



Call for Book Chapters

Digital Technology Enabled Circular Economy: Models for Environmental and Resource Sustainability

Book Series: Advances in Intelligent Decision-Making, Systems Engineering, and Project Management

Scope of the Book

A primer for understanding digital technologies and their influence in the fields of manufacturing and industrial systems engineering in the context of the circular economy and sustainable business operations, the book will serve as a starting point for further study. The book will look into the impact of DT-enabled operational techniques on product life cycles, effective remanufacturing process design, eco-friendly logistics and warehousing practices, sustainable design of distributed energy supply systems, and effective recycling procedures, among other things. With this book, the authors hope to stimulate research that will contribute to the expansion of the body of knowledge on strategic, tactical, and operational decision-making in support of the integration of Industry 4.0 technologies with CE in the future.

Chapter Title

Chapters to be covered in this book includes (but not limited to) the following themes:

- ◆ AI, IoT and BDA powered CE models to evaluate and optimize performance of waste management systems.
- ◆ Applications of deep learning and unsupervised feature learning for prediction of sustainable feature smart transportation system
- ◆ Application of DT and CE technologies for Sustainable design of distributed energy supply systems
- ◆ Digital Technology-enabled circular economy for sustainable production and consumption
- ◆ Frameworks to Evaluate the Influence of DT and CE-based Sustainable Business Models on Greenhouse Gas Emissions.
- ◆ AI and IoT based CE models to evaluate its impact on job creation and reallocation
- ◆ AI and BDA based CE models to assess its impact on occupational health hazards
- ◆ Analysis of investments/profitability in circular projects
- ◆ Assessing the perspective of businesses and consumers on the circular economy in different sectors
- ◆ Measurement of circular performance on a life cycle basis
- ◆ Cloud and IIoT powered Smart Warehousing and logistics Operations for sustainable Perishable Food Supply chains.
- ◆ Data-Driven Intelligent Process Planning System
- ◆ Development of Sustainability Indicators, Frameworks, or Tools for Smart and Connected Systems
- ◆ Enabling Multi-Life Cycle Material and Information Flow Through Digital Technologies.
- ◆ Methods and tools for DT enabled sustainable circular economy transition and its impact on existing organizational culture.

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Submission of chapter (s) via this e-mail only: digitaltech2023@gmail.com