



Move with SAE Mobilus®

Technical Resource Platform

September 2024 Newsletter



Newly-added

The following is a summary of all publications added to the SAE Mobilus technical resource platform in August 2024. Click below and the SAE Mobilus search results for the content type selected will populate.

SAE Solutions

- [Aerospace Standards](#) (20)
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Additional SAE Solutions

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- [SAE MobilityRxiv®](#)

Please note, your ability to access the publications listed is dependent on your subscription to SAE Mobilus. If a publication is outside of your subscription, please contact your organization's SAE Mobilus administrator or Infodoc Srl (mailto: servizi@infodoc.it).



Learning Opportunities

[SAE Mobilus Spotlight](#)

September 24th 2024 | 9 a.m. EST

Discover what's new in under 30 minutes. Join us for a highlight of the best practices in searching the standards, the latest research, and what organizations are publishing in the field. We will also discuss the new search features and experimental AI search.

[Save My Seat](#)



Aerospace Standards & Aerospace Material Specifications

Aerospace Standards and Aerospace Materials Specifications [30]

- [AMS7030 Aluminum Alloy, 10.0Si - 0.35Mg Stress Relieved, Hot Isostatic Pressed \(HIP\), Solution Treated and Artificially Aged, Produced by Laser Powder Bed Fusion \(L-PBF\)](#)
- [AMS3023D Fluid, Reference for Testing Polyol Ester \(and Diester\) Resistant Material](#)
- [AS5681C Minimum Operational Performance Specification for Remote On-Ground Ice Detection Systems](#)
- [ARP924B Specification and Inspection of Glass for Integrally Lighted Aerospace Instruments](#)
- [ARP6320B Procedure for the Continuous Sampling and Measurement of Nonvolatile Particulate Matter Emissions from Aircraft Turbine Engines](#)
- [AS6286D Aircraft Ground Deicing/Anti-Icing Training and Qualification Program](#)

[View All](#)



Ground Vehicle Standards

Ground Vehicle Standards [18]

- [J3298 202407 Artificial Intelligence Data for Ground Vehicle Applications](#)
- [J3161 202407 LTE Vehicle Everything LTE V2X Deployment Profiles Radio Parameters Single Radio Channel Multi Service Coexistence](#)
- [J3101-1 202407 Hardware Protected Security Environment - Application Programming Interface Analysis - Information Report](#)
- [J1614 202407 Wiring Distribution Systems for Off-Road, Self-Propelled Work Machines](#)

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Technical Papers

Technical Papers [22]

- [Development of a Predictive Model for Maintenance Strategies of Automotive Parts Processing Equipment Based on Multi-Criteria Decision Analysis](#)
- [Optimizing Fused Deposition Modeling Process Parameters for Enhanced Build Time and Mechanical Strength](#)
- [Emergency Braking System: Verification of system behavior on commercial vehicles equipped with drum braking system](#)
- [Application of Neural Networks for Real-Time Decision Support in Virtual Approval of Brake Components](#)
- [Assets Maintenance Strategy Based on Operational Data Analysis](#)
- [Hybrid Survival Analysis Model for Predicting Automotive Component Failures](#)

[View All](#)



SAE Mobility Rxiv®

[SAE MobilityRxiv®](#)

This free online archive and sharing service provides English-language preprints in the mobility/transportation field, including ground vehicles, commercial vehicles, and aerospace and aviation.

- [Design and Analysis of an Ackermann Steering System for an Off-Road Electric Vehicle](#)

[Learn More](#)



Journal Articles

Journal Articles [20]

- [A Multi-Target Urban Transportation Structure Model under the Optimal Capacity Limitation of Road Networks](#)
- [Exploration of a Precise Traffic Restriction Policy on Urban River-Crossing Corridors: A Case Study in Changsha, China](#)
- [A Fatigue Damage Spectrum-Based Approach to Vibration Durability Test for Vehicle Batteries](#)
- [Optimizing Propulsion System in Various Drone Categories: A Comparative Experimental Study](#)
- [Uniaxial Stress and Strain Analysis of a Notched Component Made of Cast Irons](#)

[View All](#)



Edge Research Reports

EDGE Research Reports [3]

- [Next-gen Urban Buses: Autonomy and Connectivity](#)
- [Automated Vehicles and Infrastructure Enablers: Cybersecurity](#)
- [Navigating the Evolving Landscape of Safety Standards for Machine Learning-based Road Vehicle Functions](#)

[Hear from industry experts as they discuss emerging technologies and their challenges on the Mobility Frontier webinar series](#)

[View All](#)



Podcast

SAE Tomorrow Today Podcast [4]

- [Balancing Fleet Sustainability with Competitiveness](#)
- [Making the Most of the Curb](#)
- [Experience the Thrill of Going Electric](#)

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Professional Development

[Standards 101](#)

Engineers find that understanding what technical standards are and how they are used is vital to their career. By familiarizing yourself with these documents now, you are building a solid foundation to thrive in your professional life. SAE is committed to providing our future mobility experts with resources they need.

On-Demand no cost introductory videos on standards.

[Learn More](#)

[Autonomous Vehicle System and Control Architecture](#)

This course consists of asynchronous videos you'll work through at your own pace throughout each week, followed by a live-online synchronous experience each Friday. The live sessions are taught by Jeff Blackburn, who joins us from Ansys and comes with an extensive background in software engineering. Given the extremely rigorous nature of this program, optional office hours will be available weekly for added assistance.

September 16 – October 11 2024 9 AM – 11 AM ET Live Online

[Learn More](#)

[Bridging the Gap: What You Need to Know About the Revised ARP4754B](#)

This short course is a high-level introduction to the revised SAE standard ARP4754B and its guidelines of practice for aircraft and systems development. Learners will meet one of the developers of the standard and gain key insights only available from SAE, including how the new standard addresses the fundamental principles for the development of highly integrated aircraft systems. You'll get a look into the revised version which launched in December of 2023.

September 25 2024 2 am - 4 am ET Virtual

[Learn More](#)

[Product Development for AV and EV Reliability](#)

This course is developed for practicing engineers. The class will focus on the integration of reliability into product development for autonomous vehicles and electric vehicles. The integrated five-step reliability process covers: Define the Requirements, Design to the Requirements, Verify to the Requirements, Launch to the Requirements and Manufacture to the Requirements.

September 18 – 20 2024 8:30 AM to 4:30 PM ET Troy Michigan USA

[Learn More](#)



Book Spotlight



[Racing Toward Zero: The Untold Story of Driving Green](#)

Authors: Kelly Senecal and Felix Leach

Hear from the Authors, [listen in on Episode 97](#) of the SAE Tomorrow Today podcast as authors Senecal and Leach share further insights including why regulations and media hype pushing BEVs to the forefront are misguided.

How do we go green? The future requires a balanced approach to transportation. It's not a matter of choosing between combustion or electrification; it's combustion and electrification. As the authors say, "The future is eclectic." By harnessing the best qualities of both technologies, we will be in the best position to address our transportation future as quickly as possible.

[Read It!](#)



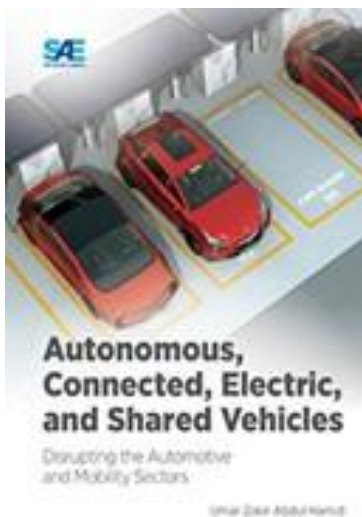
[Electric Vehicles: Theory and Design](#)

Author: Yiqing Yuan

Dive into the future of automotive engineering with our latest book, *Electric Vehicles: Theory and Design*. As the world shifts towards sustainable mobility, this indispensable guide offers a deep dive into the cutting-edge world of electric vehicles (EVs). Authored by an industry expert with a background in combustion engineering, this book bridges the gap between traditional automotive knowledge and the electrified future.

This book delivers up-to-date information on EVs and their essential components, including cutting-edge battery systems, propulsion technology, and intelligent subsystems. Plus, explore the latest trends in electrification, autonomous driving, connectivity, and shared mobility, and stay ahead of the curve in this rapidly evolving industry

Read It!



[Autonomous, Connected, Electric and Shared Vehicles: Disrupting the Automotive and Mobility Sectors](#)

Author: Umar Zakir Abdul Hamid

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.

Read It!



[Managing Electric Vehicle Power](#)

Author: Sam Davis

Managing Electric Vehicle Power provides complete coverage for understanding how best to utilize the primary power source across all the EV's Electric Control Units. Readers will also be introduced to the qualification standards of the Automotive Electronics Council (AEC). AEC standards are a 'one-time' qualification that typically takes place at the end of the development cycle

[Read It!](#)



Events

[Brake Colloquium & Exhibition – 42nd Annual](#)

September 15 – 18 2024 Grapevine TX USA

The Brake Colloquium & Exhibition is the premier gathering for all those passionate about braking technology. Whether you are an industry veteran, an engineer, a researcher or an emerging professional, this event is designed to educate, inspire, and connect. This is where experts, engineers and enthusiasts convene to discuss the latest developments in the ever-evolving world of braking systems.

[Learn More](#)

[COMVEC](#)

September 10 – 12, 2024, Schaumburg, Illinois USA

We are in the fast lane, driving toward a software-defined future. The commercial vehicle industry must come together to exchange ideas, get up to date on research and technology, and tackle challenges — so the world can continue to depend on us.

The 2024 technical program will be extended through the end of Thursday, September 12. This year's

executive tracks include: Software Defined Machines, Future Powertrain/Propulsion Challenges, and Solutions for Migration to Autonomy

In addition, there will be additional programming around Defense.

[Learn More](#)



Membership

SAE Membership and Community Engagement Information

Enjoy access to discounted technical resources, career advancement tools, networking opportunities and more as an SAE Member and Volunteer. (Not a member? [Join Us!](#))

Here are the latest happenings and benefits:

1. Introducing SAE's Engagement Hub, your new go-to destination for volunteer opportunities with SAE International! Discover ways to join our SAE Standards committees or participate in programs like the "Chat with the Experts" series. Visit [this link](#) to explore and get involved today.
2. [SAE Mentor Program](#) – Become an SAE Mentor and share your experience and industry knowledge with the next generation of SAE Members.

[Learn More](#)

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