





e-Mobility













Power distribution

Machinery

Industrial automation

## **Functional safety and** cybersecurity certification training

kVA by UL provides public and private functional safety and cybersecurity trainings worldwide. At the conclusion of each session, participants have the option to achieve personal certification as a UL Certified Functional Safety Professional (UL-CFSP) or UL Cybersecurity Professional (UL-CCSP).

Certification allows individuals to showcase their specialized knowledge, credibility and expertise in safe product design and development. Additionally, certified professionals can attempt eXpert level certification after proving five years of relevant work experience in the field and completing a UL audit of competency.



### ISO 26262: Automotive

Over the course of three days, students will gain a deep understanding of the guiding safety principles that are used throughout the ISO 26262:2018 standard. Training topics include management of functional safety, concept phase, system-level development, hardware development, software development and supporting process.

#### ISO 26262: Semiconductor

This 2.5-day training is geared toward safety professionals looking for in-depth knowledge of ISO 26262-Part 11, which details the application of functional safety to semiconductors.

### ISO 21434: Automotive Cybersecurity

Engineers seeking to gain a better understanding of cybersecurity for automotive systems will learn about threats, risks, countermeasures and best practices in this two-day course.

# ISO 13849, IEC 62061, and the EU Machinery Directive

Standards covered in this 2.5-day course include ISO 13849, Safety of machinery – Safety-related parts of control systems, and IEC 62061, Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems.

### **IEC 61511**

This three-day training provides a comprehensive overview of the IEC 61511:2016 and ANSI/ISA 61511:2018 standard for the process industry. Design and manufacturing engineers will learn about the complete safety lifecycle for safety instrumented management and protection systems for integrated motor drives.

### UL 991/UL 1998

This unique two-day technical training course will give you in-depth exposure to UL's Functional Safety Standards: UL 991 and UL 1998. This course teaches you how to effectively use the Standards in a product's design phase, which is critical to its certification and acceptance.

### **IEC 61508**

Attendees from all industries developing safety-related electrical/electronic systems will be introduced to the IEC 61508:2010 standard during this three-day training course. Students will learn how to apply all aspects of the full seven-part functional safety standard for electronic safety-related systems, including hardware and software.

### Why choose UL?

From materials testing to supply chain management, new energy options to security and interoperability solutions, leverage our expertise and insights to navigate the global regulatory landscape and bring your products to market.

UL's global network of technical experts and state-of-the-art facilities, along with our long-standing relationships with regulatory authorities, partner laboratories and industry technical leaders, helps manufacturers gain the compliance credentials they need to compete in a more complex global supply chain.



**Knowledge you can trust** – Our experienced staff will support you from the initial design stage of product development through testing and production. Our experts can assist you in understanding the certification requirements for your specific markets.



**Speed and efficiency** – Our cost-effective systems and state-of-theart facilities cut through the red tape and help accelerate your time to market.



**Single-source provider** — UL meets all of your compliance needs and, by bundling safety, performance and interoperability services, also helps you save valuable time and money.



**Global reach and access** – Our global network of expert engineers helps you understand the various national and global requirements for your specific market application.

For more information, call 1.864.630.5373, email: kvasales@ul.com or visit kvausa.com.



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