

1. Record Nr.	UNINA9911056825103321
Autore	Okonkwo Paul C.
Titolo	Net-zero transit : the future of eco-friendly transportation // Paul C. Okonkwo, Department of Mechanical and Mechatronics Engineering, Dhofar University, Salalah, Oman, Samuel Chukwujindu Nwokolo, Department of Physics, Faculty of Physical Sciences, University of Calabar, Nigeria, Mahaad Issa Shammass, Department of Civil and Environmental Engineering at College of Engineering, Dhofar University, Salalah, Oman
Pubbl/distr/stampa	Amsterdam, Netherlands : , : Elsevier, , [2025] ©2025
ISBN	9780443403743 0443403740 9780443403736 0443403732
Descrizione fisica	1 online resource (xxviii, 359 pages) : color illustrations
Disciplina	388.049
Soggetti	Carbon dioxide mitigation - Technological innovations Renewable energy sources - Technological innovations Transportation - Environmental aspects Transportation and state Transportation engineering - Environmental aspects
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	; 1 Introduction to transportation in a net-zero world -- ; 2 Historical, current, and future developments to achieve net-zero travel across various modes of transportation -- ; 3. Promoting sustainable transportation systems through urban planning and smart cities -- ; 4. Economic implications of transitioning to net-zero transit in various modes of transportation -- ; 5. Emerging net zero emission transit technologies in various modes of transportation -- ; 6. Behavioral change and public awareness in various modes of transportation -- ; 7. Considering accessibility, equity, and social justice across various modes of transportation -- ; 8. International cooperation and policy for

achieving net-zero transit across multiple modes of transportation -- ; 9. Public opinion and acceptance for reaching net-zero travel across various modes of transportation -- ; 10. Analysis of the effects of various policies and initiatives on the transportation sector -- ; 11. Analysing the effects of net zero policies on different modes of transportation's carbon footprint -- ; 12. Future-proof transit in eco-friendly transportation -- ; 13. Strategic insights: a comprehensive guide to synthesizing findings and crafting recommendations for various modes of transportation.

Sommario/riassunto

"Net-Zero Transit: The Future of Eco-Friendly Transportation thoroughly examines the possible future of environmentally friendly transportation, presenting creative approaches and tactics to attain a transit sector with no net emissions. The book explores the convergence of technology, politics, and consumer behavior to provide a comprehensive perspective on achieving environmentally friendly transportation worldwide. The authors illustrate the practicality and advantages of adopting environmentally friendly transportation systems through the examination of real-life examples and the analysis of data. The authors offer practical assistance for establishing sustainable practices in the transit sector by emphasizing successful efforts and innovative solutions. In addition, they provide valuable perspectives on possible obstacles and hurdles that may occur throughout the shift towards achieving net-zero emissions, as well as suggestions for effectively addressing and surmounting them. It uses theoretical analysis and case studies to explore the benefits and challenges of transitioning to a zero-net-carbon transportation system. The economic, social, and environmental impacts of transitioning to net-zero transit are discussed, including the role of government policies, public-private partnerships, and community engagement. The analytical framework of this book encompasses several scenarios, such as the implementation of carbon policy, carbon pricing, carbon offset programs, climate-conscious car-flight-marine pooling, climate-conscious car-flight-marine green gridlock, pedal-walking power progress, and future-proof transportation. It employs real historical datasets from different countries and regions across the globe to forecast future emissions from various transportation modes using a range of machine learning techniques. This book is an invaluable resource for legislators, industry experts, and individuals seeking to promote environmentally friendly transportation solutions and contribute positively to the environment. Its detailed analysis offers actionable insights to policymakers and stakeholders in the transportation industry, enabling them to make well-informed decisions regarding measures to reduce emissions. Key features: Includes stimulating conversations regarding the ecological consequences of conventional transportation techniques and the pressing necessity for a transition towards environmentally sustainable transportation. Thoroughly examines the policy consequences and regulatory systems that endorse carbon-neutral transportation. Provides practical suggestions for individuals, corporations, and governments seeking to decrease their carbon emissions by using innovative transportation solutions. Represents a visionary aspiration for a future in which transportation is not just efficient and convenient but also environmentally sustainable and socially just."--Provided by publisher.
