Record Nr. UNINA9910984589603321 Autore Manohar Namrata **Titolo** Machine Learning Applications in Renewable Energy / / by Namrata Manohar, Mousmi Ajay Chaurasia, Stefan Mozar, Chia-Feng Juang Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2025 Pubbl/distr/stampa 9789819799398 **ISBN** 9819799392 Edizione [1st ed. 2025.] Descrizione fisica 1 online resource (263 pages) Collana Green Energy and Technology, , 1865-3537 Altri autori (Persone) ChaurasiaMousmi Ajay MozarStefan JuangChia-Feng Disciplina 006.31 Soggetti Machine learning Renewable energy sources Energy policy Machine Learning Renewable Energy Energy Policy, Economics and Management Aprenentatge automàtic Energies renovables Política energètica Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia 1. Renewable Energy Technologies (RET) – Society and Government Nota di contenuto Perspective -- 2. Waste-to-Energy (wte) -- 3. Computation of Energy from Waste -- 4. Grid Integration of Renewable Energy System(gires) --5. Artificial Intelligence and IOT in Renewable Energy. This book presents the need for Renewable Energy Technologies (RET) Sommario/riassunto in the context of providing a solution for the depletion of conventional resources, protecting the environment and enhancing the economic situation of a country by way of providing employment opportunities for many people may be as employees in various roles or initiating their

own enterprise. The book includes statistics on energy consumption

changes over the past few decades from conventional to renewable energies. The future scenario of energy in view of technological advancements and the employment status past, present and future is indicated. The need and importance of standards for the efficient operation of renewable energy systems are explained. The various modern technologies that are enabling the successful implementation of RET are presented. The role of the public and government and the various financial schemes governments provide is highlighted. A few modern applications and those under development would enhance the standard of living. The statistics and situation of the various aspects in the wake of the COVID-19 pandemic before, during and future effects are discussed, for the overall benefit of one and all. The various methods of a cost analysis of a project are indicated. Solar system components and the cost estimation of the solar power system in the present-day market status are provided. The various grid integration issues have been discussed.