

## Formation SF4



Duration:

1 day

# Tree Fault Analysis

*Concepts and method*

### 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](mailto:formation@sector-group.net)

### Objectives

The objectives of this training are to provide to the participants :

- General knowledges of the RAMST parameters RAMST (Reliability, Maintainability, Availability, Safety et Testability)
- The principles of Tree Fault Analysis and its limits
- The ability to carry out this method in a study or to be able to criticize it

### Program

#### **Introduction**

- Why do we need RAMS activities ?
- Why do we need a PHA analysis ?
- Concepts et definitions

#### **Tree Fault Analysis**

- Origin of the method - Application domains
- Objectives of this method
- Definitions and Acronyms
- Preliminary steps

#### **Construction method of the Tree Fault analysis**

- Boolean reduction and probability processing
- Failure rates, MTBF and MTTF
- Probabilities of failure on demand
- Tools to obtain data: databases, validity control
- Comments on current difficulties and limitations (considering the application of RAMS in software and the human factors)

#### **Synthesis of the Tree Fault analysis**

- Advantages and disadvantages
- Conclusions about the methodology
- Bibliographic references

#### **Case study**

- Choice of the subject
- Preparation of working group
- Construction of the tree by participatory approach
- Presentation of the results
- Case study synthesis

The case study will be used for:

- Understanding the problems to be solved
- Understanding how the concept and method of the Tree Fault analysis can provide solution
- Overviewing concrete examples

Concepts and methods will be presented by the trainer, who will complete the presentation with examples.