POINT-OF-CARE HEALTHCARE

Bangalore, India
2013

IEEE EMBS Special Topic Conference on
Point-of-Care Healthcare Technologies
January 16-18, 2013, Sheraton Bangalore at Brigade Gateway
Bangalore, India
http://pocht.embs.org/2013/

IEEE EMB

Synergy Towards Better Global Healthcare

Announcement

IEEE Engineering in Medicine and Biology Society is pleased to announce the IEEE-EMBS Special Topic Conference on Point-Of-Care (POC) Healthcare Technologies that will focus on innovation, research, technology development and best practices in deployment of health monitoring technologies in developing and developed economies for better global healthcare. The conference will feature research presentations and technology panel discussions and forums on recent technological advances and global issues on implementation of POC technologies. Though the challenges of providing high-quality healthcare in developing countries are different than those in developed countries, there is a common goal to provide access to health monitoring and assessment technologies to people with limited or no healthcare facilities. While the developed countries may find POC technologies as effective means for reducing healthcare costs and improving efficiency, POC technologies are critical in responding to essential healthcare needs in countries with large populations or rural areas. The developing countries in the eastern part of the globe accounting for more than 2/3rd of the population of the world face the basic challenge of providing minimal healthcare to all people living in adverse geographical or economic constraints, and also monitoring critical diseases and infections such as HIV/AIDS, TB, malaria, etc. The challenge becomes even more critical in the situation of potential outbreak of an epidemic. The proposed conference will provide an international forum to explore POC health monitoring technologies that could play significantly important role mode in "well-being" of a healthy society with increasing proportion of elderly people.

The conference will provide a unique global networking opportunity with leading researchers, students medical and industry professionals, and policy makers in innovative healthcare technologies.

Organizing Committees:

Conference Chairs:

Chair: Atam P. Dhawan, Ph.D.
Distinguished Professor and Interim Dean
NJIT, USA
Co-Chair: Manju Mahadevappa, Ph.D.
Asst. Professor, SMST, IIT Kharagpur, India

Program Chairs:

Chair: P K Dutta, Ph.D. ,Professor and Head SMST, IIT Kharagpur, India
Co-Chair: Metin Akay, Ph.D., Chair, Biomedical Engineering, University of Houston, USA

International Program Chairs:

Chair: Nitish Thakor Ph.D., Professor Biomedical Engineering, Johns Hopkins University, USA
Co-Chair: Gudrun Zahlmann, Manager, Imaging Infrastructure, ROCHE, Switzerland

Local Organizing Committee Chair:

Jayanta Mukherjee Ph.D., Professor and Head, Computer Science & Engineering, IIT Kharagpur, India

Plenary and Keynote Speakers

Roderic Pettigrew, M.D., Ph.D., Director, National Institute of Biomedical Imaging and Bioengineering, NIH, USA
Nigel Lovell, Ph.D., Professor, University of New South Wales, Sydney, Australia
Balram Bhargava, M.D., Professor AIIMS, Stanford-India Biodesign Program, India
Anurag Mairal, Ph.D., Director Global Exchange Stanford-India Biodesign Program, USA and Executive VP, Orbees Medical, India
Y.T. Zhang, Ph.D., Professor at CUHK, & Director, Key Lab for Health Informatics of Chinese Academy of Sciences (HICAS),China
Shuming Nie, Ph.D., Distinguished Faculty Chair Professor & Director, Emory-Georgia Tech Cancer Nanotechnology Center, USA
May D. Wang, Ph.D., Associate Professor, Georgia Institute of Technology and Emory University School of Medicine, USA
Kenji Sunagawa, M.D., Ph.D., Professor and Chief, Cardiovascular Medicine at the Kyushu University Hospital, Japan.
Soumyadipta Acharya, M.D., MSE, Ph.D., Director, Bioengineering Innovation and Design, John Hopkins University, USA
Semahat Demir, Ph.D., Program Director, Biomedical Engineering Program, National Science Foundation, USA
Paolo Bonato, Ph.D., Director Motion Analysis Laboratory, Physical Medicine & Rehab Department, Harvard Medical School, USA

Important Dates:

Website opens for submissions of manuscripts for 4-page papers and poster presentations: July 15, 2012
Website closes for regular (4-page) manuscript submissions: September 15, 2012;
1-page late-breaking papers on POCHT clinical studies and trials for poster presentations: September 25, 2012
Notification of acceptance: November 1, 2012 (authors of accepted papers must register for the conference by Nov 15)
Final submissions due on: November 15, 2012
Industry exhibits proposals: November 1, 2012

Conference Themes and Topics of Interest

The conference will cover a broad spectrum of POC healthcare technologies including sensor technologies, biomarkers, system integration, mHealth, eHealth, health monitoring and informatics, POC decision support system and compliance issues related to affordable global healthcare with the following themes and topics, but not limited to:

Theme 1: Point of Care Sensor Technologies
- Smart sensors for health monitoring
- Wearable sensors
- Biomarkers
- Sensor reliability, long-term stability and biocompatibility
- Body Sensor Networks

Theme 2: Wireless Computing for POC Healthcare
- Wireless computing, communication and networking in POC healthcare
- Wearable and wireless devices in pervasive healthcare
- Wireless sensor and medical device control
- Multi-network and device management
- Safe, effective, secure and reliable use of wireless technology in healthcare

Theme 3: POC Health Informatics and Monitoring Technologies
- mHealth
- Sensor-device integration and data collection
- Multi-sensor data fusion and analysis
- POC health informatics and decision support systems
- Personalized medcine

Theme 4: Global Issues in POC Healthcare
- Patient monitoring and care in diverse environment
- Mass screening of critical diseases-specific diagnostic/prognostic variables
- Critical challenges in remote diagnosis and patient management
- Affordable global healthcare

Tentative Program:

January 16, 2013: Plenary Presentations; Invited Keynote Talks, and Panel Discussion; Opening Ceremony and Banquet
January 17, 2013: Selected Oral Platform Presentations; Poster Sessions and Industry Networking Forums.
January 18, 2013: Selected Oral Platform Presentations; Poster Session; Interactive Breakout Sessions; and Plenary Panel Discussion Closing Ceremony and Banquet

Venue: City of Bangalore, India

Bangalore (Bengaluru), the capital of the state of Karnataka is India's fifth largest and fastest growing cosmopolitan city in Asia. It is also called India's Silicon Valley as it houses the major high tech industries in India and is one of the largest biotechnology hubs in the country. Bangalore's Rs 63,800 crore (US$12.12 billion) economy (2008–09 Net District Income) makes it one of the major economic centers in India, with the value of city's exports more than (US$10 billion) in 2009. With an economic growth of 10.3%, Bangalore is the fastest growing major metropolis in India, and is also the country's fourth largest fast moving consumer goods (FMCG) market.

Bangalore, known as the garden city of India, is a gateway to southern India. The city's major tourist attractions include The Fort, Tipu Sultan's Palace, Cubbon Park, Ulsoor Lake, Bangalore Palace, Lal Bagh Garden, Jawahar Lal Nehru Planetarium and various other attractions. Shoppers can stop on MG Road and do their shopping and after can find a number of pubs nearby. The city of palaces, temples, and gardens-Mysore is located at a distance of 135-km from Bangalore and is a 2-hour drive on the four lane Bangalore-Mysore highway. Bangalore experiences a tropical savanna climate with distinct wet and dry seasons. Due to its high elevation, Bangalore usually enjoys a more moderate climate throughout the year. The coolest month is January with an average low temperature of 15.1 °C (59.2 °F) and average high temperature of 27.0 °C (80.6 °F).

Government/Industry Sponsorship and Participation (Invited):

NIBIB, National Institutes of Health, USA
Department of Biotechnology, India
IBM
Siemens, India
Phillips, India
GE Medical Systems, India

Medtronic
TATA TCS
i2i Solutions
FORUS Health
IIT Kharagpur, India
IEEE EMBS KP Student Chapter

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