

# **What is the Engineering in Medicine and Biology Society ?**

# IEEE EMBS MISSION

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**The Engineering in Medicine and Biology Society of the IEEE advances the application of engineering sciences and technology to medicine and biology, promotes the profession, and provides global leadership for the benefit of its members and humanity by disseminating knowledge, setting standards, fostering professional development, and recognizing excellence.**

# IEEE EMBS

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- World's largest bioengineering society: ~8,000 members
- Membership in EMBS includes
  - The EMB Magazine
  - Large reductions in the subscriptions fees for all other EMBS publications
  - Reduced registration rates for the EMBS-sponsored conferences
  - Many resources and services, such as IEEE email and insurance
- A large number of chapters worldwide
  - 53 regular chapters, with many more coming on line
  - 57 student groups
- Support for local chapters and activities
  - Chapter Activities Fund: up to \$1,000 available
  - Distinguished Lecturer Program: up to \$1,000 available
- Awards and Member Recognition
  - Career Achievement, Service and Early Career Achievement Awards
  - Best Chapter Award
  - Outstanding Performance Award for the best student chapter/club
  - Student Paper and Design Competition Awards
  - Promotion to IEEE Fellows and Senior Members

# IEEE EMBS COVERAGE AREAS

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## ■ Diagnostic Systems

- Conventional systems
- Point-of-care diagnostics
- Imaging and other tests

## ■ Therapeutic Systems

- Neuromuscular devices
- Cardiovascular devices
- Cancer treatment
- Drug delivery
- Artificial tissues & organs:  
Silicon retina, cochlear, tactile  
sensors, nose, heart, ...

## ■ Healthcare and Bioinformation Systems

- MIS
- E-medicine
- D2H2
- Genomics, Proteomics, and  
Physiome
- Tools in drug discoveries

## ■ Technologies & Methodologies

- Biosignal Processing
- Biomedical Imaging: Molecular, X-rays, CT, MRI, PET, ultrasound and optical imaging
- Medical Instrumentation & Sensors
- MEMS and Nanotechnology
- Neural Engineering
- Rehabilitation Engineering
- Biorobotics
- Biosystems Modeling
- Computational bioengineering and bioinformatics

# EMBS PUBLICATIONS

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- IEEE Transactions on Biomedical Engineering (TBME)
- IEEE Engineering in Medicine and Biology (EMB) Magazine
- IEEE Transactions on Information Technology In Biomedicine (TITB)
- IEEE Transactions on Neural Systems and Rehabilitation Engineering (TNSRE)
- IEEE Transactions on Medical Imaging (TMI)
  - With IEEE NPS, SP and UFFC Societies
- IEEE Transactions on NanoBioscience (TNB)
  - With IEEE C, RA, CI and SMC Societies and NT Council
- IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB)
  - With IEEE C and CI Societies and ACM

# EMBS CONFERENCES

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- Annual International Conference of the IEEE Engineering in Medicine and Biology Society
  - 2005: Shanghai, China
  - 2006: New York, USA
  - 2007: Lyon, France
  - 2008: Vancouver, Canada
  - 2009: Minneapolis, USA
- IEEE EMBS Special Topics Conference (STC) on Microtechnologies in Medicine and Biology
- IEEE EMBS STC on Neural Engineering
- International Symposium on Biomedical Imaging (ISBI)
  - With IEEE SP Society
- International Conference on Biomedical Robotics and Biomechatronics
  - With IEEE RA Society
- Bio-, Micro-, and Nanosystems
  - With American Society for Microbiology

# EMBS SUMMER SCHOOLS

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- International Summer School on Biomedical Imaging
- International Summer School on Biomedical Signal Processing
- International Summer School on Biocomplexity
- International Summer School on Medical Devices and Biosensors

# IEEE EMBS LEADERSHIP

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- EMBS Members: ~8,000
- Administrative Committee (16 members) elected by members:
  - Asia Pacific: Peter Hunter, Kenji Sunagawa, Jyh-Horng Chen
  - Europe: Christopher James, Laura Roa, Christian Roux
  - Latin America: Joaquin Azpiroz-Leehan
  - Middle East & Africa: Ahmed Morsy
  - North America: Colin Brenan, Robert Munzner, Paul Benkeser, Zhi-Pei Liang, Craig Hartley, Elliot Sloane, Stephen Davies
  - Student Representative: Lisa Lazareck
- Executive Committee elected by Administrative Committee:
  - President: Yongmin Kim (2005-2006)
  - Past President: Roger Barr (2005)
  - President Elect: Donna Hudson (2006)
  - VP Publications: Bin He (2005-2006)
  - VP Conferences: Nigel Lovell (2004-2005), Zhi-Pei Liang (2006-2007)
  - VP Member and Student Activities: Barbara Oakley (2004-2005), Jorge Monzon (2006-2007)
  - VP Finances: Donna Hudson (2005), Craig Hartley (2006)

# **Engineering in Medicine and Biology Society Chapter**

# Chapter Aims

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- Bringer together professionals in Biomedical Engineering in the Benelux
  - get to know work of other local researcher and establish collaborations
  - create a platform to exchange ideas between industry and academia
  - discuss issues related to education
  - other
- B. Promote the profession
- C. Work together with existing organizations in the field of Biomedical Engineering to reach more people in the profession.

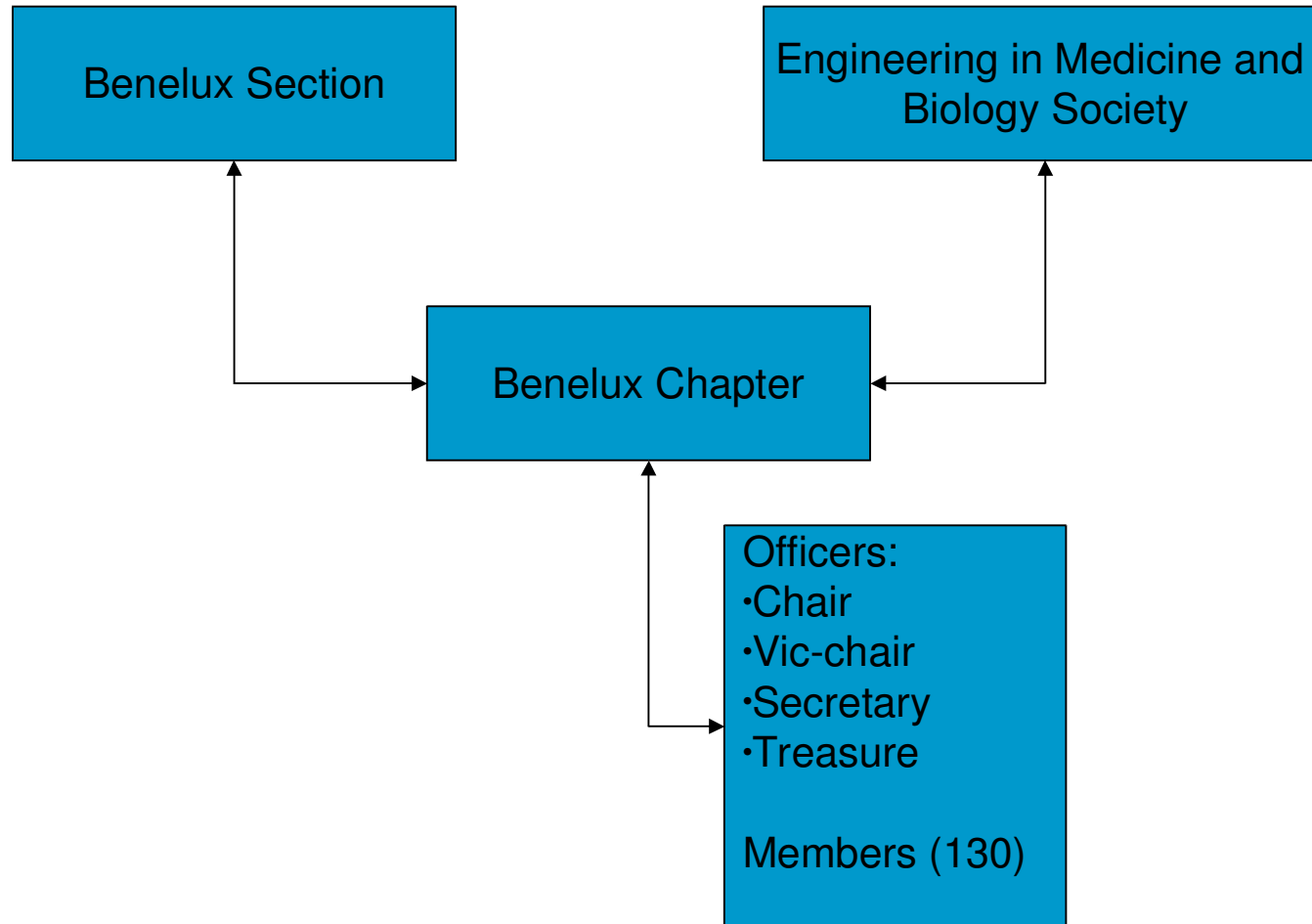
# Financial support for activities

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- EMB Society
  - Chapter activities funding program
  - Distinguished lectures program
  - The matching ratio is 2:1, with EMBS providing up to twice the amount raised from some other source up to 1000\$.
- IEEE Benelux Section
- Industry

# Chapter Organization

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# Chapter Obligations

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- Maintain a minimum of 2 Technical meetings each year
- Minimum of 10 members (OK)
- Report on
  - Meetings
  - Financial situation
  - Current officers