

Programmable Electronic Systems in Safety Related Applications – Liftinstituut helps to train your employees



All the knowledge you need to get started with PESSRAL

PESSRAL is important because of the need to increase reliability and reduce production costs. Developing a programmable electronic safety system requires verification and validation of every step in the process. What do you need to do this? Terms like safety integrity level (SIL), random failures, systematic failures, safe failure fraction, hardware fault tolerance and PFH values are used in designing programmable electronic safety systems. They are also referred to in the PESSRAL and PESSRAE standards. The new Liftinstituut training courses cover all these aspects.

Achieving the required safety level

Time, energy and resources are required to create documentation and manage the complete process. The standards include SIL values for electronic safety devices, but what if the control system itself is the electronic safety device? How do you determine the required SIL when deviating from the harmonized standard? How do you achieve a specified SIL? And equally important, how can you be sure the required level is achieved?

All the information you need

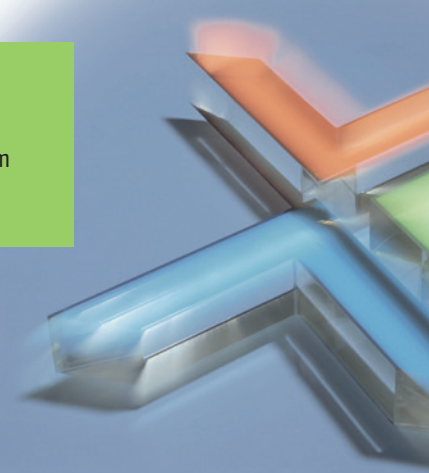
Our PESSRAL and PESSRAE training courses explain all the necessary terms. We provide the relevant people and departments with the know-how to deal with all the required steps in developing a PESS system. The training includes practical examples of PESS development issues.

Step-by-step approach

We provide a step-by-step approach integrating all aspects of the development process. Our training gives you the safety fundamentals along with a road map for dealing with the key issues you will encounter during the development of a PESS system.

More information?

For more information, please make an appointment with our account manager Dennis Lindeboom (phone +31 20 435 06 06) or send an email to contact@liftinstituut.com. You can also visit our website: www.liftinstituut.com



In-depth information on PESSRAL

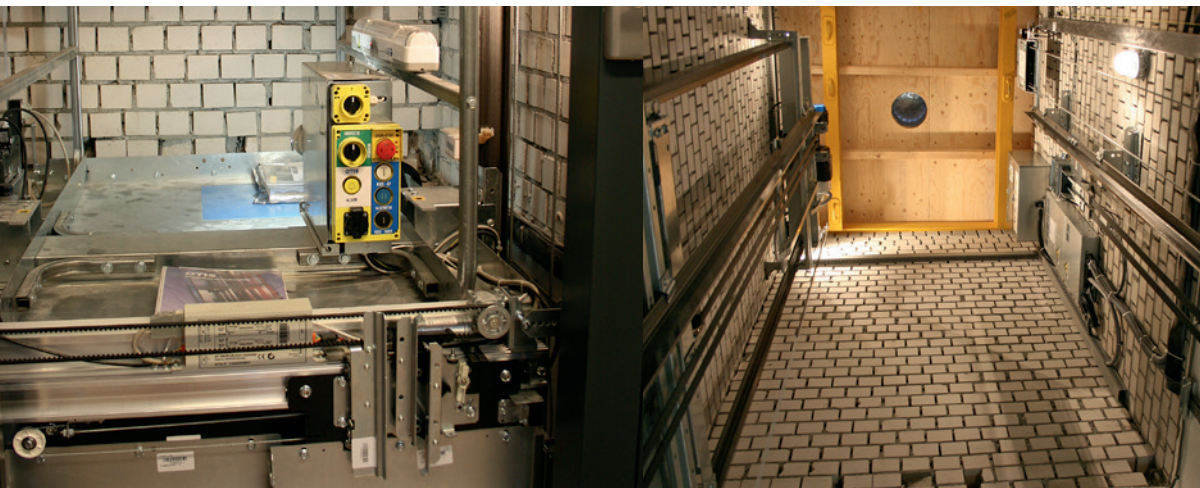
In the elevator and escalator industry, more and more systems comprise electronic components used to perform safety functions in lift installations.

Increased reliability

The need to increase reliability and reduce production and maintenance costs means that control and safety systems increasingly use programmable electronics. Today, safety-related programmable electronics are used in many sectors including the machine, automotive and process industries.

History

The European Committee for Standardization (CEN) issued the EN 81-1/2 A1 standard in 2003. Most companies avoided applying PESSRAL in line with this standard while others developed commercial safety components in order to familiarize themselves with the new norm. Manufacturers' interest increased with the introduction of EN 81-1/2 + A3 in 2010 since the inclusion of uncontrolled car movement protection (UCMP) meant that PESSRAL could be used to detect uncontrolled car movement. The EN 81-20 standard, issued and harmonized in 2014, will replace EN 81-1 and 2 in August 2017. This standard includes new requirements that will increase the need for PESSRAL. Issues here include multiple inspection control stations, monitoring of bridged door switches, car and door landing bypassing functionality and more.



General PESS standards in relation to lift and escalator standards

The related standards EN 81-series and EN 115-1 give SIL requirements for safety functions or refer to standards like the IEC 61508 series. If these systems are to be implemented effectively and safely, it is essential that the people responsible for the design have sufficient guidance on safety aspects to make the right decisions. These kinds of systems require a totally different approach compared to the development of a conventional safety system.

Want to know more?

Would you like more information about PESSRAL, product certification or training?
Call +31 (0)20 435 06 06 or visit our website: www.liftinstituut.com.

