

1. Record Nr.	UNINA9911048824603321
Autore	Telukdarie Arnesh
Titolo	Sustainability and digital engineering management : African case studies in sustainable digital transformation / / Arnesh Telukdarie
Pubbl/distr/stampa	Leeds, England : , : Emerald Publishing Limited, , [2025] ©2025
ISBN	1-83662-642-8 1-83662-644-4
Edizione	[First edition.]
Descrizione fisica	1 online resource (294 pages)
Disciplina	658.404
Soggetti	Engineering Technology & Engineering - Engineering (General) Engineering: general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1. An Introduction to sustainability and digital engineering management: African case studies of sustainable digital transformation -- Chapter 2. Smart water management for sustainability - digital management of water resources through smart water management systems to promote sustainability -- Chapter 3. Unlocking insights in the green hydrogen industry through natural language processing techniques -- Chapter 4. Sustainability and uranium digitalization -- Chapter 5. Satellite imagery for water leak detection - a joint research initiative by the city's water department and the university of Johannesburg -- Chapter 6. Digital twins in healthcare: A pathway to sustainable hospital optimization -- Chapter 7. Business process for digital sustainability -- Chapter 8. Strategies for sustainable digitalization: Advancing the environmental, social, governance (esg) metrics -- Chapter 9. The use of robotic process automation (rpa) and artificial intelligence (ai) in designing a digital system landscape: A sustainable approach -- Chapter 10. Enhancing sustainable rural development through collaborative innovation -- Chapter 11. Sustainable waste management solutions for urban settlements: A case of the city of Johannesburg, South Africa -- Chapter 12. Green learning

management systems - the integration of digitalization into technical and vocational education -- Chapter 13. Modernizing vocational welding education: Chieta's success and challenges in blended learning and virtual reality integration -- Chapter 14. Sustainable business intelligence in master of business administration programs - Johannesburg business school's breakthrough with the shiny web application -- Chapter 15. exploring historical data trend analysis in the chemical sector occupational skills forecast tool -- Chapter 16. transformative innovation: Harnessing AI for sustainable research practices -- Chapter 17. A conclusion to sustainability and digital engineering management.

Sommario/riassunto

Sustainability and Digital Engineering Management showcases real-world case studies that demonstrate how digital technologies can help engineering managers achieve sustainable outcomes. The book spans a variety of innovative projects across multiple sectors, emphasising the substantial benefits of integrating sustainability within digital transformation initiatives. Offering practical insights into successful applications across diverse settings, the book presents examples of how to tackle current industry challenges with sustainable solutions. The chapters delve into various themes such as sustainable operations, business practices, urban and rural development, and education and skill development. They also address challenges encountered during implementation and the opportunities that emerged. Together, the case studies provide a detailed look at Africa's rapidly evolving digital landscape and offer valuable methods and techniques for achieving sustainability goals in areas such as water supply, urban planning, rural development, education, healthcare, manufacturing and mining. Sustainability and Digital Engineering Management is a key resource for practitioners, including engineers and project managers, who seek to integrate sustainability principles into engineering projects, as well as students seeking real-world examples of solutions to various sustainability challenges.
