

# **Lecture Notes in Mobility**

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Gereon Meyer, Berlin, Germany

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Gereon Meyer · Sven Beiker  
Editors

# Road Vehicle Automation 5

 Springer

*Editors*

Gereon Meyer  
VDI/VDE Innovation + Technik GmbH  
Berlin, Germany

Sven Beiker  
Stanford University  
Palo Alto, CA, USA

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# Preface

As the field of road vehicle automation continues to evolve at a seemingly accelerated pace, experts and the general public alike get to experience the first public deployments and also setbacks of this very promising technology. We all learn from those diverse practical experiences through automated shuttle services, fleets of automated ride-hailing vehicles, and increased levels of automation in advanced driver assistance systems. And in this, it also becomes very evident that it will be essential to reach societal consensus about the safety level expected from automated vehicles, translate this into standards for the technical systems, and apply those standards in legislation. Probably, this task should be as important for policy makers in mapping out regulation as it is for businesses to generate excitement around the promise of shared automated vehicles.

We are excited to say that the multifaceted content of the books on Road Vehicle Automation that we have published over the past 5 years as part of the Springer series Lecture Notes in Mobility has contributed already significantly to understanding these issues in a comprehensive way. We continue to be amazed by the topics discussed in the papers, the enthusiasm and diligence of the authors, and the great overview on the topic of vehicle automation, which we always get—it is an honor to edit this book, and we thoroughly thank all contributors and supporters. Through the efforts of so many, this annual publication has become literally the log for the automated driving movement, which probably many of us will consult well into the future and remember how we actually got to where we will be with automated driving in 2020, 2035, 2030, and beyond.

Today, we are proud to present the fifth edition of the Road Vehicle Automation books. This time we have a comprehensive overview of activities in the USA, Europe, and Asia; we also get invaluable insights into the technology, business, policy, and human factors of automated driving. The chapters are all based on oral and poster presentations of the Automated Vehicles Symposium (AVS) 2017 in San Francisco, California (USA). We feel deeply indebted to Jane Lapin, Steve Shladover, and Bob Denaro for their great support of organizing this outstanding conference and afterward in preparing this book; their foreword is very much appreciated. Of course, this book would not be possible without the immense work

done by Jan-Philip Schmidt and Petra Jantzen from Springer and Sebastian Lugert from VDI/VDE-IT as they made sure everything is on schedule so that you can hold this book in your hands today. Kind support by the Association of Automated Vehicle Systems International (AUVSI) is greatly appreciated as well.

And finally, a big thank-you goes again to all authors, who very often in their spare time write and again edit their contributions, which is what makes this publication what it is—one of the most-read publications in automated driving of our times: For the first four volumes, Springer has counted almost 200 thousand chapter downloads, and access is provided by 300 libraries around the globe.

Berlin, Germany  
Palo Alto, USA  
May 2018

Gereon Meyer  
Sven Beiker

# Contents

<b>Introduction: The Automated Vehicles Symposium 2017</b> . . . . .	1
Steven E. Shladover, Jane Lappin and Robert P. Denaro	
<b>Part I Public Sector Activities</b>	
<b>SIP-adus: An Update on Japanese Initiatives for Automated Driving</b> . . . . .	17
Yoichi Sugimoto and Seigo Kuzumaki	
<b>European Roadmaps, Programs, and Projects for Innovation in Connected and Automated Road Transport</b> . . . . .	27
Gereon Meyer	
<b>Drive Sweden: An Update on Swedish Automation Activities</b> . . . . .	41
Jan Hellåker, Jesper Gunnarson and Philip King	
<b>Part II Human Factors and Challenges</b>	
<b>Research to Examine Behavioral Responses to Automated Vehicles</b> . . . . .	53
Johanna Zmud, Felipe Dias, Patricia Lavieri, Chandra Bhat, Ram Pendyala, Yoram Shiftan, Maren Outwater and Barbara Lenz	
<b>Judging a Car by its Cover: Human Factors Implications for Automated Vehicle External Communication</b> . . . . .	69
W. Andy Schaudt and Sheldon Russell	
<b>Training and Education: Human Factors Considerations for Automated Driving Systems</b> . . . . .	77
Anuj K. Pradhan, John Sullivan, Chris Schwarz, Fred Feng and Shan Bao	
<b>Automated Vehicles (AVs) for People with Disabilities</b> . . . . .	85
Sudharson Sundararajan, Mohammed Yousuf, Murat Omay, Aaron Steinfeld and Justin M. Owens	

**External Vehicle Interfaces for Communication with Other Road Users?** . . . . . 91  
 Azra Habibovic, Jonas Andersson, Victor Malmsten Lundgren, Maria Klingegård, Cristofer Englund and Sofia Larsson

**Part III Technology, Energy and Business Perspectives**

**Assessing Energy Impacts of Connected and Automated Vehicles at the U.S. National Level—Preliminary Bounds and Proposed Methods** . . . . . 105  
 Thomas S. Stephens, Josh Auld, Yuche Chen, Jeffrey Gonder, Eleftheria Kontou, Zhenhong Lin, Fei Xie, Abolfazl (Kouros) Mohammadian, Ramin Shabanpour and David Gohlke

**Deployment of Automated Driving as an Example for the San Francisco Bay Area** . . . . . 117  
 Sven A. Beiker

**Shared Automated Vehicle (SAV) Pilots and Automated Vehicle Policy in the U.S.: Current and Future Developments** . . . . . 131  
 Adam Stocker and Susan Shaheen

**Deployment of Automated Trucking: Challenges and Opportunities** . . . . . 149  
 Johan Engström, Richard Bishop, Steven E. Shladover, Michael C. Murphy, Laurence O’Rourke, Tom Voegel, Bob Denaro, Richard Demato and Divya Demato

**The Road Ahead—How a 100-Year Old Mobility Service Transforms into a World of Automated Driving** . . . . . 163  
 Suna Taymaz

**Automated Vehicles Cybersecurity: Summary AVS’17 and Stakeholder Analysis** . . . . . 171  
 Jonathan Petit

**Part IV Vehicle Systems and Technologies Development**

**PEGASUS—First Steps for the Safe Introduction of Automated Driving** . . . . . 185  
 Hermann Winner, Karsten Lemmer, Thomas Form and Jens Mazzega

**Testing Connected and Automated Vehicles (CAVs): Accelerating Innovation, Integration, Deployment and Sharing Results** . . . . . 197  
 Mathieu Joerger, Cynthia Jones and Valerie Shuman



**Challenges and Opportunities for the Intersection of Vulnerable Road Users (VRU) and Automated Vehicles (AVs)** . . . . . 207  
 Justin M. Owens, Laura Sandt, Justin F. Morgan, Sudharson Sundararajan, Michael Clamann, Dinesh Manocha, Aaron Steinfeld, Tanvi Maheshwari and Jill F. Cooper

**Part V Transportation Infrastructure and Planning**

**Autonomous Vehicles and the Built Environment: Exploring the Impacts on Different Urban Contexts** . . . . . 221  
 William Riggs, Nico Larco, Gerry Tierney, Melissa Ruhl, Josh Karlin-Resnick and Caroline Rodier

**Enhancing the Validity of Traffic Flow Models with Emerging Data** . . . . . 233  
 Rita Excell, Jiaqi Ma, Steven Shladover, Daniel Work, Michael Levin, Samer H. Hamdar, Meng Wang, Stephen P. Mattingly and Alireza Talebpour

**Making Automation Work for Cities: Impacts and Policy Responses** . . . . . 243  
 Dirk Heinrichs, Siegfried Rupperecht and Scott Smith

**Correction to: Research to Examine Behavioral Responses to Automated Vehicles** . . . . . E1  
 Johanna Zmud, Felipe Dias, Patricia Lavieri, Chandra Bhat, Ram Pendyala, Yoram Shiftan, Maren Outwater and Barbara Lenz