

# IEEE International Workshop on System Biology and Biomedical Systems- Devices, Circuits and Systems for Assistive and Preventive Care

Sponsored by IEEE Systems Council and IEEE Consumer Electronics Hong Kong Section

3-4 December, 2020



Following the success of the 1st Workshop in the series held on December 3-4, 2020 in Taichung, Taiwan. The 2nd IEEE International Workshop on System Biology and Biomedical Systems will again be sponsored by the IEEE Systems Council and the IEEE Consumer Electronics Society. The focus of this workshop is the system biology aspects of consumer healthcare devices, reliability, and optimization on assistive and preventive care solutions. The Workshop features outstanding speakers from Industry and the research community across the world. We invite you to attend and participate if you have an interest in healthcare technology or want to learn about critical applications, advanced technologies for biomedical systems and consumer healthcare, and practical aspects of Medical Devices and Testing. The Workshop also includes Panel Discussions with audience participation, and a roundtable Working Group aimed at future actions by the System Biology and Biomedical Systems Initiative to foster adaption and acceptance of Consumer Healthcare Applications.

## Important Dates

Paper submission: 31 July 2020  
Author notification: 15 September 2020  
Registration opens: 1 October 2020  
Tutorial proposals: 31 August 2020  
Industry demo: 31 August 2020

## Organizing Committee

General Chair: Bernard Fong, Providence University  
TPC Chair: K. F. Tsang, City University of Hong Kong  
Publicity Chair: C. K. Li, Alpha Positive Clinic.  
Local Liaison Chair: <Vacant>  
IEEE Consumer Electronics Magazine Co-ordinator: Robin Bradbeer (Editor)  
Finance Chair: Edward Cheung, Hong Kong Polytechnic University

## International Advisory Committee

Brooke Johnson                      Stephen Dukes                      Nirwan Ansari                      A. Fong                      Roger Oliva

## Workshop website:

<http://www.ieeesystemscouncil.org/pages/2nd-ieee-international-workshop-system-biology-and-biomedical-systems>

## Call For Papers

Recent advances in wearable health devices ranging from general consumer health monitors for daily activity tracking to sophisticated medical devices provide a platform for gathering vital information about a user in the event of an emergency. As healthcare service providers become increasingly reliant on intelligent and interconnected devices in every aspect of health support, critical reliability, data integrity and interoperability are important considerations that need to be thoroughly addressed. In addition to technical challenges, relevant social and economic issues also need to be solved for integrating these devices into the national health systems such that electronic patient record of individual users can be continuously updated.

This workshop focuses on the biomedical aspects of such consumer healthcare devices and medical systems. It will facilitate the exchange of research results and development in the areas of individual systems, biological businesses, applications, monitoring, measurements, prototyping and testbed development; social impact, public sector and clinical trials.

In this workshop, the following topics will be covered:

- Interoperability, backward and forward compatibility for legacy system integration as well as future trends
- Flexible deployment, self-cognizant devices and systems
- Resource management and system optimization
- Smart emergency support system
- Biosensing and biomaterials in consumer health applications

Selected papers can be considered for publication in the special section of IEEE Consumer Electronics Magazine. Authors of accepted papers are encouraged to contact Magazine Editor Robin Bradbeer <[rsbradbeer@gmail.com](mailto:rsbradbeer@gmail.com)> for details.

## Registration fee:

Author with accepted paper can apply for registration fee waiver at registration before August 31, 2020.

## Paper Submission:

Digest papers up to a maximum of 4 pages along with all enquiries should be submitted via email to:

[ieee.sbbs@gmail.com](mailto:ieee.sbbs@gmail.com)

All papers MUST be submitted using the standard IEEE Conference template available from:

[https://www.ieee.org/publications\\_standards/publications/conferences/2014\\_04\\_msw\\_a4\\_format.doc](https://www.ieee.org/publications_standards/publications/conferences/2014_04_msw_a4_format.doc)

## Venue:

Providence University, Shalu District, Taichung City, Taiwan

Directions can be found here: [https://www.polyu.edu.hk/web/en/visitors/getting\\_to\\_polyu/index.html](https://www.polyu.edu.hk/web/en/visitors/getting_to_polyu/index.html)

#### Accommodation:

The Workshop venue is conveniently situated near Taichung (RMQ) airport, the following are recommended hotels in central Taichung City that have direct point-to-point public buses to Providence University

1. Evergreen Laurel Hotel (Taichung) <https://www.evergreen-hotels.com/branch2/index.jsp?lang=en>
2. The Splendor Hotel Taichung <http://splendor-taichung.com.tw/>
3. Tempus Hotel <http://www.tempus.com.tw/>