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| Nota di contenuto | Part 1: Environmental Modeling and Monitoring -- 1. Reviewing Explainable Artificial Intelligence Towards Better Air Quality Modelling -- 2. Commonalities and Differences in ML-pipelines for Air Quality Systems -- 3. Optimal Stacking Identification for the Machine Learning Assisted Improvement of Air Quality Dispersion Modeling in Operation -- 4. Concepts for Open Access Interdisciplinary Remote Sensing with ESA Sentinel-1 SAR Data -- Part 2: Technological Advances and Sustainability -- 5. Developing a Digitisation Dashboard for Industry-Level Analysis of the ICT Sector -- 6. The Bike Path Radar: A Dashboard to Provide New Information About Bicycle Infrastructure Quality -- 7. Tactics for Software Energy Efficiency: A Review -- 8. everweather: A Low-Cost And Self-Powered AIoT Weather Forecasting Station for Remote Areas -- Part 3: Data-Driven Approaches to Environmental Analysis -- 9. News from Europe’s Digital Gateway: A Proof of Concept for Mapping Data Centre News Coverage -- 10. GAEA - A Country-Scale Geospatial Environmental Modelling Tool: Towards a Digital Twin for Real Estate -- 11. Detecting Soil Moisture Effects with Guerilla Sensing -- 12. Data Management of Heterogeneous Bicycle |

Infrastructure Data -- Part 4: Sustainable Planning and Infrastructure -- 13. Evaluation of Incentive Systems in the Context of SusCRM in a Local Online Retail Platform -- 14. Geospatial Data Processing and Analysis of Cross-Border Rail Infrastructures In Europe.

Sommario/riassunto

This book is an outcome of the 37th International Conference EnviroInfo 2023, held at the Leibniz Supercomputing Centre (Munich, Germany), organized by the technical committee for Environmental Informatics of the German Informatics Society. It explores the fusion of information and communication technologies with environmental sustainability. As a flagship edition of the EnviroInfo conference series, it showcases the latest advancements in applied informatics and environmental informatics. With a focus on "Towards a Sustainable Digital Society," the conference presents innovative research on topics such as green computing, sustainable software engineering, and digital transformation. The proceedings cover essential subjects for shaping a greener future, including energy-efficient workloads, environmental management systems, legal frameworks, Earth observation, and geographical information systems. It also examines emerging technologies like robotics, AI, and reinforcement learning, highlighting their applications in environmental informatics. From citizen science to disaster risk modeling and sustainable resource management, the book explores the interdisciplinary nature of environmental informatics. It also addresses societal aspects, including its role in developing countries. This resource is essential for researchers, professionals, and policymakers seeking to leverage ICT for addressing environmental challenges and building a sustainable digital society.