



IEEE and SMC Society

2015 Celebrity Lectures Program
IEEE Systems, Man, and Cybernetics Society

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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: August 2015

- 383,172 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:
 - Consultants' Network
 - Young Professionals (formerly *Graduates of the Last Decade, GoLD*)
 - Women in Engineering (WiE)
 - Life Members (LM) groups.

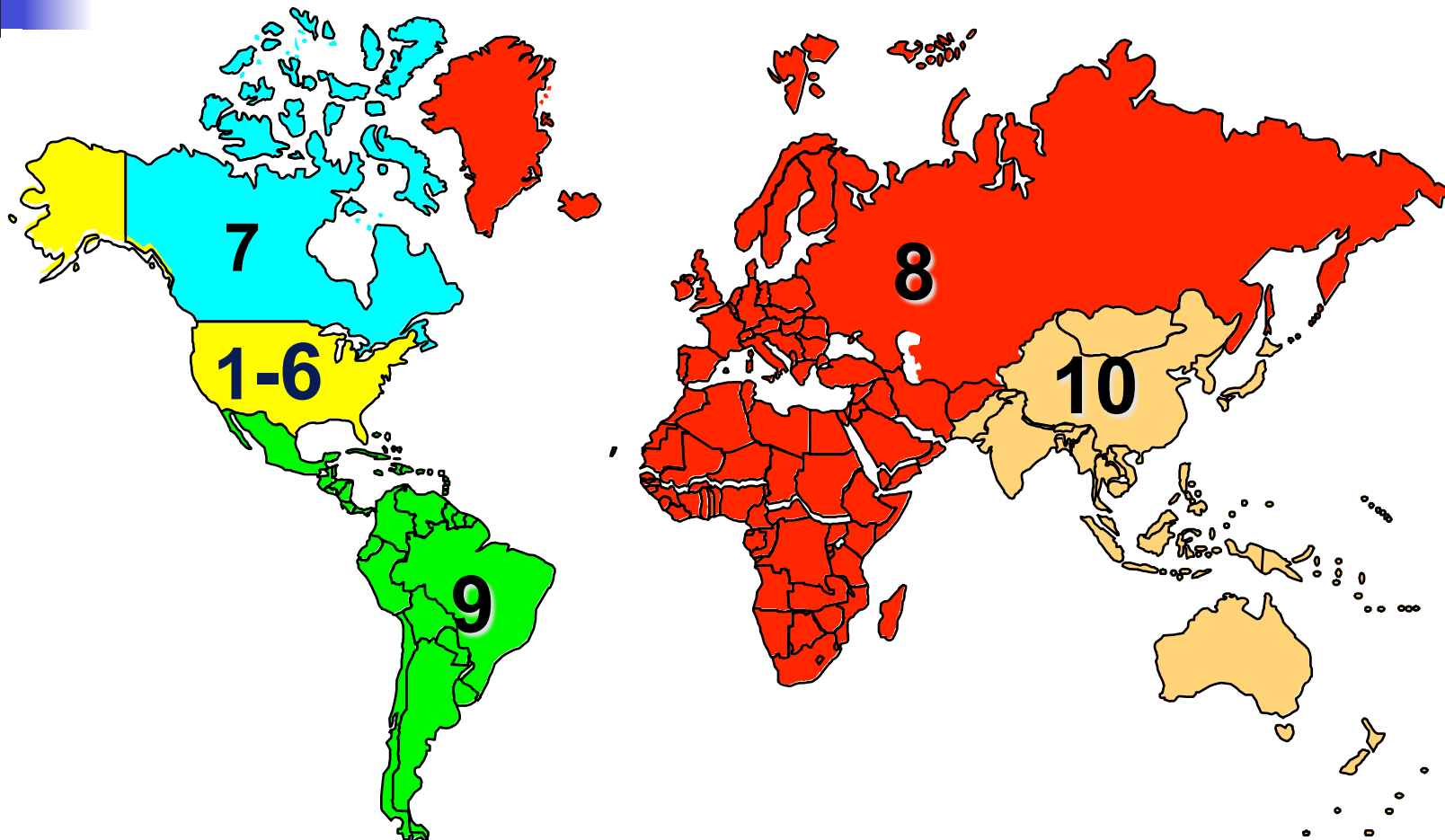


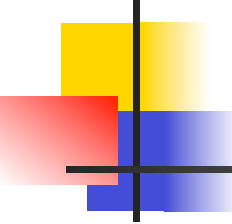
IEEE Statistics: August 2015

383,172 members:

- Honorary: 32
- Fellow: 7,243
- Senior Member: 37,755
- Member: 246,400
- Associate Member: 8,406
- Graduate Student: 32,518
- Undergraduate Student: 50,818
- Society Membership: **300,530**

The IEEE Regions





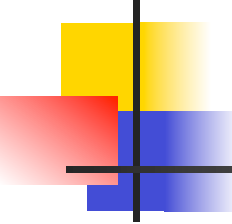
Systems, Man, and Cybernetics Society

Society website: <http://www.ieeesmc.org/>

Board of Governors

- Executive Committee:

- President, President-Elect, Jr. Past President, Sr. Past President
- Vice Presidents Technical Activities: Cybernetics, Human-Machine Systems, Systems Science and Engineering
- Vice Presidents: Conferences and Meetings; Membership and Student Activities; Organization and Planning; Publications
- Vice President Finance (new in 2016)



Systems, Man, and Cybernetics Society

Board of Governors:

- Members at Large (elected by the Society membership)
- 15 members
- 5 members elected each year

Appointed members:

- Society treasurer
- Society Secretary
- Senior Advisor for Region 1-8 Outreach

Geographical, technical, and gender representations



2015 SMCS BoG Members

Term ending 2015:

- Julie Adams
- Maria Fanti
- Chun Che (Lance) Fung
- Yutaka Hata
- Enrique Herrera-Viedma

Term ending 2016:

- Patrick Chan
- Honghai Liu
- Fabio Roli
- Adrian Stoica
- Robert Woon

Term ending 2017:

- Plamen Angelov
- Dmitry Goldgof
- Tadahiko Murata
- Shun-Feng Su
- MengChu Zhou

Society treasurer:

- Robert Woon

Society Secretaries:

- Rodney Roberts
- Randy Hoover

Senior Advisor for Region 1-8

Outreach:

- Edward Tunstel



2015 SMCS Vice Presidents

- Vladimir Marik, VP Cybernetics
- Chris Nemeth, VP Human-Machine Systems
- Rodney Roberts, VP Systems Since and Engineering
- Sam Kwong, VP Conferences and Meetings
- Imre Rudas, VP Membership and Student Activities
- Irv Engelson, VP Organization and Planning



SMC Society 2015 Committees

- Cybernetics Committee
- Human-Machine Systems Committee
- Systems Science and Engineering Committee
- Conferences and Meetings Committee
- Membership and Student Activities Committee
- Organization and Planning Committee
- Publications Committee
- Publications Ethics Committee
- Electronic Communications Subcommittee



SMC Society 2015 Committees

- *Standards Committee*
- Search Committee for the Nominations Committee
- Nominations Committee
- *Awards Committee*
- *Fellows Committee*
- History Committee
- *Committee on Financial Transparency*

* Established in 2015



SMC Society 2015 Committees

- IEEE Councils and Committees
- **Big Data** Initiative Committee
- Biometric Council Society
- IEEE/CAA Journal of Automatica Sinica Steering Committee
- **IEEE Cloud Computing** Steering Committee
- Nanotechnology Council AdCom
- IEEE Press
- Region 8 Chapter Coordination Committee
- RFID Council
- **Smart Grid**

* Appointed in 2015



SMC Society 2015 Committees

- **Society on Social Implications of Technology** Board of Governors
- **Standards Association**
- Systems Council AdCom
- Transactions on Affective Computing Steering Committee
- Transactions on Big Data Steering Committee
- Women in Engineering

* Appointed in 2015



SMCS Technical Activities

- Cybernetics
- Human Machine Systems
- Systems Science and Engineering



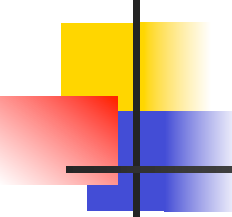
SMCS: Cybernetics

1. Awareness Computing
2. Big Data Computing
3. Computational Collective Intelligence
4. Computational Cybernetics
5. Computational Intelligence
6. Computational Life Science
7. Cybernetics for Cyber-Physical Systems
8. Diagnostics and Prognostics
9. Evolving Intelligent Systems
10. Granular Computing
11. Information Assurance & Intelligent Multimedia-Mobile Communications
12. Intelligent Industrial Systems
13. Intelligent Internet Systems
14. Intelligent Vehicular Systems & Control
15. Knowledge Acquisition in Intelligent Systems
16. Machine Learning
17. Medical Informatics
18. Pattern Recognition
19. Soft Computing



SMCS: Human Machine Systems

1. Biometrics and Applications
2. Brain-Machine Interface Systems
3. Cognitive Computing
4. Computer Supported Cooperative Work in Design
5. Environmental Sensing, Networking and Decision-Making
6. Human Centered Transportation Systems
7. Human-Computer Interaction
8. Human Perception in Multimedia Computing
9. Information Systems for Design and Marketing
10. Interactive and Wearable Computing and Devices
11. Shared Control
12. Visual Analytics and Communication



SMCS: Systems Science and Engineering

1. Conflict Resolution
2. Cyber-Physical Cloud Systems
3. Discrete Event Systems
4. Distributed Intelligent Systems
5. Enterprise Architecture and Engineering
6. Enterprise Information Systems
7. Grey Systems
8. Homeland Security
9. Infrastructure Systems and Services
10. Intelligent Green Production Systems
11. Intelligent Learning in Control Systems
12. Intelligent Power and Energy Systems
13. Intelligent Transportation Systems
14. Logistics Informatics and Industrial Security Systems
15. Medical Mechatronics
16. Model-Based Systems Engineering
17. Robotics and Intelligent Sensing
18. Service Systems and Organization
19. System of Systems
20. Systems Biology



SMCS Publications

IEEE Transactions on Cybernetics

- Jun Wang

IEEE Transactions on Human-Machine Systems

- Ellen Bass

IEEE Transactions on System, Man, and Cybernetics: Systems

- C. L. Philip Chen

IEEE Transactions on Computational Social Systems
(with IEEE Computer Society 45%)

- George Cybenko
- Eunice E. Santos



SMCS Transactions

SMC Magazine

- Mo El-Hawary

SMC eNewsletter

- Mo El-Hawary

eNewsletter website:

<http://ieeesmc.org/newsletters/>



SMCS Conferences and Meetings

Financial sponsorship:

- IEEE International Conference on Networking, Sensing and Control (ICNSC 2015)
- IEEE International Conference on Systems, Man, and Cybernetics (SMC 2015)
- Evolving and Adaptive Intelligent Systems (EAIS 2015)



SMCS Conferences and Meetings

Financial co-sponsorship:

- IEEE 18th International Conference on Computer Supported Cooperative Work (CSCW 2016) (30%)
- 14th International Conference on Machine Learning and Applications (ICMLA 2015) (50%)
- The Secure Society Conference Ukraine (SESOCUKR 2015) (25%)



SMCS Conferences and Meetings

Technical co-sponsorship:

- 2012: 23 approved
- 2013: 36 approved
- 2014: 39 approved
- 2015: 35 approved (September 2015)



SMCS Conferences and Meetings

Goals:

- Improve the quality of technically co-sponsored conferences by involving the Conferences and Meetings Committee in the approval process
- Involve SMCS Technical Committees in Conference Program Committees
- Solicit reports from the attendees and track the performance



SMC Society 2015 Committees

Membership and Student Activities Committee:

- Distinguished Programs Committee
- Student Activities Subcommittee
- Chapter Coordinators Subcommittee
- Industrial Liaison Committee
- Young Professionals Subcommittee



Membership and Student Activities

IEEE SMC Society Distinguished Lecturers Program

- Celebrity Lectures Program
 - Imre J. Rudas, VP Membership and Student Activities

IEEE Women in Engineering:

- Maria Pia Fanti, Representative, IEEE Women in Engineering



SMC Society Statistics: August 2015

- IEEE Higher Grade Members (including GSM): 4,157
- IEEE Student Members: 159
- Society Affiliates: 38
- Society Totals (with affiliates): 4,354
- Society Totals (without affiliates): 4,316

* GSM: Graduate Student Members



Benefits to SMC Members in 2016

In 2016, SMC Society members will receive:

- **Print, electronic, and digital access** to IEEE Systems, Man, and Cybernetics Magazine
- **Electronic access** to:
 - IEEE Transactions on Systems, Man, and Cybernetics: Systems,
 - IEEE Transactions on Cybernetics,
 - IEEE Transactions on Human-Machine Systems,
 - IEEE Transactions on Computational Social Systems, and
 - IEEE RFID Virtual Journal
- **Electronic access** to IEEE Systems, Man, and Cybernetics Society Digital Library



Membership and Student Activities

Recently approved Chapters:

- IEEE **Kitchener-Waterloo** Section Social Implications of Technology and Systems, Man, and Cybernetics Joint Societies Chapter
- Change the Japan Council Systems, Man, and Cybernetics Society Chapter to the **Tokyo/Sapporo/Sendai/Shin-etsu/Nagoya/Kansai/Shikoku/Fukuoka** Systems, Man, and Cybernetics Society Joint Sections Chapter
- IEEE **Victorian** Section Systems, Man, and Cybernetics Society Chapter
- IEEE **Queretaro** Section Systems, Man, and Cybernetics Society Chapter



Membership and Student Activities

Newly approved Chapters:

- IEEE **Tokyo/Japan** Joint Sections Systems, Man, and Cybernetics Society Chapter
- IEEE **Portugal** Section Systems, Man, and Cybernetics Society Chapter
- IEEE **Romania** Section Systems, Man, and Cybernetics Society Chapter



Membership and Student Activities

Newly approved Student Branch Chapters:

- **University of Cagliari** Systems, Man, and Cybernetics Society Student Branch Chapter in the Italy Section
- **University of Technology - Sydney** Systems, Man, and Cybernetics Society Student Branch in the New South Wales Section
- **Simon Fraser University** Systems, Man, and Cybernetics Society Student Branch Chapter in the Vancouver Section
- **Obuda University** Systems, Man, and Cybernetics Society Student Branch Chapter in the Hungary Section
- **Benemerita Univ Autonoma De Puebla** Systems, Man, and Cybernetics Society Student Branch Chapter in the Puebla Section



Membership and Student Activities

In progress:

- IEEE **Serbia and Montenegro** Section Systems, Man, and Cybernetics Society Chapter
 - Enlisting volunteers
 - Signing the petition
 - Membership support
 - Benefits to members
 - SMC Society support

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