"Circuits and Systems for Sustainable Development"

ISCAS 2024

Singapore | May 19-22, 2024
Resorts World Sentosa Convention Centre

75 YEARS — CAS — IEEE CIRCUITS AND SYSTEMS SOCIETY

Tutorial 2: Advanced Biomedical Imaging Technologies: Circuit Design and Techniques

This tutorial series provides a comprehensive exploration of four cutting-edge biomedical imaging technologies: radar and ultrasound, electrical impedance tomography, functional near-infrared spectroscopy, and magnetic resonance imaging. Delving into the heart of circuit design and imaging techniques, participants will gain invaluable expertise in harnessing these technologies for practical applications in healthcare and diagnostics. By the end of the tutorials, attendees will be equipped to drive innovation in the field, leading the way towards enhanced medical imaging and superior patient care.

Full Day Session:

Time	Session
08:30am to 10:00am:	Tutorial #1 (Radar and Ultrasound)
10:00am to 10:30am:	Tea Break
10:30am to 12:00pm:	Tutorial #2 (Electrical Impedance)
12:00pm to 01:00pm:	Lunch Break
01:00pm to 02:30pm:	Tutorial #3 (IR spectroscopy)
02.30pm to 03.00pm:	Tea Break
03.00pm to 04.30pm:	Tutorial #4 (Magnetic resonance imaging system)
04.30pm to 05.00pm:	Panel Discussion on Biomedical Imaging

Radar and Ultrasound Imaging
Yuanjin Zheng, Nanyang Technological University

Electrical Impedance Tomography (EIT)
Yongfu Li, Shanghai Jiao Tong University

Functional Near-Infrared Spectroscopy
Jian Zhao, Shanghai Jiao Tong University

Nuclear Magnetic Resonance (NMR)
Ka-Meng Lei, University of Macau

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