

Special features and application of this book

This book, *Traffic and Safety Sciences*, which attempts to broadly address various issues surrounding the mobility society, is a compilation of the wisdom of experts in various academic fields about technologies and social systems that ensure traffic safety.

The Theory section is composed of 11 chapters, and in each, experts explain keywords and phrases that are essential for study of the next-generation mobility society. Therefore, it is not necessary to begin from the first chapter; the contents of each chapter are accessible even if read out of order. The flow of this book is as follows.

In Chapters 1 and 2, experts in urban engineering provide knowledge needed to establish the mobility society by going over the roles of urban activities and traffic. In Chapter 3, experts in environmental studies summarize the relationship between environmental issues and traffic and provide insight into the establishment of eco-friendly low-carbon societies.

From Chapter 4, the focus of the book shifts toward traffic-related issues and the characteristics and solutions of traffic jams are discussed by experts in traffic engineering. In Chapter 5, experts in information and communication engineering focus on the Intelligent Transport System as an advance in transportation technology and discuss its history and future development. In Chapters 6 and 7, mechanical engineering experts explain safe vehicle technologies by examining the factors in traffic accidents. In Chapters 8 and 9, medical professionals and psychologists explain the traffic-related psychology and behaviors of drivers and describe emergency medical care systems and accident prevention measures.

Traffic-related problems affecting the social system are addressed in Chapters 10 and 11. In Chapter 10, experts in law introduce traffic-related legal structures, criminal regulation, and risk management, while in Chapter 11, experts in economics describe sustainable growth while presenting conflicting concepts, such as balanced and unbalanced growth and regulation and deregulation. Lastly, under the Resilient mobility society heading, this book discusses how a mobility society should be prepared for and how to recover quickly from various disasters and socio-environmental changes.

In the Theory section, each chapter provides a listing of International Association of Traffic and Safety Sciences (IATSS) projects related to the respective chapter's contents. By reading the Practice section after the Theory section, readers can see how the theories address issues that pertain to specific areas.

It should be noted here that the aim of this book is not to exhaustively present professional opinions for each field. Rather, by going over each field in a cross-sectional manner, this book intends to help readers learn about traffic and safety sciences from a multifaceted perspective. Furthermore, the special interdisciplinary features of IATSS are strongly emphasized in this book, and it would be a great pleasure to see readers discovering new knowledge buried between chapters by reading each chapter and section freely.