



## Big Data, Blockchain and IoT in Energy Management for Sustainable Development

Guest Editors:

**Prof. Dr. Adela Bara**

Department of Economic  
Informatics and Cybernetics,  
University of Economic Studies,  
010374 Bucharest, Romania

**Dr. Simona-Vasilica Oprea**

Department of Economic  
Informatics and Cybernetics,  
University of Economic Studies,  
010374 Bucharest, Romania

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### Message from the Guest Editors

Dear Colleagues,

Blockchain technology and the Internet of Things (IoT) enhance trading the surplus of the electricity generated by communities or microgrids. A smart adaptive big data framework for demand side management fostering market strategies, settlement, and grid-efficient operation essentially necessitates big data solutions to extract, process, and analyze a large volume of data generated by consumers/prosumers from various sources: smart appliances (IoT and sensors), small-scale generation, such as photovoltaic panels and micro-wind turbines, integrated with storage devices and electric vehicles.

Consumers' behavior is changing to a more active role empowered by recent advancements in ICT technologies. Thus, the operation of the smart appliances can be monitored, optimized, and controlled with smart home applications, sensors, and IoT architectures.

- big data
- blockchain
- IoT
- energy management
- sustainable development





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### **Prof. Dr. Marc A. Rosen**

Faculty of Engineering and  
Applied Science, University of  
Ontario Institute of Technology,  
Oshawa, ON L1G 0C5, Canada

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*Sustainability* Editorial Office  
MDPI, Grosspeteranlage 5  
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