IEEE

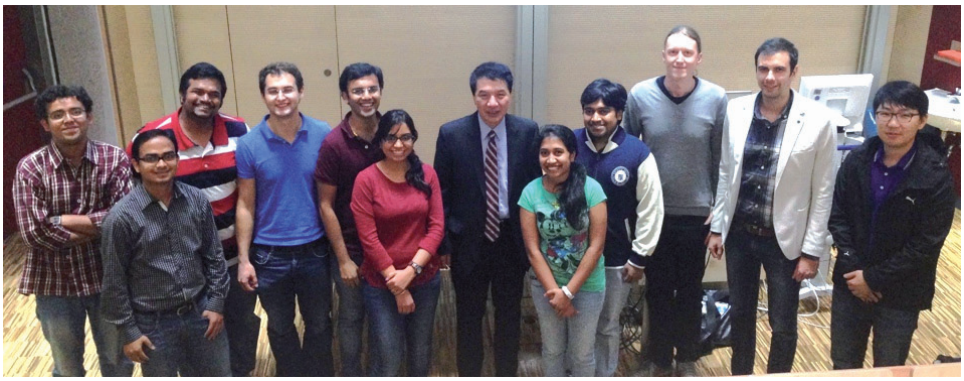
EMB

IEEE Engineering in Medicine and Biology Society

2015 *Awards*

http://embs.org/about-embs/awards-a-recognition

Best New Student Branch Chapter-Club



IEEE EMBS Student Chapter, Munich

The IEEE EMBS Student Chapter Munich was formed in May 2014 by a group of 8 IEEE student members and a faculty advisor. It responds to the need of creating an interest group for students in medical engineering and related disciplines in the Munich region and aims at creating links with the strong biomedical industrial network in Bavaria. Beyond being a professional network, it promotes the cultural exchange between members from many regions of the world.

The chapter presently has over 40 members from varied backgrounds of engineering, medicine, and basic sciences. Its board members and enthusiastic volunteers successfully organized several activities during its first year such as 4 DLP lectures, 3 field trips, 2 membership promotional events, and 1 panel discussion.

These efforts have encouraged other students to become IEEE and EMBS members and engage in local and international activities. Being registered as an "Eingetragener Verein" (e. V.) under German association law, the chapter acquired good visibility through its events, facebook page, and mailing lists. Based on these efforts, it has won the best New Chapter Award 2015.

Faculty Advisor: Dr. Benjamin Frisch (benjamin.frisch@tum.de)
Chair: Amit Shah (amit.shah@tum.de)
Vice-chair: Felix Achilles
Treasurer: Oliver Zettinig
Secretary: Yeshaswini Nagaraj
Vice-secretary: Cristina Precup

2015 EMBS Awards

Outstanding Student Branch Chapter-Club

IEEE EMBS Student Branch Chapter-Club, MSRIT
(Ramaiash Institute of Technology)

IEEE EMB MSRIT Student Chapter was established with a motive of providing an exposure to biomedical engineers to collaborate and work towards improving global health and enhance the quality of life. It has provided a platform for like-minded individuals to discern and find solutions to the various problems faced in the healthcare sector especially in a developing country like India. The Chapter has been highly appreciated for its quality of activities conducted and has become a name to reckon with especially in South India. The Chapter in its debut year has proven to be the most versatile by organizing workshops in all the major sub-fields within the Biomedical Engineering domain which has only encouraged others to be a part of this enthusiastic society. The chapter's associate club, EMB MSRIT student chapter joined hands in organizing various events and created a platform for the student community to share their technical knowledge and ideas. Workshops on research trends and applications of biomedical imaging , three days hands-on training on Signal and Image processing using open source software SCILAB , one day Hands-on training program on Medical Image processing using MATLAB.

MEDCOM 2014: International conference on Medical Imaging, m-health and emerging areas in communication systems one day workshop on 3D medical scanning DLP TALK: Dr Ravi Shankar, International Conference on Circuits, Control, Communications and Computing. The IEEE EMB Bangalore Chapter in association with EMB MSRIT Student Chapter have organized Distinguished Lecture Program Talk by Dr. Prashant K. Sharma and Dr. Dieter Lukoschus , IEEE Day Celebrations etc, have been the highlights of the Chapter. Last but not the least we organized a membership drive throughout our college and thus obtained the membership count of 50 plus.

Best New Chapter

IEEE EMBS Chapter, Quebec

The new Quebec EMBS Chapter has been very active since its recent creation by Dr. Benoit Gosselin in May 2014, promoting membership, education, and professional development in the Quebec area, as well as on the Campus of Université Laval.

The Chapter presents an excellent growth rate of 25%, with 7 new members after its formation in May 2014, for a total of 28 members to date. Its members are actively involved in different mentoring activities supporting student initiatives and design projects, like the ULAVAL SAE Project focusing on the design of an electrical car, and the Annual IEEE Student Competition of Electronics. The Chapter has a perfect balance with half of its members coming from the industry, and half from academia. Several engineers employed by companies of the Quebec area, which have commercial activities in various areas, such as biomedical technology, telecommunications, electronics, metrology, and optic/photonics, are regularly attending the Chapter's events.

The Chapter's members organized four seminars, two of which were given by Distinguished Lecturers presenting various hot topics related to engineering in life sciences and healthcare, such as Wireless biosensors (Sandro Carrara, EPFL), Circuits for brain-computer-interfaces (Mohamad Sawan, Polytechnique Montreal), Grasp neuroprosthesis (Christian Ethier, Northwestern University of Chicago) and Signal processing approaches for the detection and treatment of sleep apnea (Zahra Massouvi, University of Manitoba).

Outstanding Chapter

IEEE EMBS Chapter, Malaysia

2015 marks the second time the Malaysian Chapter bestowed with Outstanding Chapter Award. Sincere appreciation to the award committee for such honour. Building on the motto "Advancing Technology for Humanity", the chapter has earmarked various activities for different causes, from promoting biomedical engineering to humanitarian projects in Malaysia. We also cooperated with various regional EMBS chapters to foster cooperation in organization of various events.

In 2014, the chapter successfully organized two major events, the 2014 IEEE Conference on Biomedical Engineering and Sciences, and 2014 IEEE-EMBS International Student Conference (ISC 2014) which attracted numerous participants locally, and abroad. The ISC 2014 was successfully concluded with all EMBS student members receiving complimentary participation. The chapter also organized, and supported various student activities, workshops, and related activities to cater for different categories of members. We also assisted in the formation of the first EMBS Club in Sarawak in 2013.

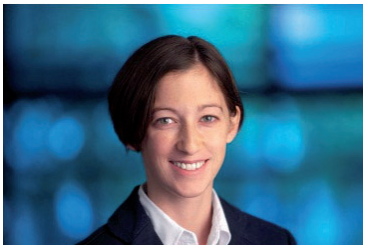
On member engagement and communication, the chapter also engaged members with utilization of various social media platforms to enable rapid dissemination of latest updates, and launched a new website platform in 2014.

Acknowledgments to all DLPs, corporate supporters, members, partners, and last but not least the amazing executive committee members, without these great supports it would be impossible for us to receive the award. With such recognition, the chapter will strive further to champion and promote biomedical engineering in Malaysia, and hopefully regionally.

The 2014 Committee

CHONG Yu Zheng
Siti Anom Ahmad
Darwin Gouwanda
Afaf Rozan Mohd Radzol
Norliza Mohd Noor
Nabilah Ibrahim
Aamir Saeed Malik
Wahidah Mansor
Alpha Agape Gopalai
Lee Yoot Khuan
Fatimah Ibrahim

Early Career Achievement Award



Danielle S. Bassett

For her pioneering and fundamental contributions to neural and systems engineering, including formalizing graph-based representations of neuroimaging data, characterizing human brain network architecture in health and disease, and discovering a network-based predictor of individual differences in human learning.

Danielle S. Bassett is the Skirkanich Assistant Professor of Innovation in the Department of Bioengineering at the University of Pennsylvania. She is most well-known for her work blending neural and systems engineering to identify fundamental mechanisms of cognition and disease in human brain networks. She received a B.S. in physics from the Pennsylvania State University and a Ph.D. in physics from the University of Cambridge, UK. Following a postdoctoral position in the Complex Systems Group at the University of California Santa Barbara, she was a Junior Research Fellow at the Sage Center for the Study of the Mind. In 2012, she was named American Psychological Association's `Rising Star' and given a Alumni Achievement Award from the Schreyer Honors College at Pennsylvania State University for extraordinary achievement under the age of 35. In 2014, she was named an Alfred P Sloan Research Fellow and received the MacArthur Fellow Genius Grant. She is the founding director of the Penn Network Visualization Program, a combined undergraduate art internship and K-12 outreach program bridging network science and the visual arts. Her work has been supported by the National Science Foundation, the National Institutes of Health, the Army Research Office, the Army Research Laboratory, the Alfred P Sloan Foundation, the John D and Catherine T MacArthur Foundation, and the University of Pennsylvania. She lives with her husband and two sons in Wallingford, Pennsylvania.

EMBS Academic Career Achievement Award

Bin He

For significant contributions to neuroengineering research and education

Bin He is Distinguished McKnight University Professor of Biomedical Engineering, Medtronic-Bakken Endowed Chair for Engineering in Medicine, and director of Institute for Engineering in Medicine at the University of Minnesota, Twin Cities. Dr. He has made significant research contributions to the fields of neuroengineering and functional biomedical imaging. He has made multiple significant original contributions to biomedical engineering research, including brain electric source imaging, multimodal neuroimaging, functional connectivity mapping, and brain computer interface. Dr. He has published over 210 peer-reviewed scientific articles in leading international journals, and delivered over 200 keynote, plenary, invited talks and seminars in international conferences and institutions. He is the sole editor of textbook "Neural Engineering" (1st ed, 2005; 2nd ed, 2013). Dr. He's research has been featured in various media including Nature, New York Times, BBC, CNN, NBC, CBS, ABC News, Fox News, CCTV, Scientific American, and Economist.

Recognizing his accomplishments, Dr. He has been awarded the Academic Career Achievement Award from the IEEE Engineering in Medicine and Biology Society, the Established Investigator Award from the American Heart Association, the CAREER Award from the U.S. National Science Foundation, the Distinguished McKnight University Professorship from the University of Minnesota, the University Scholar Award from the University of Illinois while he was on faculty, and the Outstanding Research Award from the International Federation of Clinical Neurophysiology.

Dr. He served as a Past President of the IEEE Engineering in Medicine and Biology Society (09-10), and was recently elected as Chair-Elect of the International Academy of Medical and Biological Engineering for 2015-2018. He is a Member of the NIH BRAIN Multi-Council Working Group and is the Editor-in-Chief of IEEE Transactions on Biomedical Engineering.

EMBS Distinguished Service Award

Zhi-Pei Liang

For outstanding service to EMBS and the field of biomedical engineering

Zhi-Pei Liang received his Ph.D. degree in Biomedical Engineering from Case Western Reserve University in 1989. He subsequently joined the University of Illinois at Urbana-Champaign (UIUC) first as a postdoctoral fellow (with the late Nobel Laureate Paul Lauterbur), and then as a faculty member in the Electrical and Computer Engineering Department. He is currently the Franklin W. Professor of Electrical and Computer Engineering and Co-chair of the Integrative Imaging Theme of the Beckman Institute for Advanced Science and Technology.

Dr. Liang's research covers magnetic resonance imaging and spectroscopy, image formation theory, algorithms, and biomedical applications. Research from his group has been recognized by a number of prestigious awards, including the Sylvia Sorkin Greenfield Award (Medical Physics, 1990), an NSF CAREER Award (1995), the University Scholar Award from UIUC (2001), the Isidor I. Rabi Award from the Int'l Society of Magnetic Resonance in Medicine (2009), IEEE-ISBI Best Student Paper Awards (2010, 2015), the IEEE-EMBC Best Student Paper Awards (2010, 2011), the Otto Schmitt Award from the Int'l Federation for Medical and Biological Engineering (2012), and the Technical Achievement Award from the IEEE Engineering in Medicine and Biology Society (2014). Dr. Liang is a Fellow of AIMBE (2005), IEEE (2006), ISMRM (2010), and the International Academy of Medical and Biological Engineering (2012). He served as President of IEEE Engineering in Medicine and Biology Society from 2011-2012.

2015 EMBS Awards

Technical Field Award

Nigel Lovell

For world class contributions to research, clinical trialing, and commercialization of medical device technologies and wearable sensors including visual prostheses, telehealth systems and ambulatory falls monitors

Nigel Lovell is currently at the Graduate School of Biomedical Engineering University of New South Wales (UNSW), Sydney where he holds a position of Scientia Professor. He has authored 200+ refereed journals and 250+ conference proceedings, and been awarded over $80 million in R&D and infrastructure funding. He is a Fellow of five learned societies throughout the world (ATSE, Engineers Australia, IEEE, FIP and AIMBE). His research work has covered areas of expertise ranging from biomathematical modeling, telehealth technologies, biological signal processing, and visual prosthesis design. Over the past two decades he has served in various roles on the IEEE including VP for Conferences and Members of the EMBS and three times has served as program chair/co-chair for the EMBS Annual International Conference.

Technical Field Award

Russell H. Taylor

For contributions and leadership in the field of medical robotics

Russell H. Taylor has over 38 years of professional experience in the fields of computer science, robotics, and computer-integrated interventional medicine. He received a Bachelor of Engineering Science degree from Johns Hopkins University in 1970 and a Ph.D. in Computer Science from Stanford University in 1976. He joined IBM Research in 1976, where he developed the AML robot language and managed the Automation Technology Department and (later) the Computer-Assisted Surgery Group before moving in 1995 to Johns Hopkins, where he is the John C. Malone Professor of Computer Science with joint appointments in Mechanical Engineering, Radiology, and Surgery. Dr. Taylor is also Director of the Engineering Research Center for Computer-Integrated Surgical Systems and Technology (CISST ERC) and of the Laboratory for Computational Sensing and Robotics (LCSR). Dr. Taylor's research interests include robotics, human-machine cooperative systems, medical imaging & modeling, and computer-integrated interventional systems. He is the author of over 375 peer-reviewed publications and book chapters, a Fellow of the IEEE, of the AIMBE, of the MICCAI Society, and of the Engineering School of the University of Tokyo. He is also a recipient of numerous awards, including the IEEE Robotics Pioneer Award, the MICCAI Society Enduring Impact Award, and the Maurice Müller Award for Excellence in Computer-Assisted Orthopaedic Surgery.

William J Morlock Award

Matthew O'Donnell, Ph.D.

For seminal contributions to real-time adaptive array processing, ultrasonic speckle tracking, elasticity imaging of soft tissues, MRI angiography, and acousto-optic transduction, all having direct clinical implications and improving healthcare

Following undergraduate, graduate, and post-doctoral training at Notre Dame and Washington University in St. Louis, Dr. O'Donnell joined General Electric Corporate Research and Development Center in Schenectady, NY in 1980, where he worked on medical electronics, including MRI and ultrasound imaging systems. In 1990, he moved to University of Michigan in Ann Arbor, MI where he held appointments in Electrical Engineering & Computer Science and in Biomedical Engineering. In 1998, he was named the Jerry W. and Carol L. Levin Professor of Engineering. From 1999-2006, he also served as Chair of the Biomedical Engineering Department. In 2006 he moved to the University of Washington in Seattle, WA where he was the Frank and Julie Jungers Dean of Engineering from 2006-2012. He is now Frank and Julie Jungers Dean Emeritus and a Professor of Bioengineering at the University of Washington. His most recent research has explored new imaging modalities, including elasticity imaging, in vivo microscopy, optoacoustic arrays, photoacoustic contrast agents for molecular imaging and therapy, thermal strain imaging, and catheter-based devices. He has won numerous awards, including the Distinguished Alumni Award from the University of Notre Dame and the Achievement Award from the IEEE Ultrasonics, Ferroelectric, and Frequency Control Society. He is a fellow of the IEEE and AIMBE and is a member of the Washington State Academy of Sciences and the National Academy of Engineering.

2015 EMBS Awards

Newly Elected Fellows

Ewert Bengtsson, Uppsala University
for contributions to quantitative microscopy and biomedical image analysis

Olga Boric-Lubecke, University of Hawaii at Manoa
for contributions to biomedical microwave technology

Purnendu Dasgupta, University of Texas at Arlington
for contributions to ion chromatography and analytical instrumentation for environmental studies

Jeffrey Duerk, Case Western Reserve University
for contributions to rapid magnetic resonance imaging technologies

Randy Ellis, Queen's University
for contributions to image guided surgical technology

Alan Finkel, Monash University
for contributions to measurement technology for biomedicine

Richard Jones, New Zealand Brain Research Institute
for contributions to human performance engineering and neurorehabilitation

Tzyy-Ping Jung, University of California, San Diego
for contributions to blind source separation for biomedical applications

Edmund Lam, University of Hong Kong
for contributions to modeling and computational algorithms in imaging applications

Stefan Mozar, Dynexsys Pty Ltd.
for development of safety solutions for electronic equipment

Yu Sun, University of Toronto
for contributions to automated manipulation of biological cells

John Vaughan, University of Minnesota
for contributions to high-field magnetic resonance imaging technology

Blake Wilson, Duke University
for development of cochlear implants

Bulent Yener, Rensselaer Polytechnic Institute (RPI)
for contributions to network design optimization and security

IEEE Biomedical Engineering Award

Christofer Toumazou

For outstanding contributions to biomedical circuit technology

Sponsored by the IEEE Engineering in Medicine and Biology Society, IEEE Circuits and Systems Society, and IEEE Computational Intelligence Society

A visionary leader in the field of biomedical circuits and systems, Christofer Toumazou's groundbreaking contributions to the design, implementation, and clinical application of integrated microchip technology solutions for intelligent diagnostics and therapy have transformed medical practice. In 2001, Dr. Toumazou developed semiconductor genomic sequencing. Other achievements include cochlear implants for children born deaf, an artificial pancreas for type 1 diabetics, wireless heart monitors for personalized ambulatory care, semiconductor-based DNA sequencing, and an intelligent neural stimulator as a drug alternative for obesity. In 1994, Dr. Toumazou became the youngest professor to be appointed at Imperial College London.

An IEEE Fellow, Dr. Toumazou is founder and Chief Scientist of the Institute of Biomedical Engineering, Imperial College London and founder of three successful healthcare companies (Toumaz, DNA Electronics, and GENEU).

IEEE Medal For Innovations In Healthcare Technology

Takuo Aoyagi

For pioneering contributions to pulse oximetry that have had a profound impact on healthcare

Sponsored by the IEEE Engineering in Medicine and Biology Society

Takuo Aoyagi's development of the fundamental principles of pulse oximetry has led to an indispensable clinical tool for noninvasive monitoring of blood oxygen levels that has improved patient safety during anesthesia and practically all other facets of healthcare. In 1972, while investigating a noninvasive cardiac output device, Dr. Aoyagi discovered that arterial pulsatile "noise" interfering with the accurate dye dilution curve carried important information about the oxygenation of arterial blood. This led him to establish the principle of pulse oximetry using light signals of two different wavelengths. Based on his discovery, in 1975 he introduced the first commercially available pulse oximeter. Consisting of a probe containing a light-emitting device and two photodetectors, Dr. Aoyagi's pulse oximeter could pass two wavelengths of light through the earlobe to the photodetectors to measure the changing absorbance at each of the wavelengths based on pulsing arterial blood. The device's ability to rapidly and noninvasively assess the hemodynamic and respiratory condition of patients allows clinicians to detect abnormalities earlier and avoid patient harm as well as gauge the effectiveness of clinical interventions in real time. All of today's pulse oximeters are based on Dr. Aoyagi's original principles of pulse oximetry. Dr. Aoyagi has continued to advance the development of oxygen monitoring technologies and inspire generations of medical technology innovators around the world. Pulse oximetry is now considered the standard of care for patients undergoing anesthesia and for treatment in emergency rooms and intensive care units and for home care. In 2007, the World Health Organization included pulse oximetry as an essential component of its Surgical Safety Checklist for reducing complications.

An IEEE Member and recipient of the Gravenstein Lifetime Achievement Award from the Society for Technology in Anesthesia (2013), Dr. Aoyagi is currently senior manager of the Aoyagi Research Laboratory at Nihon Kohden Corporation, Nakano-ku, Tokyo, Japan.

2015 EMBS Awards

2014 EMBC Student Paper Competition Award Recipients

First Place

Temiloluwa Olubanjo

Georgia Institute of Technology, USA

Tracheal Activity Recognition Based on Acoustic Signals

Second Place

Jiaen Liu

University of Minnesota, USA

Gradient-Based Magnetic Resonance Electrical Properties Imaging of Brain Tissues

Third Place

Hakan Töreyin

Georgia Institute of Technology, USA

A Low-Power, Time-Division-Multiplexed Vector Matrix-Multiplier for a Vestibular Prosthesis

2015 EMBS Awards

2015 EMBC Student Paper Competition Finalists

Geographic Finalists

North America:

Yuxiao Yang, University of Southern California

A Framework for Identification of Brain Network Dynamics Using a Novel Binary Noise Modulated Electrical Stimulation Pattern

Europe:

Eleonora Tamilia, Università Campus Bio Medico di Roma

An Automated System for Quantitative Analysis of Newborns' Oral-Motor Behavior and Coordination during Bottle Feeding

Asia-Pacific:

Utkarsh Jindal, International Institute of Information Technology, Hyderabad

Corticospinal Excitability Changes To Anodal tDCS Elucidated With NIRS-EEG Joint-imaging - An Ischemic Stroke Study

Middle East-Africa:

Khaled Sayed, Cairo University

Arrhythmia Classification Based On Novel Distance Series Transform Of Phase Space Trajectories

Latin America:

Lucas Massaroppe, University of Sao Paulo

Kernel-nonlinear-PDC extends Partial Directed Coherence to Detecting Nonlinear Causal Coupling

2015 EMBS Awards

2015 EMBC Student Paper Competition Finalists

Open Finalists

Hui-Ling Chan, National Chiao Tung University, Taiwan
Beamformer-based Imaging of Phase-Amplitude Coupling using Electromagnetic Brain Activity

Christopher Cline, University of Minnesota
Subject-Specific Optimization of Channel Currents for Multichannel Transcranial Magnetic Stimulation

Siavash Ghaffari, McGill University
Effect of In Vivo Flow Dynamics On Angiogenesis By Computational Modeling

Javier Hernandez, Massachusetts Institute of Technology
BioPhone: Physiology Monitoring from Peripheral Smartphone Motions

Christopher Cline, University of Minnesota
Subject-Specific Optimization of Channel Currents for Multichannel Transcranial Magnetic Stimulation

Siavash Ghaffari, McGill University
Effect of In Vivo Flow Dynamics On Angiogenesis By Computational Modeling

Javier Hernandez, Massachusetts Institute of Technology
BioPhone: Physiology Monitoring from Peripheral Smartphone Motions

Daniel Oloumi, University of Alberta
Breast Tumor Detection Using UWB Circular-SAR Tomographic Microwave Imaging

Julie Oziat, CEA
Electrochemistry Provides A Simple Way To Monitor Pseudomonas Aeruginosa Metabolites

Amanda Shultz, Vanderbilt University
Walking on Uneven Terrain with a Powered Ankle Prosthesis: A Preliminary Assessment

Quang N. Vo, University of Alberta
3D Ultrasound Imaging Method to Assess the True Spinal Deformity

Mark Patrick Zapf, University of New South Wales
Assistive Peripheral Prosthetic Vision Aids Perception and Mobility in Outdoor Environments: A Simulation Study

Xinran Zhang, Tsinghua University
A High-Accuracy Surgical Augmented Reality System Using Enhanced Integral Videography Image Overlay

Past Award Recipients

William J. Morlock Award

2011: Yongmin Kim
2009: Luke Lee
1979: Robert Plonsey
1974: Dean L. Franklin
1973: Donald F. Childers
1968: Wilson Greatbatch
1967: Herman Schwan
1963: Otto Schmitt
1961: Britton Chance
1956: Edward F. MacNichol

Early Career Achievement Award

2014: Qi Wang
2013: Muhammad H. Zaman
2012: Utkan Demirci
2011: Jose M. Carmena
2010: Dario Farina
2009: Silvestro Micera
2008: Ali Khademhosseini
2007: Tejal Desai
2006: Alejandro Frangi
2005: Stephen Boppart
2004: Susan Hagness
2003: Paolo Vicini
2002: Dorin Panescu
2001: David Beebe
2000: James Collins
1999: Zhi-Pei Liang
1997: Metin Akay
1996: Joan E. Sanders
1995: Atam P. Dhawan
1993: Rory A. Cooper
1992: Yitzhak Mendelson
1991: Blake Hannaford
1990: Janie M. Fouke
1988: Yongmin Kim
1986: George V. Kondraske

Past Award Recipients

Academic Career Achievement Awards

2003: Ante Santic
2002: Willis J. Tompkins
2001: John G. Webster
2000: Max Schaldach
1999: Fernand A. Roberge
1997: J. Lawrence Katz
1996: Max E. Valentinuzzi
1995: Floyd Dunn
1994: Wilson Greatbatch
1993: John M. Reid
1992: Edwin L. Carstensen

2014: Max A. Viergever
2013: Theodore W. Berger
2012: Peter Hunter
2011: K. Kirk Shung
2010: Robert S. Langer
2009: Sergio Cerutti
2008: Roger Barr
2007: Jose Principe
2006: Jean-Louis Coatrieux
2005: Ewart Carson
2004: Michael R. Neuman

Professional Career Achievement Awards

2012: Reese S. Terry, Jr.
2011: Rahul Mehra
2010: Mark Kroll
2009: Dorin Panescu

Past Award Recipients

Distinguished Service Award

2014: Bin He
2013: Donna Hudson
2011: Maximus A. Viergever
2010: Yongmin Kim
2009: John W. Clark Jr.
2008: Henrietta Galiana
2007: Nathalie Gosset
2006: Yuan-Ting Zhang
2005: Jose Principe
2004: John Enderle
2003: Christian Roux
2002: Swamy Laxminarayan
2001: Metin Akay
2000: Jack Iverson
1999: Jean–Louis Coatrieux
1998: Susan M. Blanchard
1996: Michael R. Neuman
1995: Charles Robinson
1994: Barry Feinberg
1993: Eli Fromme
1992: Swamy Laxminarayan
1990: Alvin Wald
1983: Eli Fromme

Technical Field Awards

2014: Brian T. Cunningham
2014: Zhi-Pei Liang
2013: Nicolas Chbat
2013: Ali Khademhosseini
2012: Rashid Bashir
2011: Michael Unser
2011: Lihong Wang
2010: Xiaochuan Pan
2010: Kenji Sunagawa
2010: Nitish Thakor

The IEEE Engineering in Medicine and Biology Society 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.

The field of interest of the IEEE Engineering in Medicine and Biology Society is the application of the concepts and methods of the physical and engineering sciences in biology and medicine. This covers a very broad spectrum ranging from formalized mathematical theory through experimental science and technological development to practical clinical applications. It includes support of scientific, technological and educational activities.

PUBLICATIONS

IEEE PULSE: A Magazine of the IEEE Engineering in Medicine and Biology Society
Transactions on Biomedical Engineering
Journal of Biomedical and Health Informatics
Life Sciences Letters
Transactions on Neural Systems and Rehabilitation Engineering
Transactions on Medical Imaging
Transactions on NanoBioscience
Transactions on Computational Biology and Bioinformatics
Transactions on Computational Imaging
Transactions on Biomedical Circuits and Systems
Reviews on Biomedical Engineering
Journal on Translational Engineering in Health & Medicine

ELECTRONIC PRODUCTS

EMBS Electronic Resource

CONFERENCES

Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)
IEEE EMBS Special Topic Conference on Neural Engineering (NER)
International Symposium on Biomedical Imaging (ISBI)
International Conference on Biomedical Robotics and Biomechatronics (BIOROB)
International Conference on Rehabilitation Robotics (ICORR)
Healthcare Innovation and Point-Of-Care Healthcare Technologies Conference (HICPT)
EMBS Micro and Nanotechnology in Medicine (MNM)
Grand Challenges Conference Series (GCBE)
IEEE EMBS International Conference on Biomedical and Health Informatics (BHI)
IEEE EMBS Student Conferences: For Students, By Students

SUMMER SCHOOLS sponsored by EMBS

International Summer School on Biomedical Imaging
International Summer School on Biomedical Signal Processing
International Summer School on Biocomplexity
International Summer School on Information Technology in Biomedicine
International Summer School on Emerging Technologies and Applications in Telemedicine: Addressing the Challenges of Chronic Disease Management
International Summer School on Neural Engineering (ISSNE)

IEEE Engineering in Medicine and Biology Society

445 Hoes Lane, Piscataway, NJ 08854
Telephone: +1 732 981 3433
Fax: +1 732 465 6435
Email: emb-exec@ieee.org

www.embs.org