

IEC 61511: Functional Safety Analysis, Design, and Operation *Previously titled Functional Safety Engineering I & II



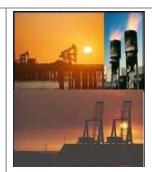
COURSE DESCRIPTION



This course is registered with the CFSE Advisory board and is included on the Course Providers Liet

This course provides an overview of process industry safety engineering from the point of view of the Risk Analyst, Process Safety Coordinator, and Control Systems Design Engineer. It delivers a complete overview of the functional safety lifecycle. The course reviews Process Hazard Analysis (PHA), Consequence Analysis, Layer of Protection Analysis (LOPA), Safety Integrity Level (SIL) Target Selection, Safety Requirements Specification (SRS) generation, failure rates, device and system reliability, SIF verification, SIF detailed design and Operations requirements.

The FSE 100 course forms a broad review in preparation for the Certified Functional Safety Expert (CFSE) and Certified Functional Safety Professional (CFSP) process industry application engineering exams.



FSE 101 FSE 102

SKILLS YOU WILL LEARN

- Develop a thorough understanding of the IEC61511 Safety Life Cycle requirements,
- Establishing tolerable risk and the ALARP concept,
- Hazard and risk analysis techniques,
- Layer Of Protection Analysis (LOPA) techniques,
- SIL determination techniques.

- Review the fundamental concepts of reliability engineering.
- Safety Instrumented System failure modes.
- Develop a thorough understanding of the IEC61511 Safety Life Cycle requirements.
- SIS design from requirements analysis and documentation.
- Safety Instrumented System analysis techniques

COURSE TOPICS

- Introduction to Safety Instrumented Systems
- Principles of Risk Management
- The Safety Lifecycle
- Process Hazard Analysis
- Consequence Analysis
- Likelihood Analysis
- Layer of Protection Analysis
- Tolerable Risk
- SIL Target Selection
- Safety Requirements Specification

- Safety Instrumented Systems Failure
- From Failure Rate to SIL
- Single Devices to System
- Redundant Architectures
- Requirements to SIF
- SIF Design and Verification in the Safety Lifecycle
- SIF Detail Design
- Operations

TRAINING MATERIALS PROVIDED

Handout (bound manual)

- FSE 101 Slides
- Exercises
- Exercise Answers
- Terms and Abbreviations

Handout (bound manual)

- FSE 102 Slides
- Exercises
- Exercise Answers
- Terms and Abbreviations

WHO SHOULD ATTEND

- Potential CFSE application exam candidates.
- Control Engineers and their Management
- HSE engineering and managementLoss Prevention Professionals
- ☐ Plant Risk Analysts

COURSE CERTIFICATE

All attendees will receive a Course Completion certificate at the conclusion of the course. On completion of the course, the delegates will write a short exam. If successful, the delegates will receive an exida Academy Functional Safety Practitioner certificate.



COURSE INSTRUCTOR



Mr.Greg Chantler, CFSE has over 25 years of professional experience. For the past 18 years he has been involved in consulting and engineering design of safety related systems within the process industry. This consulting work has led to him being an expert in all aspects of the functional safety standards, including HAZOP and SIL Selection facilitation, SRS development, SIL Verification calculations and development of operations and maintenance procedures. He is a current CFSE and TUV Rheinland FS Expert.



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REGISTRATION FORM								
Course Dates:			Venue:					
Training Course:	Sunday 18 th Augu Wednesday 21 st A (4 full days)	ust to August 2019	Triumph Hotel Heliopolis Cairo Egypt					
CFSP Exam Review:	Thursday 22 nd Au	Thursday 22 nd August 2019 am		https://triumphotels.com/plaza/contact/				
OFSP Exam:	SP Exam: Thursday 22 nd August 2019 pm							
I will be attending:								
IEC 61511: Function Analysis, Design, Training Course		CFSP Exam and including fees to CFSE.org	<mark>o be </mark> paid to	2500) 🗆	CFSP Example attendance Assumes separately	e only. ees paid		
I am interested in purchasing the Safety Book Package. Please send me information.								
Because of the high level of difficulty of the CFSE/P exam, delegates are strongly encouraged to pursue additional studies on their own in preparation for the exam. (refer to the CFSE website www.exidacfse.org for exam application requirements)								
DELEGATE INFORMATION								
Name								
Organization								
Postal Address		1 6	7			1		
Telephone					- 2	2		
Cell Phone						1		
Fax								
Email address)]					
Accounts Contact								
PAYMENT DETAILS								
Electronic Fund Transfer								
TERMS AND CONDITIONS								
 Receipt of payment will secure the booking, (bank details will be provide email). Purchase orders to be made out to Roqqy Training and Development Course cancellations notified in writing not less than 21 days prior to coucommencement will receive a refund less a 10% cancellation fee. Refund be made within any lesser period unless the course is cancelled. A subsidelegate prior to course commencement is allowed. Acceptance of book 			nt (LLC) course unds will not bstitute ookings	PLEASE COMPLETE THIS FORM AND SEND TO: Address:				
cancellation and refund policies are conditions of registration.					11762 Cairo, Email: info@roqqy.com Egypt www.roqqy.com			
I (name & surname) hereby confirm that I accept and agree with all information as well as terms and conditions stated on the Booking form (and will participate at the IEC 61511: Functional Safety Analysis, Design, and Operation Training Course to be held in July 2019, Cairo, Egypt) Signed Date								
Signed		Date						