



Ichiro Sakuma, PhD

Position nominated for:
AC member

*Affiliated Society &
Position*
Japanese Society for
Medical and Biological
Engineering
Board member

*Primary Job title &
Organisation*
Professor, School of Eng.,
The Univ. of Tokyo, Japan

Professional Achievement

Dr. Sakuma has contributed significant biomedical research to the field of computer aided surgery, medical robotics, assist circulation, medical instrumentation and studies on arrhythmia.

- He proposed a pivot bearing supported centrifugal blood pump
- He investigated effects of high intensity Electric shock on electro-physiological properties on cardiac myocyte though both experimental and computer simulation approaches.
- He firstly applied high intensity blue LED illumination to optical mapping for membrane action potential measurement of a rabbit heart and has been applying the method in basic arrhythmia studies.
- He conducted extensive research on surgical robotics. He contributed in development of a surgical robot firstly commercialized in Japan.
- He also conducted fusion of biomedical instrumentation and medical robotics.

Societal Contribution

- JSMBE President (2014 –2016)
- JSMBE Board (2018 –2022, 2013-2017, etc.)
- IFMBE Asian Pacific Working Group Chair(2010-
- Editorial Board, IEEE Trans. Biomed. Eng.
- Deputy Director for Medical Device, Center for Product Evaluation, Pharmaceutical and Medical Device Agency (PMDA)

Honours and Awards

- Fellow, IAMBE (2016)
- Fellow, Robotic Society of Japan (2015)
- Fellow, Japanese Society of Mechanical Engineers (JSME) (2006)
- Funai Award of JSME(2006)
- Best Paper Award, JSMBE(2018)
- Best Paper Award, Robotic Society of Japan(2010,2015)
- Young Investigator Award, Internal Society for Rotary Blood Pump...