Formation SF7

Duration:

2 days
+ 1 day
option

Sustainability: control long-term reliability

Accuracy and validation

Objectives

- Learning the statistical models used for sustainability process
- Learning the different phases of the sustainability process
- Understanding how to establish and use a sustainability validation plan (Experimental Reliability)
- Using customer's failure data (Operational Reliability)

Program

Introduction

- Importance of the reliability in RAMS activities

Statistical reminders related to the Reliability

- Acronyms and main formulations used in Reliability
- Tools used in Reliability (normal, log-normal, Weibull, exponential)
- Study of Weibull's model
  - Meaning of the parameters β, η, γ
  - Link between β and the failure mode

Demonstration of Reliability

- Method « stress/resistance »
- The reliability phases
- Data analysis for predictive assessment

Operational Reliability

- Taking into consideration customer's feedback to determine the reliability of the systems
  - Estimate the parameters of the lifetime law (instantaneous)
  - Estimate the parameters of the lifetime law (confidence interval)
  - Industrial examples and application exercises

Experimental Reliability

- Choosing the type of test to estimate the reliability of a system
- Definition of the tests: number, duration and acceptance criteria
- Definition of the test profile adapted to the mission profile
- Using accelerated life testing (define and use accelerated life laws)
- Learning the basic vocabulary related to the material fatigue phenomenon
- Industrial examples and application exercises

Teaching methods

Presentations with illustrated practical cases
Lunch meeting with the speaker

Prerequisites

Equivalent profile as engineer, in technical or in scientific education

For whom

Project Managers, Design Offices, Methods, R & D, Quality

Lecturer/Trainer

Expert and / or specialist

Assessment methods

Assessment sheet and self-assessment given at the end of training

Sites

PARIS / LYON / MONTREAL

Intra-company sessions on request

Contact us

For more information
Phone : 438-558-1395
formation@sector-group.net

Risk management and dependability: methods and implementation