

Automation In Road Rail Combined Transport

"A Vision for Safety replaces the Federal Automated Vehicle Policy released in 2016. This updated policy framework offers a path forward for the safe deployment of automated vehicles by: encouraging new entrants and ideas that deliver safer vehicles; making Department regulatory processes more nimble to help match the pace of private sector innovation; and supporting industry innovation and encouraging open communication with the public and with stakeholders."—Introductory message.

Since 2007, the biennial International Conferences on Dynamics in Logistics (LDIC) offers researchers and practitioners from logistics, operations research, production, industrial and electrical engineering as well as from computer science an opportunity to meet and to discuss the latest developments in this particular research domain. From February 23rd to 25th 2022 for the eighth time, LDIC 2022 is held in Bremen, Germany. Similar to its seven predecessors, the Bremen Research Cluster for Dynamics in Logistics (LogDynamics) organizes this conference. The spectrum of topics reaches from the dynamic modeling, planning and control of processes over supply chain management and maritime logistics to innovative technologies and robotic applications for cyber-physical production and logistics systems. LDIC 2022 provides a forum for the discussion of advances in that matter. The conference program consists of keynote speeches and research papers selected by a severe double-blind reviewing process. Within these proceedings all the papers are published. By this, the proceedings give an interdisciplinary outline on the state of the art of dynamics in logistics as well as identify challenges and solutions for logistics today and tomorrow.

This open access book presents research and evaluation results of the Austrian flagship project “Connecting Austria,” illustrating the wide range of research needs and questions that arise when semi-automated truck platooning is deployed in Austria. The work presented is introduced in the context of work in similar research areas around the world. This interdisciplinary research effort considers aspects of engineering, road-vehicle and infrastructure technologies, traffic management and optimization, traffic safety, and psychology, as well as potential economic effects. The book’s broad perspective means that readers interested in current and state-of-the-art methods and techniques for the realization of semi-automated driving and with either an engineering background or with a less technical background gain a comprehensive picture of this important subject. The contributors address many questions such as: Which maneuvers does a platoon typically have to carry out, and how? How can platoons be integrated seamlessly in the traffic flow without becoming an obstacle to individual road users? What trade-offs between system information (sensors, communication effort, etc.) and efficiency are realistic? How can intersections be passed by a platoon in an intelligent fashion? Consideration of diverse disciplines and highlighting their meaning for semi-automated truck platooning, together with the highlighting of necessary research and evaluation patterns to address such a broad task scientifically, makes Energy-Efficient and Semi-automated Truck Platooning a unique contribution with methods that can be extended and adapted beyond the geographical area of the research reported.

This report analyses illustrative benchmarking exercises to provide insights into such questions as what is efficient intermodal freight transport and what opportunities exist to improve complex intermodal chains. Emerging Technologies for Connected and Smart Vehicles Impact of Automation on Employment Modern Trends and Research in Intermodal Transportation Proceedings of the 8th International Conference LDIC 2022, Bremen, Germany Vehicles, Drivers, and Safety North American Tunneling 2022 Proceedings

*This two-volume set LNCS 12212 and 12213 constitutes the refereed proceedings of the Second International Conference on HCI in Mobility, Transport, and Automotive Systems, MobiTAS 2020, held as part of the 22nd International Conference on Human-Computer Interaction, HCII 2020, in Copenhagen, Denmark, in July, 2020. *A total of 1439 full papers and 238 posters have been carefully reviewed and accepted for publication in HCII 2020. The papers cover the entire field of human-computer interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. MobiTAS 2020 includes a total of 59 papers and they are organized in the following topical sections: Part I, Automated Driving and In-Vehicle Experience Design: UX topics in automated driving, and designing in-vehicle experiences.*

*Part II, Driving Behavior, Urban and Smart Mobility: studies on driving behavior, road and smart mobility. *The conference was held virtually due to the COVID-19 pandemic. This is the fifth volume of a sub-series on Road Vehicle Automation published within the Lecture Notes in Mobility. Like in previous editions, scholars, engineers and analysts from all around the world have contributed chapters covering human factors, ethical, legal, energy and technology aspects related to automated vehicles, as well as transportation infrastructure and public planning. The book is based on the Automated Vehicles Symposium which was hosted by the Transportation Research Board (TRB) and the Association for Unmanned Vehicle Systems International (AUVSI) in San Francisco, California (USA) in July 2017.*

The book presents a representative selection of all publications published between 01/2009 and 06/2010 in various books, journals and conference proceedings by the researchers of the institute cluster: IMA - Institute of Information Management in Mechanical Engineering ZLW - Center for Learning and Knowledge Management IIU - Institute for Management Cybernetics, Faculty of Mechanical Engineering, RWTH Aachen University. The contributions address the crucial five core research fields: suitable processes for knowledge- and technology-intensive organizations, next-generation teaching and learning concepts for universities and the economy, cognitive IT-supported processes for heterogeneous and cooperative systems, target group-adapted user models for innovation and technology development processes, semantic networks and ontologies for complex value chains and virtual environments innovative fields of application such as cognitive systems, autonomous truck convoys, telemedicine, ontology engineering, knowledge and information management, learning models and technologies, organizational development and management cybernetics are presented. The contributions show the unique potential of the broad and interdisciplinary research approach of the ZLW/IMA and the IIU.

This book is the ninth volume of a sub-series on Road Vehicle Automation, published as part of the Lecture Notes in Mobility. It gathers contributions to the Automated Road Transportation Symposium (ARTS), held on July 12-15, 2021, as a fully virtual event, and as a continuation of TRB’s annual summer symposia on automated vehicle systems. Written by researchers, engineers and analysts from around the globe, this book offers a multidisciplinary perspectives on the opportunities and challenges associated with automating road transportation. It highlights innovative strategies, including public policies, infrastructure planning and automated technologies, which are expected to foster sustainable and automated mobility in the near future, thus addressing industry, government and researchers communities alike.

Technology and the City

Driver Reactions to Automated Vehicles

Automated Vehicles and Maritime, Road, Rail, and Aviation Domains

Papers Submitted to the Subcommittee on Automation and Energy Resources, Joint Economic Committee, Congress of the United States

Removing the Barriers

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Transportation Engineering: Theory, Practice and Modeling, Second Edition presents comprehensive information related to traffic engineering and control, transportation planning and evaluation of transportation alternatives. The book systematically deals with almost the entire transportation engineering area, offering various techniques related to transportation modeling, transportation planning, to use models and methods when predicting travel and freight transportation demand, how to analyze existing transportation networks, how to plan for new networks, and how to develop traffic control tactics and strategies. New topics addressed include alternative intersections, alternative interchanges and individual/private transportation. Readers will also learn how to utilize a range of engineering transportation systems safer, more cost-effective, and “greener”. Providing a broad view of transportation engineering, including transport infrastructure, control methods and analysis techniques, this new edition is for postgraduates in transportation and professionals needing to keep up-to-date with the latest theories and models. Covers all forms of transportation engineering, including air, rail, and different transportation modes and how to make them sustainable. Features a new chapter covering the reliability, resilience, robustness and vulnerability of transportation systems.

This contributed volume covers all relevant aspects of road vehicle automation including societal impacts, legal matters, and technology innovation from the perspectives of a multitude of public and private actors. It is based on an expert workshop organized by the Transportation Research Board at Stanford University in July 2013. The target audience primarily comprises academic researchers, practitioners and professionals. Higher levels of road vehicle automation are considered beneficial for road safety, energy efficiency, productivity, convenience and social inclusion. The necessary key technologies in the fields of object-recognition systems, data processing and infrastructure communication have been consistently developed over the recent years and are mostly available on the market. This book provides a comprehensive overview of the current state of the art, and discusses the challenges and opportunities associated with road vehicle automation. It includes a range of case studies, and presents a substantial research and development, e.g. with interactive maps, data processing, functional safety and the fusion of different data sources. Driven by stakeholders in the IT industry, intensive efforts to accelerate the introduction of road vehicle automation are currently underway.

This book explores the challenges and opportunities in its 2030 SDGs. Cities and, on a smaller scale, neighborhoods, building managers and firms are now adopting technologies and information systems to help achieve the energy, economic, social and environmental transition. This volume gathers contributions on the key organizational success factors for this transition. To do so, it offers a range of technical and technological solutions from multiple perspectives. The goal is to develop a framework that successfully apply information systems to organizational and environmental issues for smart cities and smart buildings. Accordingly, the book addresses living-lab experiment evaluation techniques, and provides critical analyses of the role of the environment, context and users’ behavior in the design of smart cities and smart buildings.

Handbook of Human Factors for Automated, Connected, and Intelligent Vehicles Subject Guide: Ergonomics & Human Factors Automobile crashes are the seventh leading cause of death worldwide, resulting in over 1.25 million deaths yearly. Automated, connected, and intelligent vehicles have the potential to reduce crashes significantly, while also reducing congestion, carbon emissions, and increasing road capacity. This new handbook serves a diverse community of stakeholders, including human factors researchers, transportation engineers, regulatory agencies, automobile manufacturers, fleet operators, driving instructors, vulnerable road users, and special populations. It provides information about the human driver, other road users, and human-automation interaction in a single, integrated volume. It covers the latest research on human factors for automated, connected, and intelligent vehicles. Offers a broad treatment of the critical issues associated with the driver in mind. Presents an understanding of the human factors issues that are central to the public acceptance of these automated, connected, and intelligent vehicles. Leverages lessons from other domains in understanding human interactions with automation. Sets the stage for future research by defining the space of unexplored questions.

HCI in Mobility, Transport, and Automotive Systems. Automated Driving and In-Vehicle Experience Design

Rail Transportation Systems, Design Automation for Transport Systems, Freight and Passenger Transport Systems, Road Transportation Challenges and Systems for the Next Decade

Benchmarking Intermodal Freight Transport

Promoting Innovation and Participation

Social and Technological Evolution Across Maritime, Road, Rail, and Aviation Domains

Driver Reactions to Automated Vehicles focuses on the design and evaluation of the handover to and from driver and the automobile. The authors present evidence from studies in driving simulators and on the open roads to show that handover times are much longer than anticipated by previous research. In the course of the studies, Eriksson and Stanton develop compelling evidence to support the use of driving simulators for the study of handovers. They also develop guidelines for the design of handover strategies and show how this improves driver takeover of vehicle control. Features Provides a history of automobile automation Offers a contemporary analysis of the state of automobile automation Includes novel approaches in examining driver-automation interaction Presents studies of automation in driving simulators Includes on-road studies of driver automation Covers guidelines for design of vehicle automation Automated vehicles are set to transform the world. Automated driving vehicles are here already and undergoing serious testing in several countries around the world. This book explains the technologies in language that is easy to understand and accessible to all readers. It covers the subject from several angles but in particular shows the links to existing ADAS technologies already in use in all modern vehicles. There is a lot of hype in the media at the moment about autonomous or driverless cars, and while some manufacturers expect to have vehicles available from 2020, they will not soon take over and it will be some time before they are commonplace. However, it is very important to be ready for the huge change of direction that automated driving will take. This is the first book of its type available and complements Tom Denton’s other books.

More and more the most traditional and typical applied ergonomics issues of the activities related to sea shipping, vehicle driving, and flying are required to deal with some emerging topics related to the growing automatism and manning reduction, the ICT’s advances and pervasiveness, and the new demographic and social phenomena, such as aging or multiculturalism. With contributions from expert researchers, professionals, and doctoral students from a wide number of countries such as Australia, Austria, Canada, Italy, Germany, the Netherlands, Norway, Sweden, UK and USA, this multi-contributed book will explore traditional and emerging topics of Human Factors centered around the maritime, road, rail, and aviation transportation domains. This book presents works from world-class experts from academia, industry, and national agencies representing countries from across the world focused on automotive fields for in-vehicle signal processing and safety. These include cutting-edge studies on safety, driver behavior, infrastructure, and human-to-vehicle interfaces. Vehicle Systems, Driver Modeling and Safety is appropriate for researchers, engineers, and professionals working in signal processing for vehicle systems, next generation system design from driver-assisted through fully autonomous vehicles.

Bringing Citizens Closer Together

Human Factors in Transportation

A Practical Guide for Design and Evaluation

Road Vehicle Automation

The Future of Automated Freight Transport

Implementing Automated Road Transport Systems in Urban Settings

This book takes a look at fully automated, autonomous vehicles and discusses many open questions: How can autonomous vehicles be integrated into the current transportation system with diverse users and human drivers? Where do automated vehicles fall under current legal frameworks? What risks are associated with automation and how will society respond to these risks? How will the marketplace react to automated vehicles and what challenges facing CAVs and MaAs? Experts from Germany and the United States define key societal, engineering, and mobility issues related to the automation of vehicles. They discuss the decisions programmers of automated vehicles must make to enable vehicles to perceive their environment, interact with other road users, and choose actions that may have ethical consequences. The authors further identify expectations and concerns that will form the basis for individual and societal acceptance of autonomous driving. While the safety benefits of such vehicles are tremendous, the authors demonstrate that these benefits will only be achieved if vehicles have an appropriate safety concept at the heart of their design. Realizing the potential of automated vehicles to reorganize traffic and transform mobility of people and goods requires similar care in the design of vehicles and networks. By covering all of these topics, the book aims to provide a current, comprehensive, and scientifically sound treatment of the emerging field of “autonomous driving”.

This book discusses vehicular communication systems, IoT, intelligent transportation systems and the Internet of Vehicles, and also introduces destination marketing in a structured manner. It is primarily intended for research students interested in emerging technologies for connected Internet of Vehicles and intelligent transportation system networks; academics in higher education institutions, including universities and vocational colleges; IT professionals; policy makers; and legislators. The book can also be used as a reference resource for both undergraduate and graduate studies. Written in plain and simple language, it describes new concepts so that they are accessible to readers without prior knowledge of the field.

This book explores the emerging topics of Human Factors centered around the maritime, road, rail, and aviation transportation domains. It offers a unique overview of current applications, developments and future perspectives. The subject of automation is not covered extensively in the existing literature on freight transport and this book aims to fill the gap. The book of Infrastructure for a Safe Transition to Automated Driving contextualizes the latest vehicle and road automation research and technology, focusing on the future role of road infrastructures. The book analyzes the problems an uncontrolled transition will pose and examines ways forward, covering risk, safety, and the influence of human factors in automated vehicles. Automated transport researchers, traffic engineers, and transport and city planners will find the book to be a great resource for addressing the complexity of the period during which both human-driven and automated cars will coexist. This integrated vision of different approaches to vehicle automation will help move the technology forward in a thought-provoking manner. Introduces the SAE standard, the levels of automation it defines, and the concept of new road infrastructures

Addresses infrastructural and governance challenges and opportunities for automated vehicles Includes learning tools such as chapters overviews, summaries, and a glossary

Theory, Practice, and Modeling

Dynamics in Logistics

Proceedings of the AHFE 2019 International Conference on Human Factors in Transportation, July 24-28, 2019, Washington D.C., USA

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New Views on Automation

Glossary for Transport Statistics 2019 5th edition

AUTOMATED VEHICLES AND MAAS A topical overview of the issues facing automated driving systems and Mobility as a Service, identifies the obstacles to implementation and offers potential solutions Advances in cooperative and automated vehicle (CAV) technologies, cultural and socio-economic shifts, measures to combat climate change, social pressures to reduce road deaths and injuries, and changing attitudes toward self-driving cars, are creating new and exciting mobility scenarios worldwide. However, many obstacles remain and are compounded by the consequences of COVID-19. Mobility as a Service (MaAS) integrates various forms of public and private transport services into a single on-demand mobility service. Combining trains, cars, buses, bicycles, and other forms of transport, MaAS promises a convenient, cost-effective, and eco-friendly alternative to private automobiles. Automated Vehicles and MaAS: Removing the Barriers identifies the key challenges facing CAVs and MaAS. Written in a clear and accessible style, this timely volume summarizes recent research studies, describes the evolution of automated driving systems and MaAS, identifies the barriers to their widespread adoption, and proposes potential solutions to overcome and remove these barriers. The text focuses on the claims, realities, politics, new organizational roles, and implementation problems associated with CAVs and MaAS—providing industry professionals, policymakers, planners, administrators, and investors with a clear understanding of the issues facing the introduction of automated driving systems and MaAS. This important guide and reference: Provides an overview of recent progress, the current state of the art, and discussion of future objectives Presents both technical background and general overview of automated driving systems and MaAS Covers political, commercial, and practical issues, as well as technical and research content, yet suitable for non-specialists Helps readers make informed decisions and realistic estimates for implementing mobility solutions and new business models for transport services Includes an extensive bibliography with direct links to in-depth technical engineering and research information Automated Vehicles and MaAS: Removing the Barriers is an essential resource for transport providers, vehicle manufacturers, urban and transport planners, students of transportation, vehicle technology, and urban planning, and transport policy and strategy managers, advisors, and reviewers.

This book includes a set of selected best-extended papers from the 10th International Conference on Simulation and Modeling Technologies, Technologies and Applications (SIMULTECH 2020) that was held as an online event from July 8 to 10, 2020. The conference brought together researchers, engineers, and practitioners interested in methodologies and applications of modeling and simulation. New and innovative solutions are reported in this book. A selection was made after the conference, based also on the conference chairs assessment, reviewers’ assessment, quality of presentation, and audience interest, so that this book includes the extended and revised versions of the very best papers of the conference.

The Glossary for transport statistics was published for the first time in 1994 with the purpose of assisting member countries during the collection of data on transport using the Common Questionnaire developed by the UNECE, the International Transport Forum and Eurostat. It has since evolved to cover all areas of transport statistics.

This conference proceedings explores the future for interurban passenger transport. The first group of papers investigates what drives demand for for interurban passenger transport and infers how it may evolve in the future. The remaining papers investigate key challenges.

Advances in Human Factors of Transportation

Research and Evaluation

Urban Transit Systems and Technology

Organizing Smart Buildings and Cities

Systems, applications and implications

Energy-Efficient and Semi-automated Truck Platooning

The book consists of 20 chapters, each addressing a certain aspect of human-computer interaction. Each chapter gives the reader background information on a subject and proposes an original solution. This should serve as a valuable tool for professionals in this interdisciplinary field. Hopefully, readers will contribute their own discoveries and improvements, innovative ideas and concepts, as well as novel applications and business models related to the field of human-computer interaction. It is our wish that the reader consider not only what our authors have written and the experimentation they have described, but also the examples they have set.

This is the only current and in print book covering the full field of transit systems and technology. Beginning with a history of transit and its role in urban development, the book proceeds to define relevant terms and concepts, and then present detailed coverage of all urban transit modes and the most efficient system designs for each. Including coverage of such integral subjects as travel time, vehicle propulsion, system integration, fully supported with equations and analytical methods, this book is the primary resource for students of transit as well as those professionals who design and operate these key pieces of urban infrastructure.

This book continues the tradition of its predecessors “Automation, Communication and Cybernetics in Science and Engineering 2009/2010 and 2011/2012” and includes a representative selection of scientific publications from researchers at the institute cluster IMA/ZLW & IIU. IMA - Institute of Information Management in Mechanical Engineering ZLW - Center for Learning and Knowledge Management IIU - Associated Institute for Management Cybernetics e.V. Faculty of Mechanical Engineering, RWTH Aachen University The book presents a range of innovative fields of application, including: cognitive systems, cyber-physical production systems, robotics, automation technology, machine learning, natural language processing, data mining, predictive data analytics, visual analytics, innovation and diversity management, demographic models, virtual and remote laboratories, virtual and augmented realities, multimedia learning environments, organizational development and management cybernetics. The contributions selected reflect the fundamental paradigm shift toward an increasingly interdisciplinary research world – which has always been both the basis and spirit of the institute cluster IMA/ZLW & IIU.

Implementing Automated Road Transport Systems in Urban Settings provides valuable, objective, often difficult-to-obtain data, gleaned from the largest demonstration project on automated road transport systems (ARTS) in the world to date. The book features chapters authored by those deeply involved in CityMobil2—providing an easily accessible, cross-referenced resource for data and information on each aspect of the project. Chapters cover vehicle technical specifications, infrastructure analysis, operating systems, future scenario analysis, automated and conventional vehicle comparisons, and legal frameworks for system implementation. The book examines project field tests, showing the technology’s adaptability and different requirements based on geographic location. Government officials, researchers, and transportation practitioners require real-world data and analysis in their efforts to bring automated and intelligent transport systems into the mainstream. The CityMobil2 demonstration transported more than 60,000 passengers in seven European cities, providing immense amounts of feedback and data to be analyzed. The book provides international expert opinion on this real-world data, highlighting the strengths and weaknesses of the project, as well as providing comparisons to both past and planned ARTS demonstration initiatives. The technical specifications developed from the project will help cities considering similar ARTS initiatives. Presents real-world data and valuable analysis from CityMobil2, the world’s largest demonstration project on automated road transport systems (ARTS) Assists policy makers seeking to implement their own ARTS, providing technical specifications, infrastructure analysis, as well as legal considerations Features a companion website with links to CityMobil2 demonstration videos, as well as links to detailed project documents Presents findings from CityMobil2, such as effects on daily trips per capita, average journey distance, and occupancy rate, and how they can affect the development of

future ARTS projects Provides future ARTS scenario analysis, with information on planned, similar demonstrations

Automated Driving and Driver Assistance Systems

Automation, Communication and Cybernetics in Science and Engineering 2013/2014

Autonomous Driving

Automation, Communication and Cybernetics in Science and Engineering 2015/2016

Emerging Technologies for Connected Internet of Vehicles and Intelligent Transportation System Networks

The Future for Interurban Passenger Transport Bringing Citizens Closer Together

This paper collection is the second volume of the LNMOB series on Road Vehicle Automation. The book contains a comprehensive review of current technical, socio-economic, and legal perspectives written by experts coming from public authorities, companies and universities in the U.S., Europe and Japan. It originates from the Automated Vehicle Symposium 2014, which was jointly organized by the Association for Unmanned Vehicle Systems International (AUVSI) and the Transportation Research Board (TRB) in Burlingame, CA, in July 2014. The contributions discuss the challenges arising from the integration of highly automated and self-driving vehicles into the transportation system, with a focus on human factors and different deployment scenarios. This book is an indispensable source of information for academic researchers, industrial engineers, and policy makers interested in the topic of road vehicle automation.

Safety and Reliability - Safe Societies in a Changing World collects the papers presented at the 28th European Safety and Reliability Conference, ESREL 2018 in Trondheim, Norway, June 17-21, 2018. The contributions cover a wide range of methodologies and application areas for safety and reliability that contribute to safe societies in a changing world. These methodologies and applications include: - foundations of risk and reliability assessment and management - mathematical methods in reliability and safety - risk assessment - risk management - system reliability - uncertainty analysis - digitalization and big data - prognostics and system health management - occupational safety - accident and incident modeling - maintenance modeling and applications - simulation for safety and reliability analysis - dynamic risk and barrier management - organizational factors and safety culture - human factors and human reliability - resilience engineering - structural reliability - natural hazards - security - economic analysis in risk management Safety and Reliability - Safe Societies in a Changing World will be invaluable to academics and professionals working in a wide range of industrial and governmental sectors: offshore oil and gas, nuclear engineering, aeronautics and aerospace, marine transport and engineering, railways, road transport, automotive engineering, civil engineering, critical infrastructures, electrical and electronic engineering, energy production and distribution, environmental engineering, information technology and telecommunications, insurance and finance, manufacturing, marine transport, mechanical engineering, security and protection, and policy making.

Your timely source for more cost-effective and less disruptive solutions to your underground infrastructure needs. The North American Tunneling Conference is the premier biennial tunneling event for North America, bringing together the brightest, most resourceful, and innovative minds in the tunneling industry. It underscores the important role that the industry plays in the development of underground spaces, transportation and conveyance systems, and other forms of sustainable underground infrastructure. With every conference, the number of attendees and breadth of topics grows. The authors—expert and leaders in the industry—share the latest case histories, expertise, lessons learned, and real-world applications from around the globe. Crafted from a collection of 92 papers presented at the conference, this book takes you deep inside the projects. It includes sections on technology, planning, design, and case histories.

This book presents a specific technical solution, called intermodal transport, which became the basic technological solution that made it possible to provide global interregional transport. Every day, new technical, technological, and organizational solutions appear that significantly affect the further development of this industry. However, there are certain local differences between regions. In addition, an essential factor is the exchange of experience between scientists from different countries. Accordingly, the purpose of this monothematic book is to acquaint readers with the achievements of scientists dealing with this topic and living in different regions. Scientists and specialists from Poland, Germany, Great Britain, USA, Romania, Bulgaria, Russia, Italy, Kazakhstan, and Lithuania participated in the writing of individual chapters of this book. This book is intended for professionals, teachers, students, and others who are interested in new approaches to solving transport problems.

Hearings Before the Subcommittee on Unemployment and the Impact of Automation of the Committee on Education and Labor, House of Representatives, Eighty-seventh Congress, First Session. General Investigation Into Types and Causes of Unemployment ...

Practicality of automated highway systems

Human Computer Interaction

Handbook of Human Factors for Automated, Connected, and Intelligent Vehicles

New Developments

Proceedings of the 1st International Conference on Road Vehicle Automation Held at Vehicle Systems Research Centre, School of Engineering, Bolton Institute, Bolton, UK, 24-26, 1993

The interplay between smart urban technologies and city development is a relatively uncharted territory. Technology and the City aims to fill that gap, exploring the growing importance of smart technologies and systems in contemporary cities, and providing an in-depth understanding of both theoretical and practical aspects of smart urban technology adoption, and its implications for our cities. Beginning with an elaboration of the historical significance of technologies in economic growth, social progress and urban development, Yigitcanlar introduces the most prominent smart urban information technologies. The book showcases significant smart city practices from across the globe that uses smart urban technologies and systems most effectively. It explores the role of these technologies and asks how they can be adopted into the planning, development and management processes of cities for sustainable urban futures. This pioneering volume contributes to the conceptualisation and practice of smart technology and system adoption in our cities by disseminating both conceptual and empirical research findings with real-world best practice applications. With a multidisciplinary approach to themes of technology and urban development, this book is a key reference source for scholars, practitioners, consultants, city officials, policymakers and urban technology enthusiasts.

This book discusses the latest advances in research and development, design, operation and analysis of transportation systems and their complementary infrastructures. It reports on both theories and case studies on road and rail, aviation and maritime transportation. Further, it covers a wealth of topics, from accident analysis, vehicle intelligent control, and human-error and safety issues to next-generation transportation systems, model-based design methods, simulation and training techniques, and many more. A special emphasis is placed on smart technologies and automation in transport, and on the user-centered, ergonomic and sustainable design of transport systems. The book, which is based on the AHFE 2019 International Conference on Human Factors in Transportation, held on July 24-28, 2019, in Washington D.C., USA, mainly addresses the needs of transportation system designers, industrial designers, human-computer interaction researchers, civil and control engineers, as well as vehicle system engineers. Moreover, it represents a timely source of information for transportation policy-makers and social scientists whose work involves traffic safety,

management, and sustainability issues in transport.

Proceedings of ESREL 2018, June 17-21, 2018, Trondheim, Norway

The Role of Infrastructure for a Safe Transition to Automated Driving

Second International Conference, MobiTAS 2020, Held as Part of the 22nd HCI International Conference, HCII 2020, Copenhagen, Denmark, July 19-24, 2020, Proceedings, Part I

Concepts, Design and Implementation

Safety and Reliability - Safe Societies in a Changing World

Transportation Engineering