

High Voltage Electrical Safety Training

Date:	On Request
Duration:	0.5 Days
Location:	Private Virtual or In-Person
Price:	On Request

Why SRES?

At SRES, our training courses are guided by industry professionals with extensive real-world experience, providing you with practical insights and knowledge to excel in the rapidly evolving fields of Functional Safety, Cybersecurity, and Responsible AI.

Course Overview:

This half-day training course is designed for professionals involved in automotive high voltage (HV) systems development. Participants will learn how to design and implement safety measures to protect against electrical hazards, following industry standards and regulations such as FMVSS 305, ECE R100, IEC 60529, IEC 60664, and SAE J1766 as well as show the interdependence to the automotive functional safety standard ISO 26262. The training covers the various layers of protection required to ensure safe HV system design, operation, and compliance.

Training Objectives:

- **Understand HV safety standards:** Learn how to design electrical systems compliant with key automotive HV safety standards and regulations, including SAE J1766, FMVSS 305, and ECE R100.

- **Apply multi-layered protection strategies:** Implement layers of protection to protect against electrical hazards like shock and system failure.
- **Optimize safety designs:** Ensure systems include essential physical, sneak circuit, electrical/electronic, and process protection layers for HV systems.

Agenda:

Introduction to High Voltage Electric Safety

- Overview of HV systems
- Importance of electrical safety

HV Safety Standards and Regulations

- SAE J1766
- FMVSS 305
- ECE R100
- IEC 60529
- IEC 60664
- ISO 26262

Layered Protection Strategies

- Physical Protection
- Sneak Circuit Protection
- Electrical/Electronic (E/E) Protection
- Process Protection

Case Studies

- Application of layered protection in real-world automotive HV systems