FLIR Certified System Engineer (FCSE)

AUTOMATIC INCIDENT DETECTION & TRAFFIC DATA COLLECTION WITH VIP-, TRAFIBOT- OR ITS SERIES AID

ITS TRAINING
1 GOALS

1.1 TOPIC
This training is about the FLIR ITS solutions for Automatic Incident Detection and Traffic Data Collection with FLIR ITS VIP-series, TrafiBot-series and ITS series AID, here after named as "-series.

1.2 GOAL
When you have completed this training you’ll:

- Be able to explain, install, configure and maintain "-series on a fundamental level".
- Have the knowledge and skills to successfully complete your AID and/ or Traffic Data project.

A fundamental level:

- At this level, you’ll be able install and configure 70% of all your installations successfully.

1.3 OBJECTIVES
When you have completed this training, you’ll be able to:

1.3.1 General
- Explain the architecture and principles of video detection with visual and thermal sensors
- Describe benefits of visual and thermal imaging
- Explain the minimum requirements for a Visual and/ or Thermal Camera
- List the different applications FLIR ITS has to offer for

1.3.2 VIP-Series
- Describe the hardware features of the different VIP-series models
- Explain the differences between the different VIP-Series models
- Install and connect the VIP-series models

1.3.3 TrafiBot Series
- Describe the hardware features of the different VIP-series models
- Explain the differences between the different TrafiBot-Series models
- Install and connect the TrafiBot-series models
1.3.4 **ITS Series AID**
- Describe the hardware features of the different VIP-series models
- Install and connect the VIP-series models

1.3.5 **Automatic Incident detection**
- Describe ideal installation height and angle for AID
- Set-up the calibration for AID
- Configure on a basic level the *-series for Stopped Vehicle, Fallen Object, Pedestrian, LOS, Under speed, Over speed, Inverse direction, Camera Movement, Image Quality, Smoke, Fire
- Create back up and rich network that can be used by FLUX Traffic Management System.

1.3.6 **Traffic Data Collection**
- Describe the ideal installation height and angle for traffic data collection
- Calibrate the *-series
- Configure on a basic level the *-series for Flow data and integrated data collection
- Create back up and rich network that can be used by FLUX Traffic Management System.

1.4 **AUDIENCE**
This training is intended for Traffic Engineers, consultants, technical sales involved ITS projects requiring Automatic Incident Detection (AID) and Traffic Data Collection (TDC) on highways, bridges and in tunnels.
2 \textbf{DAY 1}

08:30 Welcome
   - Coffee & Registration

09:00 Introduction
   - FLIR ITS, the company
   - The Solutions
   - How does it work?

09:50 Break

10:00 Camera, the eye of the system – The perfect Camera
   - Visible Camera
     - Lens
     - Camera housing
     - Video Transmission

10:30 Camera, the eye of the system – the perfect position
   - For automatic incident detection
   - For data collection
   - For presence detection
   - For monitoring

10:50 Break

11:00 Hardware *-series
   - Board
   - Rack
   - Box
   - Camera

12:00 Functionalities *-series
   - AID
   - Traffic Data

12:30 Lunch Break
13:30  TCT, Traficon Configuration Tool
  • Install TCT
  • Configure Network
  • Calibration of *-series Board

14:15  Break

14:30  Basic configuration of *-series for Traffic Data functionality
  • How to draw a Traffic data zone
    o Hands-on
  • Tips & Tricks on a good working zone

15:30  Break

15:45  Basic configuration of *-series for Inverse Direction functionality
  • How to draw a Data zone
    o Hands-on
  • Tips & Tricks on a good working zone

16:15  Basic configuration of *-series for Under speed functionality
  • How to draw a Data zone
    o Hands-on
  • Tips & Tricks on a good working zone

17:00  End
3 DAY 2:

09:00 Recap yesterday
  • Calibration
  • Detection zones

09:30 Basic configuration of *-series for Stopped Vehicle functionality
  • How to draw a Stopped vehicle zone
    o Hands-on
  • Tips & Tricks for a good working zone

10:15 Break

10:30 Basic configuration of *-series for Smoke, Image Quality, Camera movement
  • How to draw a zone
  • Tips & Tricks for a good working zone

11:00 Break

11:15 Recap Exercise: Configure *-series board:
  • Calibration
  • Pedestrian and Fallen Object
  • Smoke and image quality detection

12:30 Lunch

13:30 Maintenance:
  • Back up
  • Work offline
  • Replace hardware

14:30 Break

14:45 Work with multiple configurations

15:45 Break

16:00 Introduction into FLUX
  • Architecture
  • Features

17:00 End
4 REQUIREMENTS

4.1 CLASSROOM:
The classroom should have the following:

- Whiteboard and/or Flipchart
- Projector or big screen
  - To connect trainer’s laptop on
  - VGA connection (if HDMI adaptor to VGA)
- Table and chair for every participant
- Enough power outlets for laptops & equipment

4.2 STUDENTS:
The students should:

Have:

- a laptop
  - on which they can install software
  - if they cannot install software we can send it before so admin can install it for them.

Know:

- basic pc skills

4.3 *-SERIES
Ideal is to have for every student a *-series board/ camera. If that is not possible ITS Training can always ship.

! Be aware of shipping times, customs, …
5 CONTACT DETAILS:

5.1 TRAINER

Joris Blaton

5.2 CONTACT

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