Record Nr. UNINA9910522571603321 Earth Systems Protection and Sustainability: Volume 1 / / edited by **Titolo** James N. Furze, Saeid Eslamian, Safanah M. Raafat, Kelly Swing Pubbl/distr/stampa Cham, : Springer International Publishing, : Imprint : Springer, , 2022 **ISBN** 3-030-85829-4 Edizione [1st ed. 2022.] Descrizione fisica 1 online resource (347 pages) Disciplina 363.705 333.720151 Soggetti Environmental sciences - Mathematics **Environmental management** Sustainability Physical geography Mathematical Applications in Environmental Science **Environmental Management** Earth System Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter1. Generators, Harmonics and Evolutionary Emergence --Chapter 2. Sustainable Management of Soil-borne Plant Pathogens --Chapter3. Empirical Values of Halophytes in Agro-ecology and Sustainability -- Chapter4. Drilling Waste Management based on New Methods of Bioremediation and Solar Desalination -- Chapter 5. Orchid Diversity, Conservation and Sustainability in North-Eastern India --Chapter6. Effectiveness of the Role Technology Plays in Tackling Climate Change -- Chapter 7. Social and Environmental Imperatives for Risk Management: Lessons from the Rohingya Refugee Crisis --Chapter8. Risks for the Environment, Biodiversity, Humankind and the Planet -- Chapter 9. Disaster Risk Reduction and Management Policy in Nepal: A Centralized – Decentralized Dichotomy -- Chapter 10. Expanding Loops in Sustainable Intelligent Driven Markets in Zimbabwe -- Chapter11. Sustainable Consensus in an Uncertain Environment --Chapter 12. Robot Path Planning Research Applications in Static and

Dynamic Environments.

Sommario/riassunto

Earth Systems Protection and Sustainability qualifies imperatives and discusses the use of mathematical approaches to assess and achieve sustainability in threatened and vulnerable Earth systems globally. Mathematical advances in this context include both operational and Boolean methods, as well as linguistic, logic-based Bayesian approaches and generative mathematics relevant to scenario formation. The mathematic methods are refined into functional areas and deeper learning which enable searching algorithm application to achieve optimal solutions for the circular nature and application of sustainability. Pertinent sections and synergistic elements are covered in order to synthesize key informative nodes to advise of the very real dangers facing planet Earth and its biodiversity. Each volume stands in its own right. Analytical and scientific chapters are blended with social resilience and socio-economic development considerations, thus enabling the settings of sustainability within varying scenarios of climatic forces and species dynamics. Volume 1 focuses on groundbreaking evolutionary expansion assisting with life's continuation on Earth, sustainable management of pathogens and halophytes in agroecosystems, bioremediation methods in drilling waste management, conservation and sustainability of diversity, climate change mitigation strategies, displacement management in a large scale ongoing crisis, risk reduction and management policy, sustainable intelligent driven markets, sustainable consensus in an uncertain environment and path planning in static and dynamic environments. Pictorial contributions made from across the world, refine particularly urgent problems for attention or additionally provide solutions in methods of environmental sustainability as operated in communities to complement the descriptive chapter sections. Both volumes are targeted for a global audience of academic, professional, classroom, governmental, unit and community members, and seek to include all sectors to ensure ongoing and comprehensive Earth Systems Protection. .