Geographic Information Systems in Transportation Research

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About the Book

Computer-based transportation applications and databases have been a fact of life for several decades. Transportation information, however, has often not been accessible in a user-friendly manner, and integrating data from diverse sources has too often been a challenge in itself. Geographic Information Systems (GIS) have revolutionized spatial planning and decision making by using the spatial dimension of the depicted world as a common thread according to which all information can be referenced. The application of GIS to transportation research (GIS-T) is quickly becoming a mature domain of application of the GIS technology and has gained full recognition among transportation practitioners and academics. This book fills a void by providing an overview of the state-of-the-art of GIS for transportation, from data management issues, to data manipulation and analysis, including considerations brought to the forefront by real-time and mobile computing. The twenty-two original contributions by internationally acclaimed authors will be a key reference for practitioners, students and scholars.