packaging and Three-Dimensional Integration, IEEE MTT-S, Boston, MA, June 2000
- NSF Conference on RF MEMS and Micromachined Circuits for Wireless Communications Systems, Dec 1999, Arlington, VA, Conference Chair
- Workshop on RF Micromachining for High Frequency Applications, European Microwave Conference, Munich, Germany, October 1999, Organizer and Speaker
- Workshop on RF MEMS for High Frequency Applications, IEEE MTT-S, Anaheim, CA, June 1999, Organizer and Speaker
- NSF Conference on Technologies for Wireless Communications Systems, July 1998, Arlington, VA, Conference Chair
- IEEE Microwave Theory and Techniques Topical Meeting on Si-Ge Circuits for High Frequency Applications, Ann Arbor MI, Fall 1998, Conference Chair
- Workshop on Wavelets in Electromagnetics, Organized by the IEEE Antennas and Propagation Society, Atlanta, GA, July 1998, Organizer and Speaker

- Workshop on High-Frequency Silicon Micromachining and Multi-Chip Integration, IEEE MTT-S, Baltimore, June 1998, Organizer and Speaker
- Workshop on Si-Based High-Frequency Circuits, Radio Frequency Integrated Circuits, June 1997, Denver, CO, Organizer and Speaker
- Workshop on Wavelets in Electromagnetics, Organized by the IEEE Microwave Theory and Techniques Society, Denver, CO, July 1997, Organizer and Speaker
- Workshop on Application of Wavelets to Electromagnetics, Organized by the IEEE Antennas and Propagation Society, Baltimore, CA, July 1996, Organizer and Speaker
- Workshop on Application of Wavelets to Electromagnetics, Organized by the IEEE Microwave Theory and Techniques Society, San Francisco, CA, June 1996, Organizer and Speaker
- Short Course on Wavelets, Organized by the Army Research Office, August 1995
- Short Course on Modern Computation Methods for Antennas, Circuits and Scattering, Organized by the IEEE Antennas and Propagation Society, Ann Arbor, Michigan, June 1993
- Short Course on Novel Transmission Lines for Submillimeter-Wave Applications, JPL, August 1992
- Short Course on Analysis of Waveguide-Fed Longitudinal Slots, Ericsson, Sweden, May 1989
- Short Course on High Frequency Performance of Microstrip Circuits, ERIM, Ann Arbor, Michigan, February 1985
- Short Course on The Theoretical Characterization of Microstrip Circuits, ERIM, Ann Arbor, Michigan, November 1984

#### **Invited Seminars**

Gender Issues in Engineering Institutions of Higher Education, The Society of Electrical and Computer Engineering Chairs and Heads, Hawaii, March 2003

- Three-Dimensional Microcircuits and Systems, Technical Meeting, DARPA, Washington DC, March 2003
- Robust RF MEMS, Technical Meeting, DARPA, Washington DC, January 2003
- Micromachined Circuits for High-Frequency Applications, University of Minnesota, March 2000
- High Efficiency Micromachined Antennas and Circuits, University of Illinois at Chicago, April 1997
- Advanced Packaging in High-Frequency Circuits, University of Illinois, Champaign-Urbana October 1997
- Switching Noise in Printed Circuit Boards, INTEL, Oregon, January 1997
- Advanced Packaging in High-Frequency Circuits, University of Illinois, Champaign-Urbana, October 1996
- Si-Micromachining in High-Frequency Applications, IEEE MTT-S Seminar, South Florida Chapter, October 1996
- Si-Micromachining in High-Frequency Applications, Hughes Aircraft, December 1996.
- Advanced Packaging, Raytheon, October 1996
- Micromachined Circuits, Hughes Aircraft, Santa Barbara, August 1996
- Advanced Computations in Electromagnetics, Rockwell Science Center, May 1996
- High-Efficiency Circuits and Antennas, Hughes Aircraft, El Segando, November 1996
- Micromachined circuits, TRW, July 1996
- Micromachined Circuits for High-Frequency Applications, Army Research Labs, Fort Monmouth, February 1996
- Micromachined Circuits for High-Frequency Applications, Naval Warfare Systems, Washington DC, February 1996
- Micromachined Circuits for High-Frequency Applications, Airforce, Wright Patterson Labs, Dayton, Ohio, February 1996

- Micromachined Circuits for High-Frequency Applications, Hughes Aircraft, Radars Division, LA, CA, November 1995
- Computation of Switching Noise, INTEL, Phoenix, AZ, October 1995
- Si-Micromachined Circuits for High-Frequency Applications, IEEE MTT-S Chapter of South London, England, April 1995
- Si-Micromachined Circuits for High-Frequency Applications, IEEE MTT-S Chapter of South London, England, April 1995
- Si-Micromachined Circuits for High-Frequency Applications, IEEE MTT-S Chapter, Machenster, England, April 1995
- Si-Micromachined Circuits for High-Frequency Applications, IEEE MTT-S Chapter, University of Queens, Belfast, Ireland, April 1995
- Planar Transmission Lines of Aperture Type, IEEE MTT-S Chapter, Dallas, April 1995
- Micromachined circuits, IEEE MTT-S Chapter, Dallas, October 1994
- > Switching Noise in Printed Circuit Boards, INTEL, Oregon, April 1993
- Micromachined Lines for Submillimeter-Wave Applications, University of South Florida, April 1993
- Novel Transmission Lines for Submillimeter-Wave Applications, University of Illinois, Chicago, March 1992
- Analysis of Slot Arrays, IEEE MTT-S Chapter, Dallas, October 1991
- Radiation Effects in Open Microstrip Circuits, IEEE MTT-S Chapter, Dallas, October 1990
- Mutual Coupling in Stripline Fed Slots, Bendix / Allied Signal, Baltimore, Maryland, March 1990
- Characterization of Stripline Fed Slots, Bendix/Allied Signal, Baltimore, Maryland, October 1989
- Uniplanar Circuits for High-Frequency Applications, IEEE AP-S Chapter, Gothenberg, Sweden, May 1989

- Integral Equation Techniques for Planar Circuit Analysis, New York Polytechnic, New York, March 1989
- Planar Circuits for High-Frequency Applications, University of Arizona, April 1989
- Parasitic Radiation Effects in High-Frequency Applications, University of Texas, San Antonio, April 1988
- Full-Wave Analysis Techniques for Microstrip Circuits, University of Arizona, March 1988
- Numerical Analysis Tools for Microstrip Circuits, IEEE MTT-S Chapter, Los Angeles, March 1988

#### **Invited Presentations in Workshops**

- NAE Workshop/Panel on Engineer of 2020, July 23, 2004
- NAE Workshop on Diversity in the Engineering Carriculum September 2004
- Workshop on MEMS, BAW and Micromachined Filter Technology, 2004 IEEE IMS, Micromachined 3-D Filters in Silicon and Ceramic Substrate, by W. Chappell, L. P.B. Katehi, Forth Worth, Texas, June 7, 2004
- Workshop on Technologies for Frequency or Phase-Agile Circuits and Systems, 2004 IEEE IMS, by D. Peroulis and Linda P.B. Katehi, Forth Worth, Texas, June 7, 2004
- East-West Workshop on Advanced Techniques in Electromagnetics, Warsaw Poland, May 20 -21, 2004
- Workshop on Recent Developments in Si Micromachining and MEMS for High-Frequency Applications, Numerical Modeling of RF and Elecromechanical Characterization of RF MEMS Switches, EUMC, Milan, Italy, October 2002
- Workshop on Recent Developments in Si Micromachining and MEMS for High-Frequency Applications, RF MEMS, EUMC, Milan, Italy, October 2002
- Workshop on RF MEMS, Novel Circuits for High-Frequency Applications, MEMSWAVE, Heraklion, Crete, June 26-28, 2002

- Workshop on Nanodevice and Related Technologies, Keynote Speaker, Novel Circuits for high-Frequency Applications, Taipei, Taiwan, May 2002
- Workshop on Packaging, Speaker, IEEE MTT-S, Phoenix, AZ, May 2001
- L.P.B. Katehi, Advanced Concepts in Packaging, Workshop on RF MEMS, IEEE AP-S, Salt-Lake City, Utah, July 2000
- L.P.B. Katehi, Micromachined Passive Components for RF Front Ends, Workshop on Microwave and Photonic Applications of MEMS, IEEE MTT-S, Boston, MA, June 2000
- J. Whitaker and L.P.B. Katehi, Electro-Optic Near-Field Probing for High-Resolution Diagnostic of Arrays, Workshop on Spatial and Quasi-Optical Power Combining Arrays, IEEE MTT-S, Boston, MA, June 2000
- Workshop on Electromagnetic Crystal Structures (WECS): Design, Synthesis and Applications, Laguna Beach, California, 6-8 January 1999
- Workshop on High-Frequency Silicon Micromachining and Multi-Chip Integration, IEEE MTT-S, Baltimore, June 1998
- Strategic Planning Workshop, Army Research Office, Charleston, South Carolina, January 1998
- Workshop on Si-Based High-Frequency Circuits, Radio Frequency Integrated Circuits, June 1997, Denver, CO
- NATO Workshop on Numerical Modeling, August 1997, Samos, Greece
- Workshop on Si-Based High-Frequency Circuits, RFIC, June 1997, Denver, CO
- Workshop on Wideband Antennas Organized by the Office of Naval Research, Orlando, Florida, April 1997
- Workshop on Quasi-Optics Organized by Army Research Office and DARPA, University of Santa Barbara, CA, March 1997
- Workshop on CAE, Modeling and Measurement Verification, Organized by IEEE MTT/ED/ AP and the 1994 Microwaves Conference, Wembley, London, October 1994, Keynote Speaker

- Workshop on Discrete Time Domain Modeling of Electromagnetic Fields and Networks, Organized by the German IEEE CAS Chapter and the European Research Office of the U.S. Army, Berlin, Germany, October 1993
- Workshop on Waves and Devices in the Military to Commercial Transition and Beyond, Organized by the IEEE Waves and Devices Society, October 1992
- Workshop on Numerical Techniques for Planar Circuits, Organized by the German IEEE MTT-S Chapter, Stuttgart, Germany, September 1991, Invited Speaker
- Workshop on High-Frequency Interconnects, Organized by the IEEE
   Microwave Theory and Techniques Society, Long Beach, California, June 1989