

IEEE IoT Journal Special Issue on
Sustainable Solutions for the Internet of Things

An analysis of many IoT deployments showed that most of them can address the Sustainable Development Goals (SDG) and the UN's 2030 agenda. Interestingly, most of these projects concentrate on five SDGs: Industry, innovation, and infrastructure, Smart cities and communities, Affordable and clean energy, Good health and well-being, and Responsible production and consumption. Examples include a remote water-monitoring solution that ensures clean water in regions with an indigenous population, and smart lighting initiatives in Chinese cities that halve total power output.

This special issue aims at gathering the recent advances and novel contributions from academic researchers and industry practitioners in the novel area of sustainable solutions for the IoT, in order to fully leverage the potential capabilities and opportunities brought by this area. We devise five main technical directions for research to provide contributions to the development of sustainable services, namely: user integration, fog/cloud computing architectures, low power cooperative sensors, shared and open infrastructures deployment, and machine and deep learning.

- Big data and predictive analysis
- Blockchain technology for IoTs
- Cooperative and Compound Sensors
- Crowd-sensing, human-centric sensing
- Deployment and field testing
- e-Health, Assisted Living and e-Wellness
- Efficient resource allocation
- Engineering of frugal objects
- Ethics and IoT
- Fog/Edge computing and Caching techniques
- Human Role in the IoT, Social Aspects and Services
- Innovative routing and scheduling protocols
- IoT for developing countries
- Lightweight security design
- Low cost or energy harvesting wireless communication and system design
- Machine Learning Accelerators for IoT & Big Data
- Rural areas connectivity solutions
- Secure and privacy preserving IoT communications
- Smart Agriculture and Water Management
- Smart Grid, Energy Management
- Smart sensory augmentation and smart spaces
- TinyML systems and application
- Ultra-low-power IoT Technologies and Embedded Systems Architectures
- Urban Dynamics and crowdsourcing services
- Virtualization: Multiple sensors aggregated, or a sensor shared by multiple users

Important Dates

Submission Deadline:	April 15, 2021	Second Review Due/Notification:	Sept. 15, 2021
First Review Due:	June 30, 2021	Final Manuscript Due:	Sept. 30, 2021
Revision Due:	August 15, 2021	Publication Date:	2021

Submission Format and Guideline

All submitted papers must be clearly written in excellent English and contain only original work, which has not been published by or is currently under review for any other journal or conference. Author guidelines and submission information can be found at <http://iot.ieee.org/journal>. All manuscripts and any supplementary material should be submitted through IEEE Manuscript Central, <http://mc.manuscriptcentral.com/iot>. The authors must select as "SI: Sustainable Solutions for the Internet of Things" when they reach the "Article Type" step in the submission process.

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