

1. Record Nr.	UNINA9911007282703321
Autore	Umar Zakir Abdul Hamid
Titolo	Autonomous, connected, electric and shared vehicles : disrupting the automotive and mobility sectors // by Umar Zakir Abdul Hamid, PhD
Pubbl/distr/stampa	Warrendale, Pennsylvania : , : SAE International, , 2022
ISBN	9781523149520 1523149523 9781468603484 1468603485 9781468603491 1468603493
Edizione	[1st ed.]
Descrizione fisica	1 online resource (1 PDF (xviii, 193 pages)) : illustrations
Disciplina	629.2
Soggetti	Automobiles - Technological innovations Automated vehicles Electric vehicles Automobile industry and trade TRANSPORTATION / Automotive / General TECHNOLOGY & ENGINEERING / Automotive Road and motor vehicles: general interest Automotive technology and trades
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Foreword / by Dr. Rahul Razdan -- Foreword / by Daniel Watzenig -- Preface and Acknowledgments -- Section 1: Introduction -- Chapter 1 -- Section 2: ACES as the future mobility: background -- Chapter 2. Recent events and progress propelling ACES growth -- Section 3: Concise overview of ACES -- Chapter 3. Autonomous vehicles: concise overview -- Chapter 4. Connected vehicles: concise overview -- Chapter 5. Electric vehicles: concise overview -- Chapter 6. Shared mobility: concise overview -- Section 4: Disruptions, challenges, and benefits of ACES -- Chapter 7. Disruptions caused by ACES mobility -- Chapter 8. Potential challenges of ACES -- Chapter 9. Potential benefits

of ACES -- Section 5: Summary and conclusions -- CHAPTER 10.
Summary: "ACES is imminent. it is a bumpy road. cross-organizational
collaborations are a necessity." -- Index -- About the Author.

Sommario/riassunto

We are at the beginning of the next major disruptive cycle caused by computing. In transportation, the term Autonomous, Connected, Electric, and Shared (ACES) has been coined to represent the enormous innovations enabled by underlying electronics technology. The benefits of ACES vehicles range from improved safety, reduced congestion, and lower stress for car occupants to social inclusion, lower emissions, and better road utilization due to optimal integration of private and public transport. ACES is creating a new automotive and industrial ecosystem that will disrupt not only the technical development of transportation but also the management and supply chain of the industry. Disruptions caused by ACES are prompted by not only technology but also by a shift from a traditional to a software-based mindset, embodied by the arrival of a new generation of automotive industry workforce. In *Autonomous, Connected, Electric and Shared Vehicles: Disrupting the Automotive and Mobility Sectors*, Umar Zakir Abdul Hamid provides an overview of ACES technology for cross-disciplinary audiences, including researchers, academics, and automotive professionals. Hamid bridges the gap among the book's varied audiences, exploring the development and deployment of ACES vehicles and the disruptions, challenges, and potential benefits of this new technology. Topics covered include: Recent trends and progress stimulating ACES growth and development; ACES vehicle overview; Automotive and mobility industry disruptions caused by ACES; Challenges of ACES implementation; Potential benefits of the ACES ecosystem While market introduction of ACES vehicles that are fully automated and capable of unsupervised driving in an unstructured environment is still a long-term goal, the future of mobility will be ACES, and the transportation industry must prepare for this transition. *Autonomous, Connected, Electric and Shared Vehicles* is a necessary resource for anyone interested in the successful and reliable implementation of ACES. "ACES are destined to be a game changers on the roads, altering the face of mobility." Daniel Watzenig, Professor Graz University of Technology, Austria.
