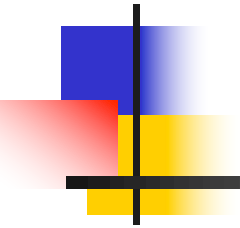

YOU AND YOUR CAREER

Ljiljana Trajković
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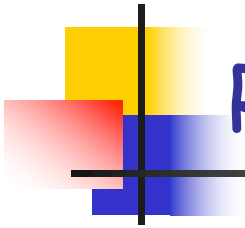
Communication Networks Laboratory
http://www.ensc.sfu.ca/cnl
Simon Fraser University
Vancouver, British Columbia
Canada



Roadmap

- The role that education plays in our lives and careers
- Life and career choices, experiences in industrial and academic jobs, and opportunities when volunteering for professional organizations
- The importance and power of commitment to always try to achieve one's best

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Biographical Note

- Dipl. Ing. Degree in Power Engineering, University of Pristina, Yugoslavia, 1974
- MS in EE and MS in CE, Syracuse University, 1979 and 1981 (respectively)
- Ph.D. in EE, UCLA, 1986
- Visiting Lecturer, UCLA, 1986-1988
- Member of Technical Staff, AT&T Bell Laboratories, Murray Hill, NJ, 1988-1990
- Research Scientist, Bell Communications Research, Morristown, NJ, 1990-1995
- NSF Visiting Professor, UC Berkeley, 1995-1997
- Associate Professor and Professor, Simon Fraser University, 1998-present

Biographical Note: Research

Communication networks:

- modeling and analysis of computer networks
- characterization and modeling of network traffic
- performance analysis of communication networks
- simulation of protocols and network control algorithms
- intelligent control of communication systems

Nonlinear circuits and systems:

- analysis of complex systems and networks
- theory of nonlinear circuits and systems
- software tools for circuit simulation
- homotopy methods for finding dc, steady-state, and transient solutions of transistor circuits

Biographical Note: Teaching

Communication networks:

- ENSC 427 Communication Networks
- ENSC 835 Communication Networks
- ENSC 833/CMPT 885 Network Protocols and Performance
- ENSC 894 Special Topics: Communication Networks

Circuits and systems:

- ENSC 151 Digital and Computer Design Laboratory
- ENSC 220 Electric Circuits I
- ENSC 320 Electric Circuits II
- ENSC 895 Special Topics: Theory, Analysis, and Simulation of Nonlinear Circuits

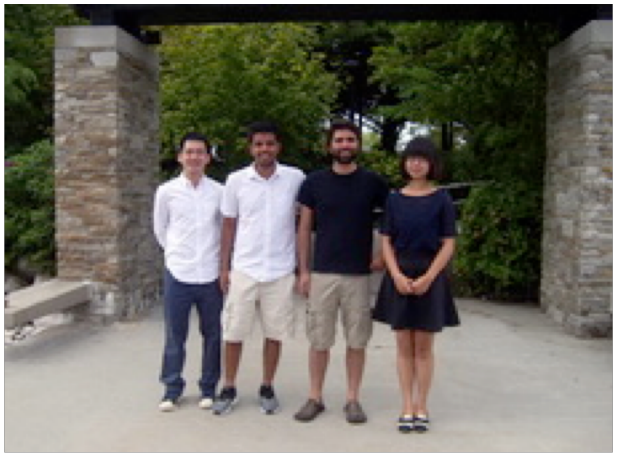
Childhood Memories

Prokletije, mountains in Yugoslavia on the border between Montenegro and Albania

Simon Fraser University
Burnaby Campus

Communication Networks Laboratory

http://www.ensc.sfu.ca/~ljilja/cnl/



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You and Your Research

- "You And Your Research," talk by Richard W. Hamming, given at Bellcore (March 7, 1986)
- R. W. Hamming spent 30 years at Bell Laboratories and is known by his work in mathematics, information theory, coding, and computer science.
- The talks centered on Hamming's observations and research on the question:
- "Why do so few scientists make significant contributions and so many are forgotten in the long run?"
- About what he has learned in terms of the properties of the individual scientist, their abilities, traits, working habits, attitudes, and philosophy

You and Your Research

- "If you chose to assert your ego in any number of ways, `I am going to do it my way,' you pay a small steady price throughout the whole of your professional career. And this, over a whole lifetime, adds up to an enormous amount of needless trouble."
- "In summary, ... some of the reasons why so many people who have greatness within their grasp don't succeed are:
  - they do not work on important problems,
  - they don't become emotionally involved,
  - they don't try and change what is difficult to some other situation which is easily done but is still important, and they keep giving themselves alibis what they don't."

You and Your Research

- "Luck favors a prepared mind. Luck changes the odds, but there is some definite control on the part of the individual."
- One prescription: work hard!

Great Teachers

- "The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires."

  William A. Ward

- "The teacher who is indeed wise does not bid you to enter the house of his wisdom but rather leads you to the threshold of your mind."

  Khalil Gibran

- "A teacher affects eternity; he can never tell where his influence stops."

  Henry Adams

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Great Teachers

- "Great teachers do not all have a single style - but they do all have a singular goal: to reach students in ways that have deep and lasting influence on how they think and act throughout their lives and careers."

  Hass School of Business, UC Berkeley

- Great teacher:
  - Communicates a thorough knowledge of and enthusiasm for the relevant field or subject
  - Presents that knowledge coherently and connects it with other allied fields or subjects
  - Challenges students and increases their capacity for independent thought
  - Transforms, enhances, or innovates teaching methodology and practice.

  Otis College of Design and Arts

Guts, Gumption, Smarts, and Luck

- Are they enough to get you to the top?

Communications Skills

Presenting your way to the top:

- "No skill opens more doors, creates more visibility, or gives you more opportunity to exercise power. Right or wrong, fair or unfair, the person who is capable of articulating an idea is usually credited with having had it."

J. Calano and J. Salzman, *Career Tracking: 26 Success Shortcuts to the Top*. New York: Simon and Schuster, 1988.

Communications Skills

- 204 British CEOs rated the five factors they felt were most influential in their rise to the top:
  - the ability to work with variety of people
  - early overall responsibility for important tasks
  - a need to achieve results
  - leadership experience early in career
  - wide experience in many functions prior to age 35

US News and World report, Sept. 25, 1989.

Professional Organizations

- IEEE
  http://www.ieee.org/
- IEEE WiE
  https://www.ieee.org/membership_services/membership/women/women_in_engineering.html
- Association of Computing Machinery
  http://www.acm.org/
- Sigma Xi Scientific Society
  https://www.sigmaxi.org/
- Society of Women Engineers
  http://societyofwomenengineers.swe.org/

IEEE

- Institute of Electrical and Electronics Engineers:
  - professional association for electrical and electronics engineers
  - a NY not-for-profit corporation – governed by NY law for corporate governance issues
  - a U.S. corporation governed by US law
  - a member organization - no shareholders
  - focused on "public benefit"
  - organized as a single organization
  - governed by the Board of Directors

IEEE Vision and Mission

VISION

IEEE will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions.

MISSION

IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity.

IEEE Statistics

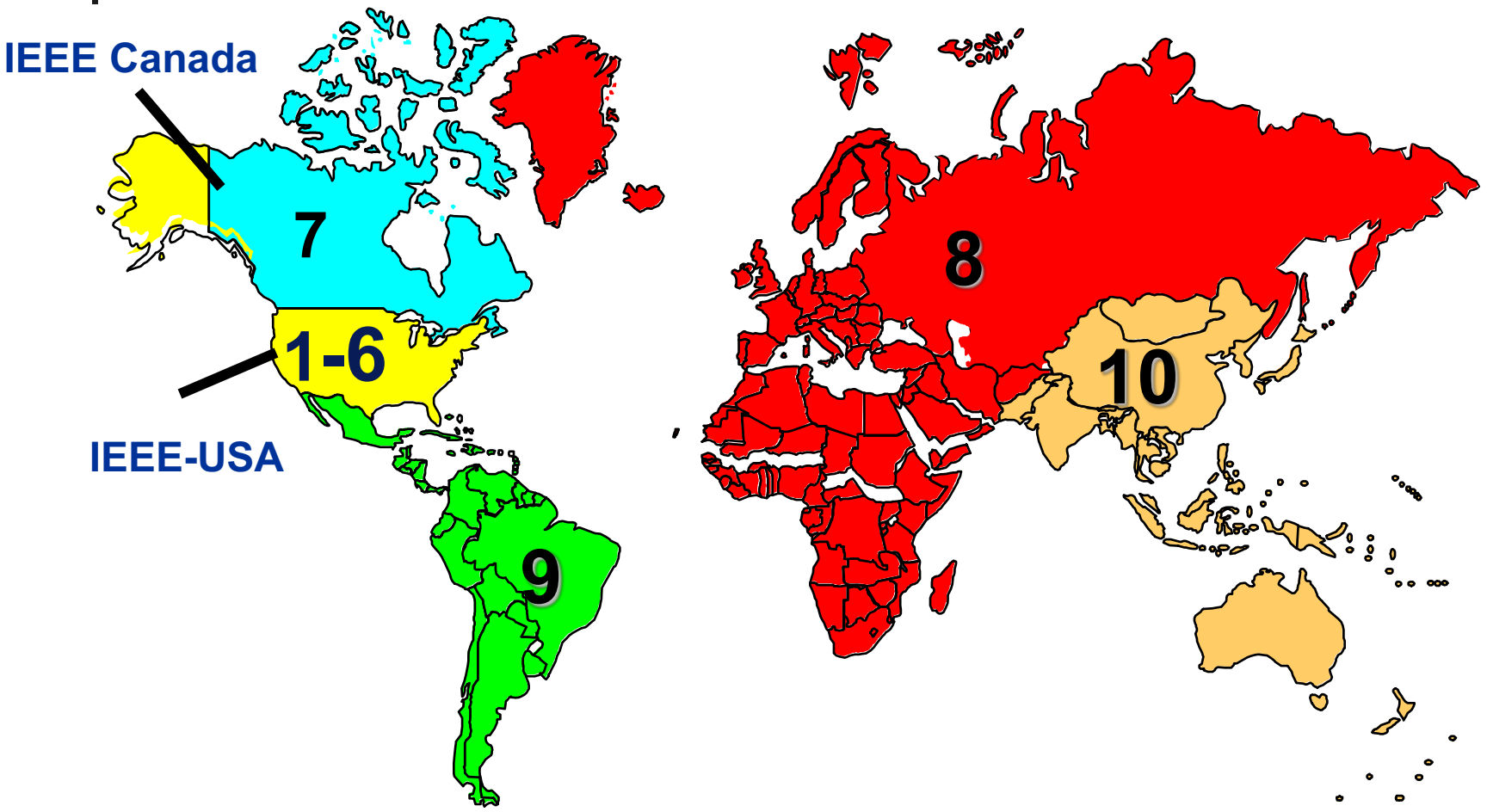
May 2018:

- 355,502 members including 42,007 graduate students and 60,016 undergraduate student members in more than 160 countries

December 31, 2017:

- 334 Sections in ten geographic regions worldwide
- 2,116 Society chapters
- 3,005 Student branches at colleges/universities in over 100 countries
- 1,481 student branch chapters if IEEE technical societies
- 486 affinity groups: IEEE-USA Consultants' Network, Young Professionals (YP), Women in Engineering (WIE), Life Members (LM), and IEEE Entrepreneurship

The IEEE Regions



IEEE Statistics

- 39 technical Societies and seven technical councils
- More than 4 million documents in the IEEE Xplore® Digital Library, with more than 8 million downloads each month
- Over 1,300 active standards and more than 600 standards under development
- Publishes approximately 200 transactions, journals, and magazines
- Sponsors more than 1,800 conferences in 98 countries:
  - Partnering with more than 1,400 non-IEEE entities globally
  - Attracting more than 484,000 conference attendees
  - Publishing more than 1,700 conference proceedings via IEEE Xplore

Biographical Note

IEEE:

- IEEE Division Delegate-Elect/Director-Elect (2018), IEEE Division X Delegate/Director (2019–2020)

IEEE Systems, Man, and Cybernetics Society:

- President (2014–2015)
- Vice President Publications (2012–2013, 2010–2011)
- Vice President Long-Range Planning and Finance (2008–2009)
- Member at Large, Board of Governors (2004–2006)

IEEE Circuits and Systems Society:

- President (2007)
- Member, Board of Governors (2001–2003, 2004–2005)

Biographical Note

- Chair, IEEE Circuits and Systems Society joint Chapter of the Vancouver/Victoria Sections.
- Chair, IEEE Technical Committee on Nonlinear Circuits and Systems (1998).

Conferences:

- General Co-Chair of SMC 2020, SMC 2016, HPSR 2014
- Technical Program Co-Chair, ISCAS 2005: Technical Program Chair and Vice General Co-Chair, ISCAS 2004

Publications:

- Associate Editor, IEEE Transactions on Circuits and Systems (Part I) (2018-, 2004–2005, 1993–1995), (Part II) (1999–2001, 2002-2003), IEEE Circuits and Systems Magazine (2001–2003)

Biographical Note

- Distinguished Lecturer of the IEEE Circuits and Systems Society (2010–2011, 2002–2003)
- Professional Member of IEEE-HKN (2015)
- Fellow of the IEEE (2005)

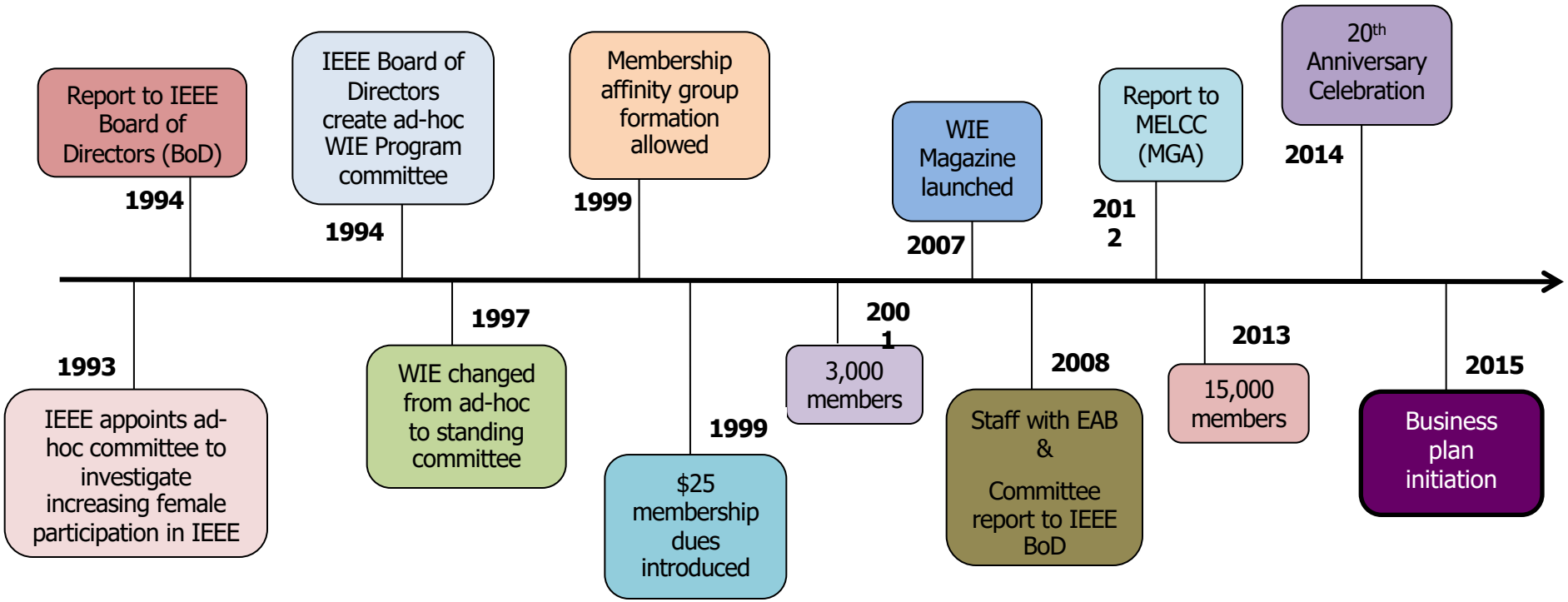
Professional Organizations

- IEEE WiE:
  http://wie.ieee.org/
- WIE Chair:
  women@ieee.org

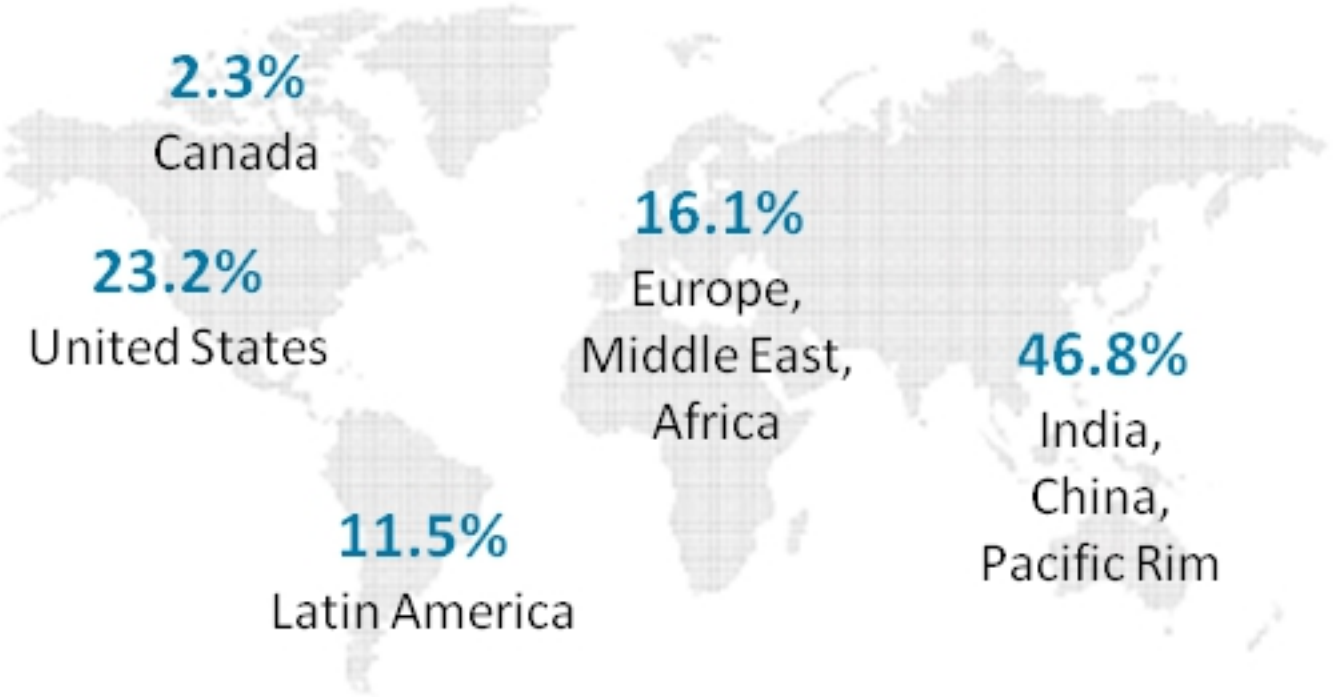
IEEE Women in Engineering

- The mission of IEEE WIE is to facilitate the global inspiration, engagement, and advancement of women in technical disciplines. IEEE WIE envisions a vibrant community of IEEE women and men collectively using their diverse talents to innovate for the benefit of humanity
- Established in 1994: 25 years history

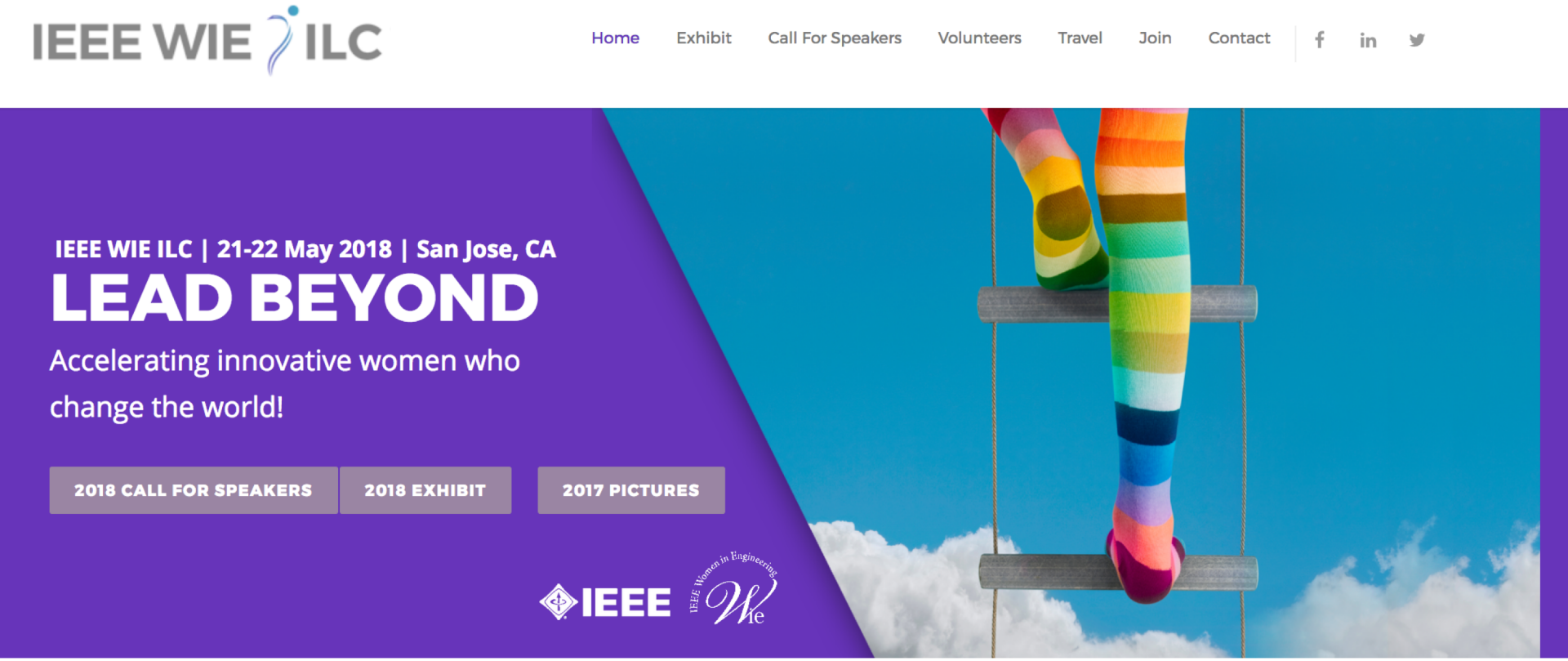
IEEE WiE History



IEEE WiE Statistics: 18,031 members, May 2018



2018: IEEE WIE International Leadership Conference



IEEE WiE Magazine

winner of the 2008, 2010, 2017 APEX Awards for Publication Excellence


Women in Engineering
IEEE
2018


Egypt


Trinidad &
Tobago

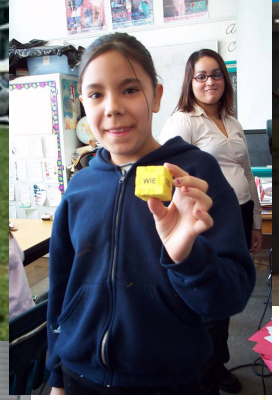

Madras


Brazil


Ecuador


German
y


United States




R·I·T Dubai
United Arab Emirates


Ireland


Hyderaba


Vancouver


Alabama


Japan


Puerto Rico


IEEE
Annual General Meeting
2014


SAFDARIA GIRLS HIGH SCHOOL
HUMAYUN NAGAR HYDERABAD
IEEE
WIE

R10


INSTITUTE OF ELECTRICAL AND
ELECTRONICS ENGINEERS (IEEE)


DREAM
PROGRESS


IEEE
SHASTRA VISHWAM
Science & Engineering
Awareness Workshop

IEEE Women in Engineering

Upcoming events:

- 10-12Aug. 2018, IEEE WIE ILS Tunisia Leadership Summit
- 14-15 Sept. 2018, Conference On Comp and Char Techniques in Engineering & Sciences (CCTES-18)
- 21 Sept. 2018, IEEE WIE Tech Powered by Women (TechW) Workshop, Vancouver, British Columbia, Canada
- 8 Nov. 2018: IEEE WIE ILS El Salvador
- 26-27 Nov. 2018: IEEE WIE ILS Australia

Internet Resources

- Computer Professionals for Social Responsibility: http://cpsr.org/issues/womenintech/
- The Ada Project (TAP): http://women.cs.cmu.edu/ada/
- Women's Opportunities in Technology: https://meetingtomorrow.com/content-library/womens-opportunities-in-technology

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