Introduction To Transportation Planning Built Environment

Urban Mass Transportation Planning

Transport Justice develops a new paradigm for transportation planning based on principles of justice. Author Karel Martens starts from the observation that for the last fifty years the focus of transportation planning and policy has been on the performance of the transport system and ways to improve it, without much attention being paid to the persons actually using – or failing to use – that transport system. There are far-reaching consequences of this approach, with some enjoying the fruits of the improvements in the transport system, while others have experienced a substantial deterioration in their situation. The growing body of academic evidence on the resulting disparities in mobility and accessibility, have been paralleled by increasingly vocal calls for policy changes to address the inequities that have developed over time. Drawing on philosophies of social justice, Transport Justice argues that governments have the fundamental duty of providing virtually every person with adequate transportation and thus of mitigating the social disparities that have been created over the past decades. Critical reading for transport planners and students of transportation planning, this book develops a new approach to transportation planning that takes people as its starting point, and justice as its end.

Introduction to Transportation Planning

How to create the world's new urban future With the majority of the world's population shifting to urban centres, urban planning—the practice of land-use and transportation planning to help shape cities structurally, economically, and socially—has become an increasingly vital profession. In Urban Planning For Dummies, readers will get a practical overview of this fascinating field, including studying community demographics, determining the best uses for land, planning economic and transportation development, and implementing plans. Following an introductory course on urban planning, this book is key reading for any urban planning student or anyone involved in urban development. With new studies conclusively demonstrating the dramatic impact of urban design on public psychological and physical health, the impact of the urban planner on a community is immense. And with a wide range of positions for urban planners in the public, nonprofit, and private sectors—including law firms, utility companies, and real estate development firms—having a fundamental understanding of urban planning is key to anyone even considering entry into this field. This book provides a useful introduction and lays the groundwork for serious study. Helps readers understand the essentials of this complex profession Written by a certified practicing urban planner, with extensive practical and community-outreach experience For anyone interested in being in the vanguard of building, designing, and shaping tomorrow's sustainable city, Urban Planning For Dummies offers an informative, entirely accessible introduction on learning how.

Planning the Built Environment

Focusing from the perspective of the user, Urban Mobility Design investigates how designed mobility and design processes can respond to and drive the emerging social and technological disruptions in the passenger transport sector. Profound technological advances are changing the mobility expectations of city populations around the world. Transportation design is an under represented research area of urban transportation planning. Urban Mobility Design addresses this gap, providing research-based analysis on current and future needs of urban transportation passengers. The book examines mobility from a uniquely multidisciplinary perspective, involving a variety of innovative design and transportation planning approaches. Examines urban mobility from a new perspective Coherently combines current research and practice in transport design, technology, mobility, user behaviour experience, and cultural analysis Utilizes hands-on experiences with transportation manufacturers, transit operators and engineers to bring a practical view on today's mobility challenges Shows how design approaches to problem solving can influence travel behaviour and improve passenger experience

Urban and Transit Planning

Transportation and Public Health: An Integrated Approach to Policy, Planning, and Implementation helps current and future transportation professionals integrate public health considerations into their transportation planning, thus supporting
sustainability and promoting societal health and well-being. The book defines key issues, describes potential solutions, and provides detailed examples of how solutions have been implemented worldwide. In addition, it demonstrates how to identify gaps in existing policy frameworks. Addressing a critical and emerging urgent need in transportation and public health research, the book creates a coherent, inclusive and interdisciplinary framework for understanding. By integrating principles from transportation planning and engineering, health management, economics, social and organizational psychology, the book deepens understanding of these multiple perspectives and tensions inherent in integrating public health and transportation planning and policy implementation. Bridges the gap between transport and public health, two fields that have traditionally traveled on separate and parallel tracks Synthesizes key research and practice literature Includes teaching and learning aids, such as case studies, chapter objectives, summaries and discussion questions

Transportation, Land Use, and Environmental Planning

Panels for Transportation Planning argues that panels - repeated measurements on the same sets of households or individuals over time - can more effectively capture dynamic changes in travel behavior, and the factors which underlie these changes, than can conventional cross-sectional surveys. Because panels can collect information on household attributes, attitudes and perceptions, residential and employment choices, travel behavior and other variables - and then can collect information on changes in these variables over time - they help us to understand how and why people choose to travel as they do, and how and why these choices are likely to evolve in the future. This book is designed for a wide audience: survey researchers who seek information on methodological advancements and applications; transportation planners who want an improved understanding of dynamic changes in travel behavior; and instructors of graduate courses in urban and transportation planning, research methods, economics, sociology, and public policy. Each chapter has been prepared to stand alone to illustrate a particular theme or application. The book is divided into topical parts which address the most salient issues in the use of panels for transportation planning: panels as evaluation tools, regional planning applications, accounting for response bias, and modeling and forecasting issues. These parts describe panel applications in the US, Australia, Great Britain, Japan, and the Netherlands. Each chapter is supplemented by extensive references; more than 400 studies, reflecting the work of more than 700 authors, are cited in the text.

Advanced Introduction to Urban Transport Planning

A comprehensive update, the fourth edition of this leading text features numerous chapters by new authors addressing the latest trends and topics in the field. The book presents the foundational concepts and methodological tools that readers need in order to engage with today's pressing urban transportation policy issues. Coverage encompasses passenger and freight dynamics in the American metropolis; the local and regional transportation planning process; and questions related to public transit, land use, social equity and environmental justice, energy consumption, air pollution, transportation finance, sustainability, and more. Among the student-friendly features are special-topic boxes delving into key issues and 87 instructive figures, including eight color plates. New to This Edition *Extensively revised coverage of information and communication technologies, urban freight, travel behaviors, and regional transportation planning. *Engaging discussions of current topics: smartphone travel tracking, Uber, car and bike sharing, food deserts, biofuels, and more. *Heightened focus on climate change. *Reflects over a decade of policy changes, technological advances, and emergent ideas and findings in the field. *Most of the figures and special-topic boxes are new.

From Mobility to Accessibility

Planning is currently a male profession, but an analysis of a century of town planning reveals this to be a new development; women have been central to the planning movement since it began. Women and Planning is the first comprehensive history and analysis of women and the planning movement, covering the philosophical, practical and policy dimensions of ‘planning for women’. Beyond the marginalization of women, modern, scientific planning hides a story of past links with eugenics, colonialism, artistic, utopian and religious movements and the occult. Central to the discussion is the questioning of how male planners have rewritten planning in their own image, projecting patriarchal assumptions in their creation of ‘urban realities’. Issues of class, sexuality, ethnicity and disability are raised by the fundamental question of ‘Who is being planned for?’

TRANSPORTATION PLANNING

Insightful and original in its approach, this Advanced Introduction to Urban Transport Planning provides a fresh look at cost-efficiency and casts the craft of transport planning in new light, allowing engineers and urban planners to understand the benefits of breaking mobility-centric systems that favour cars and prioritising multi-modal transport systems that promote access. It features in-depth analysis of traditional methods and how these are changing due to new technologies, financial constraints and evolving environmental trends.

Sustainable Transportation Planning

Most Asian cities have grown more congested, more sprawling, and less livable in recent years; and statistics suggest that this trend will continue. Rather than mitigate the problems, transport policies have often exacerbated them. In this book, the Asian Development Bank outlines a new paradigm for sustainable urban transport that gives Asian cities a workable, step-by-step blueprint for reversing the trend and moving toward safer, cleaner, more sustainable cities, and a better quality of urban life.
An Introduction to Sustainable Transportation

Transportation, Land Use, and Environmental Planning examines the practices and policies linking transportation, land use and environmental planning needed to achieve a healthy environment, thriving economy, and more equitable and inclusive society. It assesses best practices for improving the performance of city and regional transportation systems, looking at such issues as public transit and non-motorized travel investments, mixed use and higher density urban development, radically transformed vehicles, and transportation systems. The book lays out the growing need for greater integration of transportation, land use, and environmental planning, looking closely at changing demographic needs, public health concerns, housing affordability, equity, and livability. In addition, strategies for achieving these desired outcomes are presented, including urban design and land use planning, regional and corridor-level transit plans, bike and pedestrian improvements, demand management strategies, and emerging technologies and services. The final part of the book examines implementation challenges, considering lessons from the US and around the globe at both local and regional levels. Introduces never-before-published research Offers best practices for transit, cycling, urban design and housing provision Assesses emerging developments, such as smart cities, new vehicle technologies, automated highways and transportation sharing Examines the institutional and political dimensions of sustainability planning at the urban and regional levels Utilizes case studies from around the world that show alternative ways forward

An Introduction to Sustainable Transportation

In recognition of the importance of road safety as a major health issue, the World Health Organization has declared 2011-2021 the Decade of Safety Action. Several countries in Europe, North America, and Asia have been successful in reducing fatalities and injuries due to road traffic crashes. However, many low-income countries continue to experience high rates of traffic fatalities and injuries. Transport Planning and Traffic Safety: Making Cities, Roads, and Vehicles Safer offers a source book for road safety training courses as well as an introductory textbook for graduate-level courses on road safety taught in engineering institutes. It brings together the international experiences and lessons learned from countries which have been successful in reducing traffic crashes and their applicability in low-income countries. The content is based on lectures delivered during an international course on transportation planning and traffic safety, sponsored annually by the Transportation Research and Injury Prevention Programme (TRIPP) at the Indian Institute of Technology, Delhi. The book is interdisciplinary and aimed at professionals—traffic and road engineers, vehicle designers, law enforcers, and transport planners. The authors examine trends in performance of OECD countries and highlight the public health and systems approach of traffic safety with the vulnerable road user in focus. Topics include land use (transportation planning, mobility, and safety), safety education and legislation, accident analysis, road safety research, human tolerance to injury, vehicle design, safety in construction zones, safety in urban areas, traffic calming, public transportation, safety laws and policies, and pre-hospital care of the injured.

Urban Transportation Planning in the United States

Handbook of Obesity Prevention

Assessing and Managing the Ecological Impacts of Paved Roads

Intended as an introductory text to transportation planning, this book covers the traffic estimation stage of the planning process, and forms a general guide and survey to the total subject. This third edition reflects the growing importance of computers in transportation planning.

Women and Planning

Transportation plays a substantial role in the modern world; it provides tremendous benefits to society, but it also imposes significant economic, social and environmental costs. Sustainable transport planning requires integrating environmental, social, and economic factors in order to develop optimal solutions to our many pressing issues, especially carbon emissions and climate change. This essential multi-authored work reflects a new sustainable transportation planning paradigm. It explores the concepts of sustainable development and sustainable transportation, describes practical techniques for comprehensive evaluation, provides tools for multi-modal transport planning, and presents innovative mobility management solutions to transportation problems. Students of various disciplines, planners, policymakers and concerned citizens will find many of its provocative ideas and approaches of considerable value as they engage in the processes of understanding and changing transportation towards greater sustainability. This text reflects a fundamental change in transportation decision making. It focuses on accessibility rather than mobility, emphasizes the need to expand the range of options and impacts considered in analysis, and provides practical tools to allow planners, policy makers and the general public to determine the best solution to the transportation problems facing a community. The book starts by placing transportation within the broader sustainability discussion, emphasising a comprehensive approach to sustainability planning and introducing the notion of ‘regenerative transportation’. In sections on policymaking and planning the book examines how decisions are currently, and how they should be, made - explaining the complex and often misunderstood area of public participation. The authors explain demand management as applied to transportation and present lessons from other public arenas and areas of application, especially in urban-suburban areas. The text takes readers through each and every mode of transport, beginning with human-powered
modes and ending in motorized modes, including marine and air transport. The modes are analyzed separately and in comparison with others according to several criteria: Capacity/utility/functionality considerations; infrastructure demands; resource consumption; land use considerations; pollution; and costs. In ways that non-technically trained readers as well as planning students professionals can find useful the book includes guidance on how to optimize transportation systems; balancing economic, social and environmental objectives while creating just, robust, and diverse, rather than one-size-fits-all, solutions. The modes are grouped and compared within their respective contexts, and there is vital discussion and differentiation between passenger and freight-goods transport. The final section develops a comprehensive summary of the previous chapters and develops arguments for sustainable transportation policymaking and integrated planning, providing international examples and case studies and extracting from them general applications for integrated sustainable transportation. Featuring extensive international examples and case-studies, textboxes, graphics, recommended reading and end of chapter questions, the authors draw on considerable teaching and researching experience to present an essential, ground-breaking and authoritative text on sustainable transport.

Transportation Planning Handbook

Geocomputation with R is for people who want to analyze, visualize and model geographic data with open source software. It is based on R, a statistical programming language that has powerful data processing, visualization, and geospatial capabilities. The book equips you with the knowledge and skills to tackle a wide range of issues manifested in geographic data, including those with scientific, societal, and environmental implications. This book will interest people from many backgrounds, especially Geographic Information Systems (GIS) users interested in applying their domain-specific knowledge in a powerful open source language for data science, and R users interested in extending their skills to handle spatial data. The book is divided into three parts: (I) Foundations, aimed at getting you up-to-speed with geographic data in R, (II) extensions, which covers advanced techniques, and (III) applications to real-world problems. The chapters cover progressively more advanced topics, with early chapters providing strong foundations on which the later chapters build. Part I describes the nature of spatial datasets in R and methods for manipulating them. It also covers geographic data import/export and transforming coordinate reference systems. Part II represents methods that build on these foundations. It covers advanced map making (including web mapping), “bridges” to GIS, sharing reproducible code, and how to do cross-validation in the presence of spatial autocorrelation. Part III applies the knowledge gained to tackle real-world problems, including representing and modeling transport systems, finding optimal locations for stores or services, and ecological modeling. Exercises at the end of each chapter give you the skills needed to tackle a range of geospatial problems. Solutions for each chapter and supplementary materials providing extended examples are available at https://geocompr.github.io/geocompkg/articles/. Dr. Robin Lovelace is a University Academic Fellow at the University of Leeds, where he has taught R for geographic research over many years, with a focus on transport systems. Dr. Jakub Nowosad is an Assistant Professor in the Department of Geoinformation at the Adam Mickiewicz University in Poznan, where his focus is on the analysis of large datasets to understand environmental processes. Dr. Jannes Muenchow is a Postdoctoral Researcher in the GIScience Department at the University of Jena, where he develops and teaches a range of geographic methods, with a focus on ecological modeling, statistical geocomputing, and predictive mapping. All three are active developers and work on a number of R packages, including stplanr, sabre, and RQGIS.

Urban Mobility Design

For many years the integration of the location of land use and activities in spatial systems, as well as the provision of transport in movement of goods, services and people, has been recognized as a challenge amongst various specialists, including: engineers, transportation planners, economists, environmentalists, urban and regional planners and developers. The purpose of this book is to address transportation modelling in terms of technology, techniques and methodology application in context to the interface between transportation systems, land use planning, and environmental challenges and application. The methodology of transportation modelling is applied to international practices and application based on specific case studies, inclusive of public transportation projects; transportation modelling techniques in practice; international research agenda; network design and channel strategies; strategic planning; application of technology in traffic surveys and interpretation; emissions from transportation systems; application of mathematical models and the interface between environment, land use and development in terms of location in space and the resulting activities. Of value to both theorists and practitioners, this book references the integration of transportation modelling techniques within an interdisciplinary environment inside all spatial systems.

Urban Transportation Planning in the United States

Comprehensive in scope and meticulously researched, Handbook of Obesity Prevention analyzes the intricate causes of this public health crisis, and sets out concrete, multilevel strategies for meeting it head-on. This innovative handbook clearly defines obesity in clinical, epidemiologic, and financial terms, and offers guidelines for planning and implementing programs and evaluating results. This systematic approach to large-scale social and policy change gives all parties involved—from individual practitioners to multinational corporations—the tools to set and attain realistic goals based on solid evidence and best practice in public health. A sample of topics covered: The individual: risk factors and prevention across the lifespan, specific populations (pregnant women, ethnic and regional groups). Levers for change in schools and workplaces. Community settings: role of the physical environment. "De-marketing" obesity: food industries and the media. Grassroots action: consumers and communities. The global obesity epidemic: rapid developments, potential solutions. From obesity prevention to health promotion: the future of the field. Its level of detail and wide range of topics makes the Handbook of Obesity Prevention a bedrock sourcebook, overview, reference, or teaching text. Read by topic or cover to cover, here is accurate, up-to-date information for professionals and
students in all areas of public health.

Urban Planning For Dummies

Many urban and transportation problems, such as traffic congestion, traffic accidents, and environmental burdens, result from poor integration of land use and transportation. This graduate-level textbook outlines strategies for sustainably integrating land use and transportation planning, addressing the impact on land use of advanced transport like light rail transit and autonomous cars, and the emerging focus on cyber space and the role of ICT and big data in city planning. The text also explores how we can create sustainable cities for the future. In contrast to the "compact city", which has been proposed as an environmentally friendly urban model, recent years have seen an acceleration in the introduction of ICT-based "smart city". As people's lives are drastically changed by COVID-19, a new form of city is being explored. The new concept of a "smart sharing city" is introduced as an urban model that wisely integrates physical and cyber space, and presents a way to solve future urban issues with new technologies.

Transport Planning and Mobility in Urban East Africa

This comprehensive text examines the evolution of urban transportation planning in the United States, from early developments in highway planning in the 1930s to today's concerns over sustainable development, security, and pollution control.

Transportation Planning Handbook

'Transport Planning and Traffic Engineering' is a comprehensive textbook on the relevant principles and practice. It includes sections on transport policy and planning, traffic surveys and accident investigation, road design for capacity and safety, and traffic management. Clearly written and illustrated, the book is ideal reading for students of t

Accessibility Analysis and Transport Planning

"This book provides the perfect comprehensive introduction to mass transit for anyone interested in transportation planning as a career, as well as for those who simply have a personal interest in the subject area. It is a policy-oriented book that contains some technical material, but avoids in-depth coverage of the electric and mechanical engineering aspects." "Distinctly factual, and not ideological, the book offers readers a balanced view of the debate between highways and transit - carefully presenting both sides of controversial issues. The intent is to give readers the solid understanding necessary to analyze problems objectively, and to assure that transit proposals are rationally planned and evaluated." "The book dedicates a full three chapters to historical and political background, and three others to the transit technologies or "modes" currently in use. Furthermore, readers will find coverage of the design of transit networks, operations and management, and impacts on land use, energy consumption, and the environment. Lastly, two chapters cover ridership characteristics, and two deal with economics and finance."--BOOK JACKET.Title Summary field provided by Blackwell North America, Inc. All Rights Reserved

Panels for Transportation Planning

Widened in scope and completely updated, this new edition of a well-established textbook provides an authoritative introduction to all modes of public transport; from taxis and local buses to intercity rail, domestic air and express coaches.

Geocomputation with R

All phases of road development affect physical and chemical soil conditions, water flow, and air and water quality, as well as plants and animals. Roads and traffic can alter wildlife habitat, cause vehicle-related mortality, impede animal migration, and disperse nonnative pest species of plants and animals. Integrating environmental considerations into all phases of transportation is an important, evolving process. The increasing awareness of environmental issues has made road development more complex and controversial. Over the past two decades, the Federal Highway Administration and state transportation agencies have increasingly recognized the importance of the effects of transportation on the natural environment. This report provides guidance on ways to reconcile the different goals of road development and environmental conservation. It identifies the ecological effects of roads that can be evaluated in the planning, design, construction, and maintenance of roads and offers several recommendations to help better understand and manage ecological impacts of paved roads.

TRANSPORTATION PLANNING : PRINCIPLES, PRACTICES AND POLICIES

Highlighting the highly topical subject of transport and the environment and the closely related field of town planning, this book contains chapters concerning developments in the transportation systems of various cities all over the world. These include Singapore, Sao Paulo, Santiago, Bilbao, Eindhoven, Adelaide, Bangalore and Thessaloniki. The studies featured will be of interest to postgraduate researchers in transport and the environment, engineers and planners working within transport and environment ministries and local authorities, and consultants.

Urban Form and Accessibility
Transportation planning plays a useful role as a lifeline for any society. It comprises applications of science and art, where a great deal of judgment coupled with its technical elements is required to arrive at a meaningful decision in order to develop transportation infrastructure facilities for the community. Transportation planning, thereby, helps in achieving a safer, faster, comfortable, convenient, economical and environment-friendly movement of people and goods traffic. In this context, an attempt has been made to write a comprehensive book on this subject, which not only deals with the basic principles and fundamentals of transportation planning but also keeps abreast of the current practices and policies conducted in transportation planning.

Divided into 23 chapters, the book felicitously proffers the fundamental techniques of transportation planning and travel demand modelling, urban form and urban structure and their relation with transport pattern, land use-transport model, accessibility and mobility consideration in transport modelling, graph theory and road network planning, cost benefit analysis, mass transport planning, applications of intelligent transport system, applications of software in transport planning, and transport policies. Exploiting a systematic approach avoiding proximity, this book will prove to be a vade mecum for the undergraduate and postgraduate students of civil engineering and transportation engineering. Besides, this book is of immense benefit to the students opting a course on Master of Planning conducted in various institutes. Highlights of the Book • Systematically organised concepts well-supported with ample illustrations • Prodigious illustrative figures and tables • Incorporates chapter-end summary to help in grasping the quirk concepts • Presents state-of-the-art data • Includes chapter-end review questions to help students prepare for examination

Changing Course

In From Mobility to Accessibility, an expert team of researchers flips the tables on the standard models for evaluating regional transportation performance. Jonathan Levine, Joe Grengs, and Louis A. Merlin argue for an “accessibility shift” whereby transportation planning, and the transportation dimensions of land-use planning, would be based on people’s ability to reach destinations, rather than on their ability to travel fast. Existing models for planning and evaluating transportation, which have taken vehicle speeds as the most important measure, would make sense if movement were the purpose of transportation. But it is the ability to reach destinations, not movement per se, that people seek from their transportation systems. While the concept of accessibility has been around for the better part of a century, From Mobility to Accessibility shows that the accessibility shift is compelled by the fundamental purpose of transportation. The book argues that the shift would be transformative to the practice of both transportation and land-use planning but is impeded by many conceptual obstacles regarding the nature of accessibility and its potential for guiding development of the built environment. By redefining success in transportation, the book provides city planners, decisionmakers, and scholars a path to reforming the practice of transportation and land-use planning in modern cities and metropolitan areas.

Transport Justice

A multi-disciplinary approach to transportation planning fundamentals The Transportation Planning Handbook is a comprehensive, practice-oriented reference that presents the fundamental concepts of transportation planning alongside proven techniques. This new fourth edition is more strongly focused on serving the needs of all users, the role of safety in the planning process, and transportation planning in the context of societal concerns, including the development of more sustainable transportation solutions. The content structure has been redesigned with a new format that promotes a more functionally driven multimodal approach to planning, design, and implementation, including guidance toward the latest tools and technology. The material has been updated to reflect the latest changes to major transportation resources such as the HCM, MUTCD, HSM, and more, including the most current ADA accessibility regulations. Transportation planning has historically followed the rational planning model of defining objectives, identifying problems, generating and evaluating alternatives, and developing plans. Planners are increasingly expected to adopt a more multi-disciplinary approach, especially in light of the rising importance of sustainability and environmental concerns. This book presents the fundamentals of transportation planning in a multidisciplinary context, guiding readers a practical reference for day-to-day answers. Serve the needs of all users Incorporate safety into the planning process Examine the latest transportation planning software packages Get up to date on the latest standards, recommendations, and codes Developed by The Institute of Transportation Engineers, this book is the culmination of over seventy years of transportation planning solutions, fully updated to reflect the needs of changing society. For a comprehensive guide with practical answers, The Transportation Planning Handbook is an essential reference.

Transport Planning and Traffic Safety

“The Great American Dream of cruising down the parkway, zipping from here to there at any time has given way to a true nightmare that is destroying the environment, costing billions and deeply impacting our personal well-being. Getting from A to B has never been more difficult, expensive or miserable. It doesn’t have to be this way. Jeffrey Tumlin’s book Sustainable Transportation Planning offers easy-to-understand, clearly explained tips and techniques that will allow us to quite literally take back our roads. Essential reading for anyone who wants to drive our transportation system out of the gridlock.” - Marianne Cusato, home designer and author of Get Your House Right: Architectural Elements to Use and Avoid

The book is full of useful ideas on nearly every page... ? Bill DiBenedetto of Triple Pundit As transportation-related disciplines of urban planning, architecture, landscape architecture, urban economics, and social policy have undergone major internal reform efforts in recent decades. Written in clear, easy-to-follow language, this book provides planning practitioners with the tools they need to achieve their cities? economic development, social equity and ecological sustainability goals. Starting with detailed advice for improving each mode of transportation, the book offers guidance on balancing the needs of each mode against each other, whether on a downtown street, or a small town neighborhood, or a regional network.
Transportation, Land Use and Integration

This book critically explores the relationship between mobility patterns, transport provision and urban development in East African cities. Bringing together contributions on the futures of mobility in urban East Africa, the chapters examine transport provision, mobility patterns, location-specific modes of transport and transformative factors for transport and mobility in the rapidly urbanising region. The book outlines different mobility needs to be addressed in transport planning to serve and shape the respective cities and examines the decision-making process in transport planning and the level of accountability to the public. The contributors show the dialectic between innovation in transport/mobility and urban development under rapid urbanisation and discusses how to practically integrate mobility and transport provision into urban development. This book will be of interest to scholars in urban planning, transport planning, transport geography, social sciences and African studies.

Introduction to Urban Transportation Planning Procedures

Intended as an introductory text to transportation planning, this book covers the traffic estimation stage of the planning process, and forms a general guide and survey to the total subject. This third edition reflects the growing importance of computers in transportation planning.

Advances in City Transport

Transportation plays a substantial role in the modern world; it provides tremendous benefits to society, but it also imposes significant economic, social and environmental costs. Sustainable transport planning requires integrating environmental, social, and economic factors in order to develop optimal solutions to our many pressing issues, especially carbon emissions and climate change. This essential multi-authored work reflects a new sustainable transportation planning paradigm. It explores the concepts of sustainable development and sustainable transportation, describes practical techniques for comprehensive evaluation, provides tools for multi-modal transport planning, and presents innovative mobility management solutions to transport problems. This text reflects a fundamental change in transportation decision making. It focuses on accessibility rather than mobility, emphasizes the need to expand the range of options and impacts considered in analysis, and provides practical tools to allow planners, policy makers and the general public to determine the best solution to the transportation problems facing a community. Featuring extensive international examples and case-studies, textboxes, graphics, recommended reading and end of chapter questions, the authors draw on considerable teaching and researching experience to present an essential, ground-breaking and authoritative text on sustainable transport. Students of various disciplines, planners, policymakers and concerned citizens will find many of its provocative ideas and approaches of considerable value as they engage in the processes of understanding and changing transportation towards greater sustainability.

Introduction to Transportation Planning

Describes the evolution of urban transportation planning from its beginnings in early highway and transit planning to current concerns for the environment and sustainable development.

Concepts in Urban Transportation Planning


Transport Planning and Traffic Engineering

Accessibility is a concept central to integrated transport and land use planning. The goal of improving accessibility D for all modes, for all people D has made its way into mainstream transport policy and planning in communities worldwide. This unique book introduces new accessibility approaches to transport planning across Europe and the United States. The expert contributors present advanced interdisciplinary approaches in accessibility research and modelling with best practices in accessibility planning and evaluation, to better support integrated transport and land-use policy-making. This book will prove an absorbing read for scholars, researchers and students working on accessibility issues across different academic fields including transport geography, spatial economics and social science. Transport and urban planners will also find the book to be an invaluable reference tool.

The Geography of Urban Transportation, Fourth Edition

The growth of global urbanization places great strains on energy, transportation, housing and public spaces needs. As such, transport and land use are inextricably linked. Urban Form and Accessibility: Social, Economic, and Environment Impacts consolidates key insights from multidisciplinary perspectives on the relationship between urban form and transportation planning. Synthesizing the latest cutting-edge research, the book translates academic evidence into practice. Starting with an overview of the key concepts relevant to each discipline, the book covers critical elements such as governance, travel behavior, and technological disruption, showing how to move towards a more sustainable society for all city inhabitants. Draws on evidence-based success stories from countries around the globe Gathers global leading thinkers to provide the state-of-the-art on the topic Examines social, economic, and environmental impacts within each chapter Each chapter’s content will have the same structure for easier discoverability.
Transportation and Public Health

This book offers solutions for creating sustainable urban transportation. Topics include historical developments, planning, policy and legislative initiatives, nonmotorized and public transportation, environmental and social justice issues, and safety. The author discusses social, health and economic consequences of autocentric transportation and possible policy measures to address them. The important topic of changing travel behavior is discussed. Chapters contain straightforward concepts, case studies, review questions and ideas for class projects. Instructors considering this book for use in a course may request an examination copy here.

Public Transport

Planning the Built Environment takes a systematic, technical approach to describing how urban infrastructures work. Accompanied by detailed diagrams, illustrations, tables, and reference lists, the book begins with landforms and progresses to essential utilities that manage drainage, wastewater, power, and water supply. A section on streets, highways, and transit systems is highly detailed and practical. Once firmly grounded in these "macro" systems, Planning the Built Environment examines the physical environments of cities and suburbs, including a discussion of critical elements such as street and subdivision planning, density, and siting of community facilities. Each chapter includes essential definitions, illustrations and diagrams, and an annotated list of references. This timely book explains new physical planning methods and current thinking on international, public, and private partnerships. It addresses the new technologies, tools, and approaches used today for successful planning and development. Planners, architects, engineers, and anyone who designs or manages the physical components of urban areas will find this book both an authoritative reference and an exhaustive, understandable technical manual of facts and best practices. Instructors in planning and allied fields will appreciate the practical exercises that conclude each chapter: valuable learning tools for students and professionals alike.

The Urban Transportation Planning System (UTPS)

Transportation planning plays a key role as a lifeline for any society. It comprises applications of science and art, where a great deal of judgment coupled with its technical elements is required to arrive at a meaningful decision in order to develop transportation infrastructure facilities for the community. It, thereby, helps in achieving a safer, faster, comfortable, convenient, economical, sustainable and environment-friendly movement of people and goods traffic. In this context, the book has been written, and now updated in the second edition dealing with the basic principles and fundamentals of transportation planning. It also keeps abreast of the current techniques practices and policies conducted in transportation planning. Exploiting a systematic approach avoiding prolixity, this book will prove to be a vade mecum for the undergraduate and postgraduate students of civil engineering and transportation engineering. Besides, the book is of immense benefit to the students opting a course on Mater of Planning conducted in various institutes.

HIGHLIGHTS OF THE BOOK

- Systematically organised concepts
- Well-supported with ample illustrations
- Prodigious illustrative figures and tables
- Chapter-end summary helps in grasping the quirk concepts
- State-of-the-art data garnered in the book presents an updated version
- Chapter-end review questions help students to prepare for the examination
- NEW TO THE SECOND EDITION
  - Provides Fuzzy Logic, Artificial Neural Network and Neuro Fuzzy Model techniques (Chapter 4)
  - Incorporates the formation of travel demand model with soft computing techniques including trip generation model (Chapter 5)
  - Provides a practical approach of calibrating Origin Destination Matrix (Chapter 6)
  - Incorporates the concept of mode choice models with a number of worked-out examples (Chapter 7)
  - Provides a case study on mobility plan of Gandhinagar, Gujarat, demonstrating the development of all stages of transport modelling (Chapter 11)
  - Includes a new appendix on "Applications of Soft Computing in Trip Distribution and Traffic Assignment"

City and Transportation Planning

A volume of five parts, this book is a culmination of selected research papers from the second version of the international conferences on Urban Planning & Architectural Design for sustainable Development (UPAOSD) and Urban Transit and Sustainable Networks (UTSN) of 2017 in Palermo and the first of the Resilient and Responsible Architecture and Urbanism Conference (RRAU) of 2018 in the Netherlands. This book, not only discusses environmental challenges of the world today, but also informs the reader of the new technologies, tools, and approaches used today for successful planning and development as well as new and upcoming ones. Chapters of this book provide in-depth debates on fields of environmental planning and management, transportation planning, renewable energy generation and sustainable urban land use. It addresses long-term issues as well as short-term issues of land use and transportation in different parts of the world in hopes of improving the quality of life. Topics within this book include: (1) Sustainability and the Built Environment (2) Urban and Environmental Planning (3) Sustainable Urban Land Use and Transportation (4) Energy Efficient Urban Areas & Renewable Energy Generation (5) Quality of Life & Environmental Management Systems. This book is a useful source for academics, researchers and practitioners seeking pioneering research in the field.