Italy Section

AIS e ISA Italy Section organizzano il seminario:

COURSE on Safety Instrumented System - SIS
on Tuesday 30th March 2021

By streaming

Chairman: A. Brunelli

PRESENTATION

The course explains the first the general requirements of the IEC 61508, and then outlines the requirements of the functional safety of the process industry IEC 61511, which describes the requirements necessary to ensure the functional safety of industrial plants operating in the chemical, petrochemical, energy and others.
The course then examines in completion the procedures, methodologies and examples of application necessary to ensure the functional safety in the process industry, through Electrical, Electronic and Programmable Electronic Systems (E/E/PES).

PROGRAM:

- 9:00 REGISTRATION OF PARTICIPANTS ENROLLED ON-LINE
- 9:15 INTRODUCTION: General structure of the reference standard IEC 61508 & IEC 61511
- 9:45 EXAMINATION OF IEC 61508: Notes to all the Parts from 1 to 7
- 10:15 EXAMINATION OF IEC 61511: All the points of IEC 61511-1 from 1 to 19
- 10:45 METHOD OF DETERMINATION OF THE SIL:
  - From the analysis of risks and possible consequences
  - To the determination of the Safety Integrity Level SIL (with graphs and risk matrices)
- 12:30 COURSE INTERRUPTION
- 14:00 EXAMPLE OF CALCULATION THE SIL: By varying the Diagnostic Coverage (DC)
- 14:30 EXAMPLE OF VERIFICATION THE SIL: With various architectures (1oo1, 1oo2, 2oo2, 2oo3)
- 15:00 EXAMPLE OF TEST THE SIL: Full Test at Test Interval (TI) , Partial Stroke Test (PST) e Proof Test Coverage (PTC)
- 15:30 METHOD OF RISK ANALYSIS:: Process Risk Analysis (PRA and HAZOP, LOPA, ALARP, etc.)
- 16:00 EXAMPLE OF PRESSURE TANK
- 16:30 EXAMPLE OF DOCUMENTATION OF THE SAFETY LIFE CYCLE (SLC)
- 17:00 FINAL DEBATE & CONCLUSIONS

NOTE
During the SIL determination, calculation, verification, evaluation and exemplification sessions, an application program distributed to each participant will be used!

REGISTRATION AND PARTICIPATION FEES:
The event is reserved for AIS / ISA Italy Section/ ISA members only

Membership fees:
AIS Associazione Italiana Strumentisti: Euro 55
ISA Italy Section: Euro 130 /

Training fee: Euro 100

THE EVENT WILL TAKE PLACE IF THE MINIMUM NUMBER OF PARTICIPANTS IS REACHED
In case of interest please contact our offices:
A.I.S_ISA - Viale Campania 31 - 20133, Milano | tel. +39 (0)254123816 |ais@aisisa.it
To finalize the registration you can pay:
- By credit card (Paypal), please send an email to ais@aisisa.it
- By bank transfer: Banca Intesa San Paolo Milano
  IBAN IT55 O030 6909 6061 0000 0119 766 – Swift: BCITITMMXXX; BIC: 55

Training supports:

COURSE EXPOSITION SLIDES
A program to determine the Safety Integrated Level SIL of the Safety System SIS

CHAIRMAN: ALESSANDRO BRUNELLI

AIS ISA TRAINING PROFESSOR

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Alessandro Brunelli is Graduated Technologist at the Higher Institute of Industrial Technology Mechanical of the Polytechnic of Milan in 1974, which operated in the field of training and certification of industrial instrumentation for over thirty-five years at an Experimental Laboratory and was then Professor in the Course of Mechanical and Thermal Measurement of the Polytechnic of Milan and now for ten years Consultant and Teacher in Measurement and Control Instrumentation

Participates in the activities of National, European and International standardization for mechanical and electronic equipment, and in this matter, he is Responsible of the Commission UNI (Italian National Unification) on "Metrology of Pressure and Temperature" and is Secretary of the Technical Committee CEI (Italian Electrotechnical Committee) on "Industrial-Processes Measurement, Control and Automation".

During his career he published many paper in the field of measurement and automation of industrial process, has published two monographs relating the "Humidity Measurement" and the "Flow Measurement", has also published a series of five volumes on the "Measurement and Control in Industrial Applications" and a specific volume on "Industrial Measurements: Physical & Mechanical".

Recently has published two volumes of an "Instrumentation Measurement and Control Handbook", one "Calibration Handbook of Measuring Instruments", and two volumes regarding Instrumentation Safety Aspects relating to the "Safety Instrumented Systems SIS" and to the "Fire & Gas Systems FGS".