

# Laser Fault Injection

2 DAYS (14H)

Ref. AOL-017

## OBJECTIVES

- Understand laser and optics physical phenomenons on integrated circuits leading to a logical fault
- Understand a typical laser setup for fault injection in line with the current state-of-the-art
- Manage in the lab a successful fault injection on a real device
- Learn how to analyze and interpret laser fault injection results
- Understand and tackle the challenges of a laser fault injection test campaign

## PUBLIC

- Users or future users of laser fault injection benches
- Technicians, engineers, researchers
- Undergraduates and Ph.D. students

## EVALUATION

- Assessment
- Certificate of completion

## INSTRUCTORS

- Experts in laser and optics (ALPhANOV engineers)
- Experts in IC security analysis (eShard engineers)

## PROGRAMME

- Basics concepts in optics and laser
- Laser fault injection principles
- Presentation of a typical laser fault injection setup
- In our dedicated lab for training, you will be able to set yourself the whole laser fault injection setup:
  - Understand what makes an attack successful
  - Drive any single equipment
  - Design a test campaign for a specific attack scenario
- Laser safety instructions
- In our dedicated lab for training, during this hands-on session, you will:
  - Work on the DUT
  - Set up the laser bench
  - Prepare a campaign
  - Launch laser fault injection tests
- Analyse and interpret the results of the campaign using software tools
- Understanding and methodology to overcome issues and challenges during real conditions laser fault injection test campaign
- Maintaining a laser fault injection bench in good operating conditions
- Actual states-of-the art of laser fault injection techniques

## METHODS & EDUCATION TOOLS

- Lectures: 50%
- Hands-on training: 50%

## + D'INFOS

- Location: ALPhANOV – Bordeaux – France
- Dates: on-request
- Prerequisite: degree in microelectronics
- Registration fees: contact us – [contact@pyla-formation.com](mailto:contact@pyla-formation.com)

## IN PARTNERSHIP WITH

