EF4 | Thermal infrared: principles



LEVEL: BASIC

Audience: Engineers or technicians wishing to master the principles of thermal infrared

Prerequisites:

Pedagogical manager(s): Isabelle Ribet - Experte Onera, enseignante à l'Institut d'Optique

Language of the training: French

Maximum capacity: 12

Price: 1820€ HT - **Duration:** 4 days - 28 h

Objectives

- Discover and understand the specificities of the infrared domain
- Know how to choose and use infrared equipments
- Understand the design and the characterisation of thermal infrared equipments

Next sessions

- 21 may 2019 au 24 may 2019 - Palaiseau

Addressed topics

Infrared radiometry
Detectors
Mechanical design
Design and characterisation of infrared equipments

EF4 | Thermal infrared: principles

The program

Infrared radiometry
- Radiometry basics, infrared applications
- Infrared properties of atmosphere and media
- Exercices

Detectors
- Main technologies and associated figure of merits

System-oriented mechanical conception

Design and characterisation of infrared equipments
- Design
- Scene characterisation
- Signal to noise ratio and optimisation
- Infrared sensors characterisation : NEI, NETD, MRTD

Labworks
- Infrared camera
- MTF measurements

Methodology and assessment

Talks and exercices
Interactive demonstrations
Labworks

Formation Continue de l'Institut d'Optique - 2 av. Augustin Fresnel, 91127 Palaiseau. Tél . : +33 1 6453 3236 - fc.institutoptique.fr
PARIS-SACLAY - SAINT-ETIENNE - BORDEAUX