

## EF4 | Thermal infrared: principles



NIVEAU : BASIC

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

**Prérequis :**

**Responsable(s) pédagogique(s) :** Isabelle Ribet - Experte Onera, enseignante à l'Institut d'Optique

**Langue de la formation :** French

**Capacité maximum :** 12

**Prix :** 1820€ HT - **Durée :** 4 days - 28 h

### Objectifs

- ▶ 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

### Dates et lieu des prochaines sessions

- ▶ 21 may 2019 au 24 may 2019 - Palaiseau

### Thèmes abordés

Infrared radiometry

Detectors

Mechanical design

Design and characterisation of infrared equipments



---

## EF4 | Thermal infrared: principles

---

### Le programme

#### 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

### Méthodologie et évaluation

#### Talks and exercices

#### Interactive demonstrations

#### Labworks