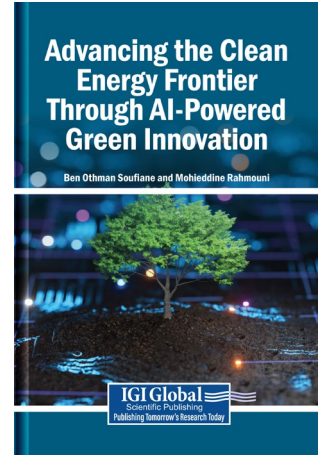


Advancing the Clean Energy Frontier Through AI-Powered Green Innovation

Ben Othman Soufiane (King Faisal University, Saudi Arabia)

Mohieddine Rahmouni (King Faisal University, Saudi Arabia)



Description:

The convergence of artificial intelligence (AI) and clean energy innovation transforms global sustainability efforts. As climate challenges and growing energy demands increase, AI-powered technologies emerge as catalysts for efficiency, scalability, and smart decision-making for green energy. From optimizing renewable energy to predict fluctuations and accelerating materials discovery, AI redefines the clean energy frontier. By integrating data-driven intelligence with sustainable engineering, this new wave of innovation may reduce carbon emissions while reshaping the way organizations harness and manage energy for a cleaner, smarter planet.

Advancing the Clean Energy Frontier Through AI-Powered Green Innovation explores how AI accelerates the development and deployment of clean energy technologies, serving as a catalyst for a sustainable energy transition. It examines AI-driven innovations, addressing ethical imperatives like data equity, algorithmic bias, and inclusive access. This book covers topics such as renewable energy, machine learning, and sustainable transport, and is a useful resource for engineers, business owners, academicians, researchers, and data scientists.

ISBN: 9798337355405 **Pages:** 316 **Copyright:** 2026 **Release Date:** 12/5/2025

Hardcover: \$235 **Softcover:** \$195 **E-Book:** \$225 **Hardcover + E-Book:** \$280

Topics Covered:

Artificial Intelligence (AI)	Grid Optimization
Clean Energy	Machine Learning
Climatology	Remote Sensing
Data Science	Renewable Energy
Electric Vehicles	Satellite Technology
Energy Engineering	Smart Cities
Ethics and Law	Sustainable Development
Financial Literacy	Sustainable Transport
Green Technology	Waste Management

Subject: Physical Sciences and Engineering

Readership Level: Advanced-Academic Level (Research Recommended)

Classification: Edited Reference

Research Suitable For: Advanced Undergraduate Students; Graduate Students; Researchers; Academicians; Professionals; Practitioners

Order Information

Phone: 717-533-8845 x100

Toll Free: 1-866-342-6657

Fax: 717-533-8661 or 717-533-7115

www.igi-global.com

Address: 701 East Chocolate Avenue, Hershey PA, 17033, USA