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Descrizione fisica	1 online resource (207 pages)
Collana	Sustainable Production, Life Cycle Engineering and Management, , 2194-0541
Disciplina	658.5
Soggetti	Engineering economy Sustainable development Energy consumption Management Industrial management Manufactures Engineering Economics, Organization, Logistics, Marketing Sustainable Development Energy Efficiency Innovation/Technology Management Manufacturing, Machines, Tools, Processes
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Towards eco-factories of the future -- Integrating variable renewable electricity supply into manufacturing systems -- Development of a sustainability assessment tool for manufacturing companies -- Sustainability assessment in manufacturing and target setting in highly automated production -- Piloting comprehensive industrial energy efficiency improvement in a european rolling stock factory -- Cyber physical approach for integrated energy and maintenance management -- Two practical approaches to assess the energy demand of production machines -- Analysis of production lines with switch-off/on controlled machines -- Approach for achieving transparency in the use of compressed air in manufacturing as a basis for systematic energy

saving.

Sommario/riassunto

This edited monograph presents a selection of research contributions on eco-factories of the future. The topical focus lies on cutting-edge solutions from academia and industry that enable and support companies in their efforts towards sustainable manufacturing. The authors provide an overview over recent developments, aiming at a comprehensive understanding of eco- and cost-efficient manufacturing from machine to factory level. The solutions contributed by leading research institutions and companies have been mostly implemented and evaluated in industrial pilot projects across Europe. The methodological approaches cover topics such as factory planning, manufacturing simulation, energy management as well as life cycle evaluation. The target audience comprises industry experts and decision makers as well as researchers in the field of sustainable manufacturing.