

# IET Circuits, Devices & Systems

## Call for Papers



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Editor-in-Chief: Professor Harry Ruda, University of Toronto, Canada

## Special Issue on: Intelligent and Reliable Circuits for Sustainable Electronics

The need for sustainable technologies has accelerated the development low power electronics and with it the evolution of advanced integrated circuit technologies adapted to system related power constraints.

Circuits developed and designed sustainably with low supply voltage characteristics should help to ensure longer life and improved reliability, which is important for implantable or wearable electronics and autonomous sensors. The micro and nano scale development of these circuit designs for sustainable and low power devices must meet the reliability needs for devices used in healthcare, automotive and communication domains

It is also essential to ensure that low power circuit design can keep up with the growing demands of digital electronic systems. Due to the increasing demands of automation in smart electronic devices, this must be kept in mind when developing for deep circuit integration with low power consumption.

Therefore, it is important to consider artificial intelligence applications when developing sustainable and reliable electronic devices and systems. Henceforth, this special issue is dedicated to showcase the design, development, and implementation of intelligent, sustainable, and reliable electronic circuits, devices, and systems.

Topics of interest include, but are not limited to:

- Novel theory, design, and applications of sustainable circuits
- Emerging trends in low-voltage and low-power circuit designs
- New implantable and wearable electronics
- Supply and energy harvesting circuit blocks
- Self-supplied and high-efficiency battery operated electronics systems
- Reliability of advanced circuit interconnections
- Design analysis and testbed for reliability and sustainability
- Design of fault-tolerant electronics systems
- Theory and simulation for sustainable electronics applications
- AI-driven intelligent circuit design and electronics
- Deep learning driven hardware and circuitry applications
- Reliability and sustainability assessment in disruptive circuit topologies

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### Guest Editors:

**Dr. D. Nirmal**  
Karunya Institute of Technology and Sciences.  
India.  
E: nirmaldphd@gmail.com

**Dr. Hui-Ming Wee**  
Chung Yuan Christian University  
Taiwan  
E: weehm@cycu.edu.tw

**Dr. Joy long-Zong Chen**  
Dayeh University  
Taiwan  
E: jchen@mail.dyu.edu.tw