HS357 - Safety Integrity Levels (SIL) Selection & Verification

17 - 21 February 2019, Oman
This course provides the delegates with a clear understanding about Functional safety life cycle concepts as per IEC 61511, why there is a need for such concept, its link to PHA/ Risk assessments and how to manage the required steps.

The main focus will be communicating the required knowledge to the delegates to achieve a thorough understanding on SIL determination, SIL verification and SIL validation and the associated requirements in view of required Safety Instrumented Functions (SIF) realized by Safety Instrumented Systems (SIS) to control risks associated with hazardous scenarios in process facilities.
Course Outline

Day 1:
A review on Process safety management systems (PSM), definition, importance, evolution, the types and the link to Functional Safety;
An introduction to Risk Assessment in process industry: definition, importance, principles and expressions; ALARP concept, ALARP demonstration using CBA;

Day 2:
A review on Likelihood analysis techniques (FTA, RBD, ETA);
Consequence analysis concepts;
Understanding the importance of SIL determination, Layer Of Protection Analysis (LOPA);

Day 3:
Management of Functional Safety, Functional safety concept based on IEC 61511;
Safety Requirements Specification;
SIL verification, concepts and understanding of different calculation methods and limitations, failure rate data and limitations, understanding of proof testing (complete and incomplete), the associated procedures and effectiveness, the impact of CCF on PFD/ PFH, systematic failure, human factors;

Day 4:
SIL verification, concepts and understanding of different calculation methods and limitations, … (cont’d);
ABL (Average Before Logic) & AAL (Average After Logic), the difference and the impact on the reliability assessments;
Spurious trips; SIL validation;

Day 5:
Worked examples and discussions;

Duration: 5 days - 08:00 - 03.30 PM daily
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Participation: Fee: US$4,249 P/P
Terms & Conditions

- TÜV Middle East Certificate will be issued to all attendees.
- Course Fee mentioned is per delegate.
- Courses will be conducted during the designated dates at a 4 star or 5 star hotel in the designated city.
- Payments to be made in advance. Exact venue of the training will be notified two weeks prior to course start date.
- This rate includes course notes, buffet lunch, coffee/ tea on arrival, morning and afternoon of each day.
- Accommodation is not included in course fees. However, any accommodation required can be arranged by TÜV Middle East at time of booking.

For further details and up to date terms and conditions, visit www.tuvakademie.net\tac1.pdf

Qualifications

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Registration
Please visit www.tuvakademie.net for details on courses we offer and more updated information.
You can also register online.

Clients

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