



# YOU AND YOUR CAREER

---

Ljiljana Trajković  
ljilja@cs.sfu.ca

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



# 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



# 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

# Childhood Memories

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

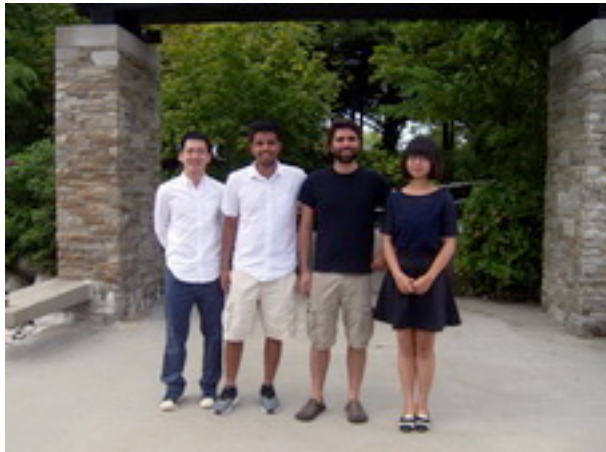


# Simon Fraser University Burnaby Campus



# Communication Networks Laboratory

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





# 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



# 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



# 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



# 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](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/>

- 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.



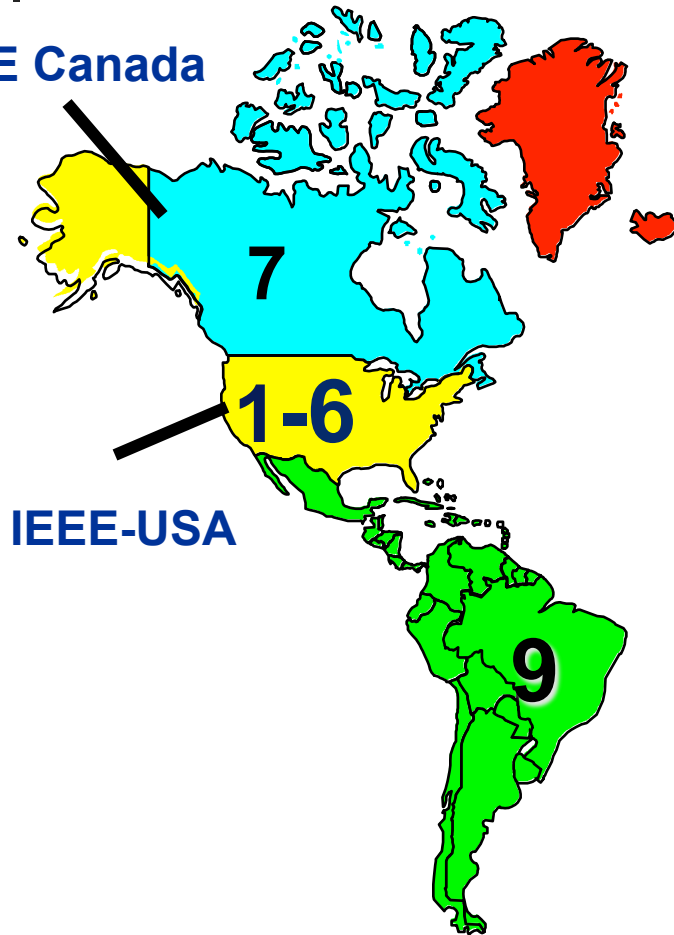
# IEEE Statistics: June 2016

---

- 370,394 members including 89,873 student members in more than 160 countries
- Sections in ten geographic regions worldwide
- Society chapters
- Student branches and student branch chapters at colleges/universities
- 39 societies and 6 technical councils representing over 390 affinity groups consisting of:
  - Consultants' Network, Life Members (LM), Women in Engineering (WiE), and Young Professionals (formerly Graduates of the Last Decade (GoLD)) groups

# The IEEE Regions

IEEE Canada



IEEE-USA





# IEEE SMC Society Chapters: R10

---

<http://www.ieeesmc.org/chapters-communities/chapters/asia>

Australia:

- Victorian Chapter

China:

- Baoding Chapter
- Beijing Capital Region Chapter
- Beijing Section Chapter
- Chengdu Section Chapter
- Guangzhou Chapter
- Harbin Section Chapter
- Harbin Section (Jilin) Chapter
- Hong Kong Section Chapter
- Nanjing Section Chapter
- Shenzhen Chapter
- Xi'an Chapter



# IEEE SMC Society Chapters: R10

---

<http://www.ieeesmc.org/chapters-communities/chapters/asia>

India:

- Bangalore Section Chapter
- Bombay Section Chapter
- Gujarat Section Chapter

Japan:

- Hiroshima Section Chapter
- Japan Chapter

Macau:

- Macau Section Chapter

Malaysia:

- Malaysia Section Chapter

Korea:

- Seoul Section Chapter



# IEEE SMC Society Chapters: R10

---

<http://www.ieeesmc.org/chapters-communities/chapters/asia>

Singapore:

- Singapore Section Chapter

Taiwan:

- Taichung Section Chapter
- Tainan Section Chapter
- Taipei Section Chapter

# Professional Organizations

- IEEE WiE:  
<http://wie.ieee.org/>
- WIE Chair:  
[women@ieee.org](mailto:women@ieee.org)



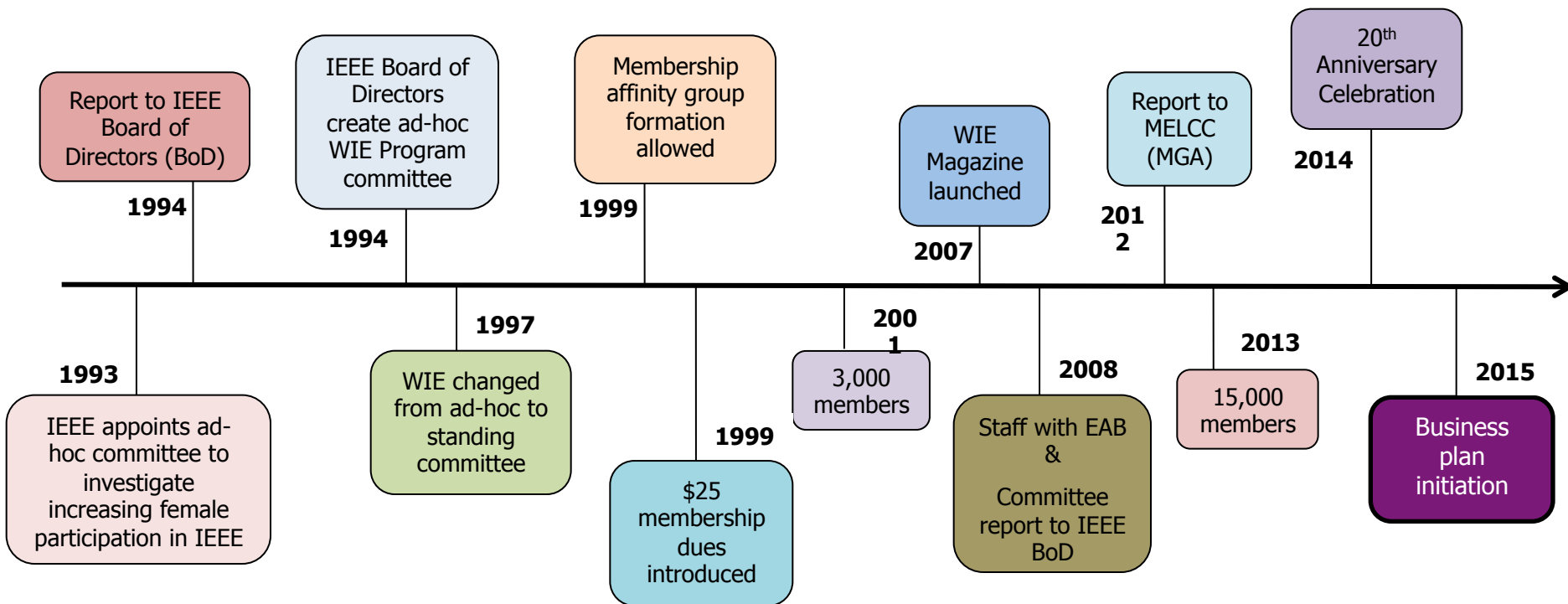


# IEEE Women in Engineering

---

- 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: more than 20 years history

# IEEE WiE History



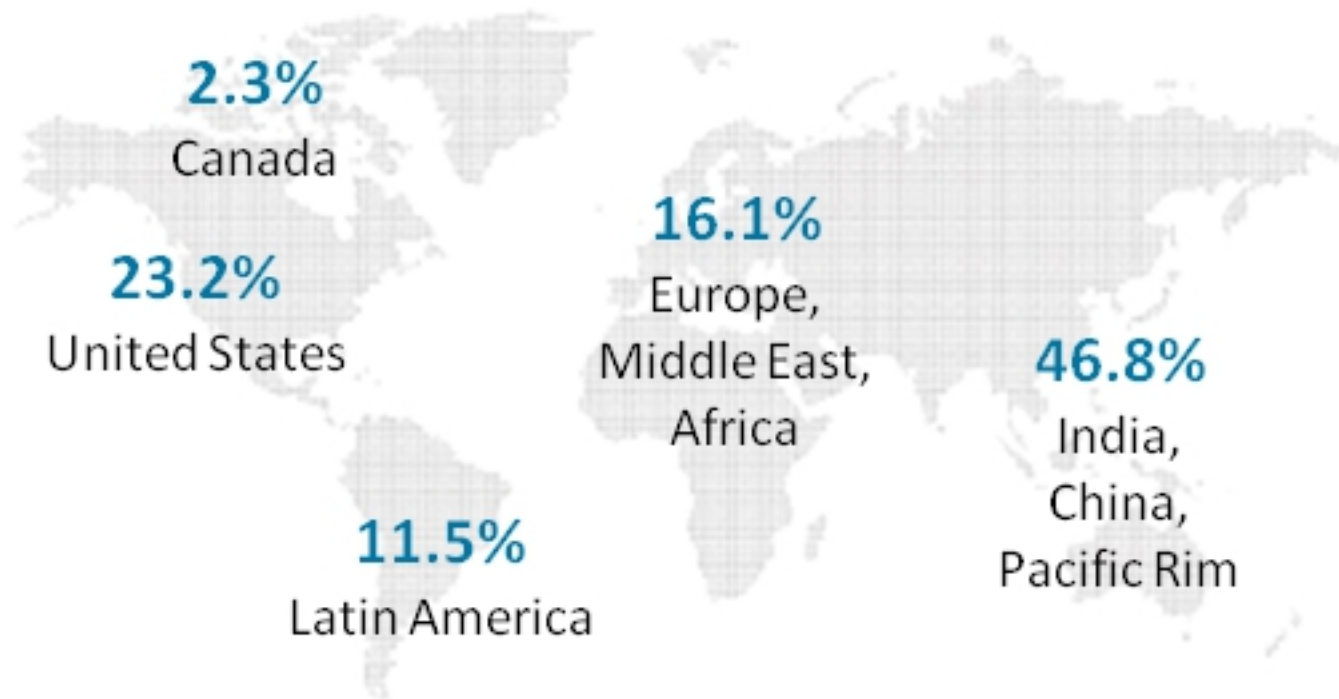


# IEEE WiE Statistics: May 2014

---

Grade		Region	
Fellow	90	Region 1-6	2,846
Senior Member	535	Region 7	286
Member	2,171	Region 8	2017
Associate Member	43	Region 9	1,574
Graduate Student	1,951	Region 10	4,632
Student	6,565		
Total	11,355	11,355	11,355

# IEEE WiE Statistics: ~17,554 members, 2015



WIE Global Membership

# 2016: IEEE WIE International Leadership Conference

## LEAD BEYOND

Accelerating Innovative Women  
who Change the World

@WIEILC #WIELEAD

23-24 May 2016  
Capital of Silicon Valley  
San Jose, CA



IEEE

IEEE Women in Engineering  
Wie



# Magazine: Winner of the 2008-2015 APEX Awards





**Egypt**



**Trinidad & Tobago**



**Madras**



**Brazil**



**Ecuador**



**Germany**



**United States**



**United Arab Emirates**



**Ireland**



**Hyderabad**



**Vancouver**



**Alabama**



**Japan**



**Puerto Rico**



R10



18.04.2015



July 7, 2016

ICSSE 2016, NCNU, Nantou County, Taiwan



# 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



# 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>