

1.	Record Nr.	UNISOBSOBE00042738
	Autore	Cosenza, Paolo
	Titolo	Aristotele e un caso di apofonia / Paolo Cosenza
	Pubbl/distr/stampa	Napoli : Giannini, 1997
	Descrizione fisica	300-313 p. ; 24 cm
	Lingua di pubblicazione	Italiano
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Estratto da: Atti dell'Accademia pontaniana, Nuova serie, vol. 45 (1996)
2.	Record Nr.	UNINA9911004730003321
	Autore	Avery Paul A
	Titolo	Disruptive Emerging Transportation Technologies
	Pubbl/distr/stampa	, : American Society of Civil Engineers, , 2022 ©2022
	ISBN	1-5231-4475-0 0-7844-8390-6
	Edizione	[1st ed.]
	Descrizione fisica	1 online resource (345 pages)
	Altri autori (Persone)	YangGen TangMing LiuHao KashyapGaurav CoreyJonathan DeyKakan EustaceDeogratias RahmanTawhidur QawasmehBaraah
	Disciplina	629.04
	Soggetti	Transportation - Technological innovations Traffic engineering - Technological innovations Industry 4.0
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa

Intro -- Book_5160_C000 -- Half Title -- Title Page -- Copyright Page -- Contents -- List of Chapter Authors -- Preface -- Acknowledgments -- Book_5160_C001 -- Chapter 1 : Emerging Technologies Impacting the Future of Transportation -- 1.1 Transportation Artificial Intelligence and Machine Learning -- 1.1.1 Introduction to Artificial Intelligence and Machine Learning Techniques for Transportation Application -- 1.1.2 Introduction to Transportation Systems Management and Operation -- 1.1.3 Use Cases for Artificial Intelligence and Machine Learning in Transportation -- 1.1.3.1 Traffic Control -- 1.1.3.2 Decentralized Congestion Mitigation -- 1.1.3.3 Smart Work Zone Management -- 1.1.3.4 Wrong-Way Driver Detection and Mitigation -- 1.1.3.5 Cybersecurity Threat Detection and Mitigation -- 1.1.4 Conclusions of Section 1.1 -- 1.2 Edge Computing, Fog Computing, and Cloud Computing Technologies -- 1.2.1 The Demand on the Existing Transportation Infrastructure -- 1.2.2 Cloud Computing as an Alternative Solution -- 1.2.3 Demand of Edge Computing -- 1.2.4 Overview of Edge Computing Technologies -- 1.2.5 Cloudlet -- 1.2.6 Mobile Edge Computing -- 1.2.7 "Fog" Computing -- 1.2.8 Development of Edge Computing and Associated Technologies -- 1.2.8.1 Edge Computing and Cloud Computing -- 1.2.8.2 Edge Computing and Internet of Things -- 1.2.8.3 Edge Computing and 5G -- 1.2.9 Transportation Scenarios of Applying Edge Computing -- 1.2.10 Building Decentralized ITS Infrastructure -- 1.2.11 Impact of Edge Computing on Connected and Automated Vehicle Roadside Infrastructure Migration -- 1.2.12 Summary of Section 1.2 -- 1.3 Fifth-Generation Innovative Communications Technology -- 1.3.1 Review of 5G Data Services -- 1.3.2 Impact of 5G Data Services on Smart Transportation Infrastructure Enhancement. -- 1.3.2.1 Enhanced Mobile Broadband Service Impact -- 1.3.2.2 Massive Machine-Type Communications Service Impact -- 1.3.2.3 Ultrareliable and Low-Latency Communications Service Impact -- 1.3.3 Impacts of 5G Data Services on Connected and Automated Vehicle Migration -- 1.3.4 Impact of Continuous Evolution on 5G Standards -- 1.3.5 Testing and Demonstration of 5G Cellular V2X -- 1.3.6 Challenges in the United States with 5G Cellular V2X -- 1.3.7 Summary of Section 1.3 -- 1.4 Design and Development of Virtual Reality-Based Driving Simulation -- 1.4.1 Virtual Reality -- 1.4.2 Simulation of the Real World -- 1.4.3 Interactivity and Interface -- 1.4.4 Hardware -- 1.4.5 Software and Scenario Creation -- 1.4.5.1 Planning Stage -- 1.4.5.2 VR Creation Stage -- 1.4.5.3 Data Collection and Analysis -- 1.4.6 Demonstrated Study of Urban Mobility in Driving Simulation -- 1.4.7 Conclusion and Challenges to Section 1.4 -- 1.5 Applied Internet of Things Technologies in Transportation -- 1.5.1 Overviewing of Internet of Things Technologies -- 1.5.2 IoTs Communication Technologies and Protocols -- 1.5.3 Standardization Migration of Internet of Things Technologies -- 1.5.3.1 Internet of Things Sensors -- 1.5.3.2 Internet of Things Supporting Cloud Services and Application Layer Protocols -- 1.5.3.3 Internet of Things Application Domains -- 1.5.3.4 Linking Internet of Things with Other Technologies -- 1.5.3.5 Impact of 5G Migration -- 1.5.3.6 Impact of Edge Computing -- 1.5.4 Transportation Scenarios of Applying Internet of Things -- 1.5.4.1 Transportation Infrastructure Monitoring and Asset Management by

Internet of Things -- 1.5.4.2 Bridge Monitoring by Internet of Things
-- 1.5.4.3 Smart City and ITS Applications with Internet of Things.
1.5.4.4 Connected and Automated Vehicles and Internet of Things --
1.5.5 Conclusion of Section 1.5 -- References -- Book_5160_C002 --
Chapter 2 : Surface Transportation Automation -- 2.1 Concepts of
Vehicles in Compliance with Society of Automobile Engineers
Automation Levels -- 2.1.1 Society of Automobile Engineers
Automation Levels -- 2.1.2 Connected Vehicle -- 2.1.3
Autonomous Vehicle -- 2.1.4 Cooperative Vehicles with Automation
-- 2.1.5 Autonomous Shuttle -- 2.1.5.1 Operation Design Domain
-- 2.1.5.2 Deployment of Autonomous Vehicles/Shuttles -- 2.1.5.3
Autonomous Shuttle as Micro Transit -- 2.2 Key Supportive Systems
of Connected Vehicles -- 2.2.1 Safety Systems -- 2.2.2 Mobility
Systems -- 2.2.3 Environment Systems -- 2.3 Key Design Elements
of Autonomous Vehicles -- 2.3.1 Perception -- 2.3.2 Navigation --
2.3.3 Localization -- 2.3.4 Command and Control -- 2.3.5 Health
Monitoring -- 2.3.6 Behavior Architecture -- 2.3.7 World Model --
2.3.8 Advantages of Lower Levels of Automated Driving -- 2.3.8.1
Collision Avoidance and Emergency Braking -- 2.3.8.2 Steering and
Lane Keeping -- 2.3.8.3 Bus Platooning -- 2.3.8.4 Managed Lanes
for Automated Shuttles -- 2.4 Distributed Ledger Technologies for
Connected and Autonomous Vehicle Systems -- 2.4.1 An Introduction
to Distributed Ledger Technology -- 2.4.2 Use of Distributed Ledger
Technology in Transportation -- 2.5 Application of Transportation
Automation Technologies -- 2.5.1 Connected and Automated Vehicle
Applications -- 2.5.2 Mobility Smart Contracts -- 2.5.3 Cooperative
Driving Automation -- 2.5.4 Security Considerations -- 2.6 Driving
Automation Definition and Autonomous Vehicle Laws -- 2.7 Summary
-- References -- Book_5160_C003 -- Chapter 3 : Autonomous Vehicle
Testing -- 3.1 Introduction.
3.2 Autonomous Vehicle Technology Testing -- 3.3 Mechanical
Testing -- 3.3.1 Safety Systems -- 3.3.2 Engine and Drivetrain --
3.4 Software and Cyber Security Data Testing -- 3.4.1 Driving Model
-- 3.4.2 Sensor Interfaces -- 3.4.3 Cybersecurity -- 3.4.4 Cyber
Data Testing -- 3.4.5 System of Software Systems Testing -- 3.5
Combined System Testing -- 3.6 Complete Vehicle Testing -- 3.7
System of Systems Testing -- 3.8 Version Testing -- 3.9 Simulated
versus Real-World Testing -- 3.10 Analysis Frameworks -- 3.11
Software Simulation -- 3.11.1 Design Simulation -- 3.11.2 Software
in the Loop Simulation -- 3.11.3 Hardware in the Loop Simulation --
3.11.4 Driving Simulator -- 3.11.5 Environment Simulation --
3.11.6 Virtual Reality-Based Simulation -- 3.12 DOT-Approved AV
Proving Grounds -- 3.13 Testing Facilities -- 3.13.1 MCity
(Michigan) -- 3.13.2 Transportation Research Center (Ohio) -- 3.13.3
Area X.O (Ottawa, Canada) -- 3.13.4 GoMentum Station (California)
-- 3.13.5 Automated Driving Systems for Rural America (Iowa) --
3.14 Upcoming Testing Facilities -- 3.14.1 SunTrax (Florida) --
3.14.2 Curiosity Lab (Georgia) -- 3.15 Current Deployments -- 3.16
Impact of Policies on AV Testing -- 3.17 Critical AV Testing Issues for
Future Deployment -- 3.18 Summary -- References --
Book_5160_C004 -- Chapter 4 : Emerging Delivery and Mobility
Services -- 4.1 Automated Delivery and Logistics -- 4.1.1
Background -- 4.1.2 Benefits of Automation of Delivery and Logistics
-- 4.1.3 Automated Delivery and Logistic Applications -- 4.1.3.1
Last-Mile Transportation -- 4.1.3.2 Automated Freight Ports --
4.1.3.3 Automated Warehouse Management -- 4.1.3.4 Automated
Fleet Management -- 4.1.3.5 Automated Reverse Logistics -- 4.1.4
Technology in Automated Delivery and Logistics.

4.1.4.1 Technologies Used in Freight Delivery -- 4.1.4.2 Technology Used in Warehouse Management -- 4.1.4.3 Future Technologies in Automated Delivery and Logistics -- 4.1.5 Policy Considerations -- 4.1.6 Future Research Directions -- 4.2 Mobility as a Service -- 4.2.1 Role of Mobility as a Service in the Context of Smart Cities -- 4.2.2 Implementation Features of Mobility as a Service -- 4.2.2.1 Core Characteristics of Mobility as a Service -- 4.2.2.2 Mobility as a Service Integration -- 4.2.2.3 Key Elements of Mobility as a Service Ecosystem -- 4.2.3 Review of Mobility as a Service Initiatives around the World -- 4.2.4 Application of Technologies in Mobility as a Service -- 4.2.5 Potential Research Areas -- 4.2.5.1 Research Needs for Understanding Customers -- 4.2.5.2 Research Needs for Business Models -- 4.2.5.3 Research Needs for Policy Implications -- 4.3 Mobility on Demand -- 4.3.1 Importance of Mobility on Demand Services -- 4.3.1.1 Mobility Needs -- 4.3.1.2 Travel Behaviors -- 4.3.1.3 Existing Transportation Services -- 4.3.2 Implementation Features of Different Mobility on Demand Business Models for Passenger and Goods Movement -- 4.3.2.1 Business-to-Consumer -- 4.3.2.2 Business-to-Government -- 4.3.2.3 Business to Business -- 4.3.2.4 Peer-to-Peer Mobility Marketplace -- 4.3.2.5 Peer-to-Peer Delivery Marketplace -- 4.3.3 Technologies Enabling Mobility on Demand Services -- 4.3.4 Contribution of Mobility on Demand in Shared Mobility Ecosystem -- 4.3.5 Future Research Direction -- 4.4 Summary -- References -- Book_5160_C005 -- Chapter 5 : Shared Sustainable Mobility -- 5.1 Shared Vehicle Services -- 5.1.1 Background -- 5.1.2 Shared Vehicle Services and Transformed Mobility Patterns -- 5.1.2.1 Ride-Sharing Service Models -- 5.1.2.2 Ride-Sharing Policy Considerations. 5.1.2.3 Carsharing Service Models.

Sommario/riassunto

This book provides a forward-looking overview of the relevant 4IR technologies and their potential impacts on future disruptive emerging transportation.
