

Risk Assessment and Safety Function Evaluation

The course will provide an introduction to risk assessment of mobile machinery and the evaluation of safety functions (using the SISTEMA tool).

The participants will be introduced to the Sauer-Danfoss risk assessment spread sheet, which supports the risk assessment/reduction process on machine level and the determination of PL, AgPL or SIL levels for safety-related parts of control systems. The course will give an introduction to the evaluation of safety functions, using the SISTEMA software tool. SISTEMA, a software tool from the German Institute IFA, provides developers and testers of safety-related machine control systems, comprehensive support in the evaluation of safety functions, in the context of EN ISO 13849.

The participants will get an in-depth view of how Sauer-Danfoss products may contribute to functional safety on mobile machinery.

During this course, we will work with examples of hydraulic/electrohydraulic safety functions for typical mobile machinery.

Keywords

EN ISO 12100, ISO 14121-2, EN ISO 13849, Risk Assessment, Safety Functions, SISTEMA evaluation tool.

Learning goals.

On completion of the workshop participants will be expected to:

- Understand the theory of risk assessment and risk reduction in accordance to EN ISO 12100:2010 and ISO 14121-2.
- Be able to contribute to the risk assessment and risk reduction process of mobile machinery.
- Be able to identify safety functions and determine the required Performance Level for these.
- Understand the structure and functions of the SISTEMA tool.
- Create evaluations of simple safety-related machine controls, in accordance to EN ISO 13849, using the SISTEMA tool.

Content:

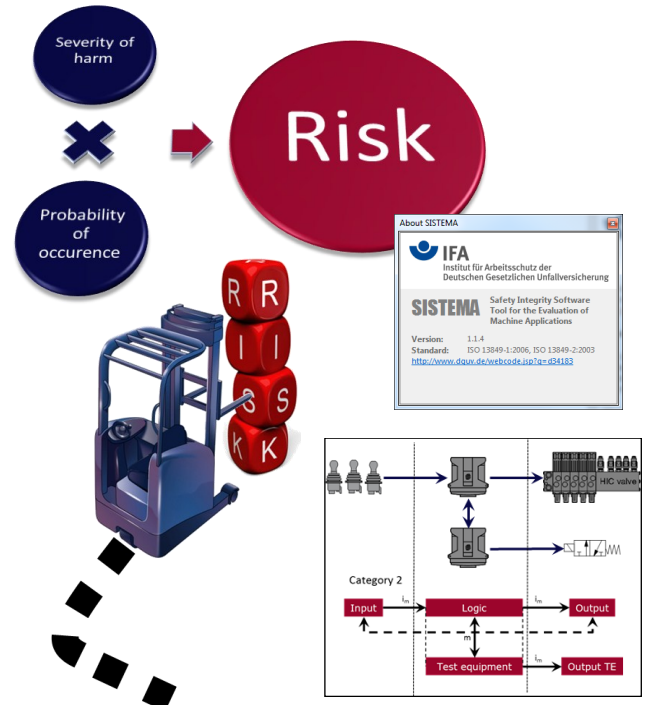
- Introduction to the theory of risk assessment and risk reduction in accordance to ISO 12100:2010 and ISO 14121-2.
- Introduction to EN ISO 13849-1 (Safety of machinery - Safety-related parts of control systems).
- Identification of safety functions in accordance with EN ISO 13849.
- Determination of required Performance Level, by means of the risk graph method.
- Introduction to the SISTEMA tool.
- Getting familiar with SISTEMA, look at a SISTEMA project example (hands-on).

Participants

Application engineers, system integrators, developers, safety specialists working with functional safety in mobile machinery.

Prerequisite

Participation in the Sauer-Danfoss Functional Safety Fundamentals training or similar. Basic knowledge about EN ISO 12100 and EN ISO 13849.



Dates Please visit our website

Duration 2-Days

1 Day: 8:30 – 17:00

2 Day: 8:30 – 17:00

Location Älmhult, Sweden

Neumünster, Germany

Nordborg, Denmark

Minneapolis, USA

Registration Please contact your sales representative & price

Product No. 11133504

Website www.sauer-danfoss.com/Applications/FunctionalSafety

Language English