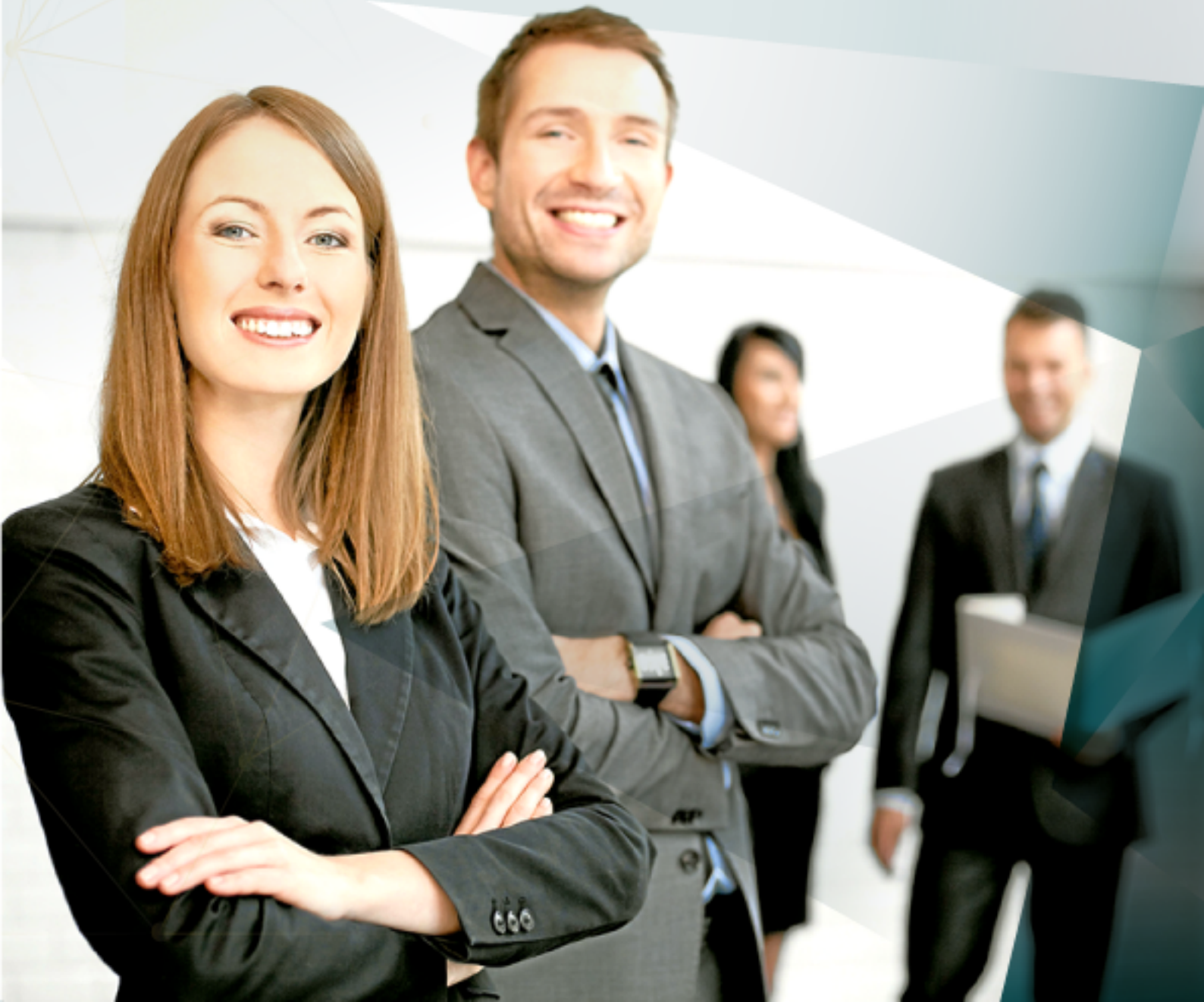
MERCURY

Introduction to UAV

16 - 20 Sep 2024
Rome (Italy)



Istanbul - Turkey: +90 539 599 12 06
Amman - Jordan: +962 785 666 966
London - UK: +44 748 136 28 02

MERCURY

Introduction to UAV

Ref.: 15293_303732 **Date:** 16 - 20 Sep 2024 **Location:** Rome (Italy) **Fees:** 5500 **Euro**

Introduction:

This program provides general and in depth knowledge about the world of unmanned aircraft and drones by presenting a historical introduction to drones and a simplified entry into the world of manned and unmanned aircrafts, helicopters, and drones. The course will cover the engines aspects to understand the reality of unmanned aircraft and then proceeding to how the types of engines that work on drones perform and presenting an explanation of the applications of unmanned aircraft, for civil and scientific uses. Moreover, an explanation of the process of taking off, and landing of all types of unmanned aircrafts. In addition, how to confront drones according to the size and danger they pose, how to avoid their danger safely, and clarify the ways to use drones in a safe and sound manner, through regulations, laws and the behavior of individuals. This course also will show the mechanisms of drones designs, their manufacturing aspects, and different types of materials used in drones manufacturing.

Targeted Groups:

- Safety and operations managers from Airlines, Airports, Air Navigation Services Providers ANSPs, Civil Aviation Authorities CAAs and aviation-related organizations
- Air Traffic Control Officers ATCO
- Operators of unmanned systems
- Public Service departments Police/Fire
- Small UAS for profit operators

Course Objectives:

- To learn about the components and subsystems of different types of UAVs and their systems
- Examine the advantages, applications, and performance of drones of all kinds
- To learn about the different equipment used in UAV launch and control systems
- To Learn about monitoring the danger of drones and ways to address them
- Discover and identify UAV interceptors and jammers
- Gain a comprehensive understanding of the concept of drones and their applications

Course Outline

This program provides an in-depth understanding of all equipment and systems used in drones, their types, systems, applications, sizes, designs, materials used in manufacturing and manufacturing of drones, their benefits and harms, and the civilian and scientific uses of drones.

Unit 1: General and Historical introduction to drones

- The history of military drones
- The 70s, 80s, & 90s
- Commercial drones take flight
- Hobby drones become mainstream
- The success of commercial drones

Istanbul - Turkey: +90 539 599 12 06
Amman - Jordan: +962 785 666 966
London - UK: +44 748 136 28 02

- Percepto and the future of autonomous drones

Unit 2: A simplified explanation of the aerodynamics of drones

- Vertical Motion
- Turning Rotating
- Forwards and Sideways
- Using a Computer

Unit 3: Explanation of the engines for unmanned aircraft

- Propulsion System Configuration of UAVs
- Fuel Propulsion System for UAV
- Piston Engine Reciprocating Piston Engine, Rotary Engine, Key Technologies of Piston Engine
- Turbo Engine Turbojet Engine, Turbofan Engine, Turboprop Engine, Turboshaft Engine
- Ramjet Engine

Unit 4: Explain civil and scientific uses of unmanned aircrafts and drones

- UAV payload sensors
- Thermal detectors
- Multispectral cameras
- Light detection and ranging
- UAV for 3D model generation: operative rules, regulation, data collection, and processing

Unit 5: Explain the security applications of drones.

- Carrying out remote patrols
- Actionable insights
- Environment hazard detection
- Search and rescue
- Surveillance
- Traffic monitoring.
- Firefighting.

Unit 6: Explain the anti-drone systems, and how to avoid their attacks.

- Infrastructures - Infrastructures and Utilities Protection
- Correctional Facilities - Contraband Smuggling
- Security Operations - Special Tactical Units and Counter-Terror Operations
- Border Security - National Sovereignty
- Intelligence - Intelligence Gathering

Unit 7: Explanation of ways to deal with drones’ challenges

- Hydrogen fuel cells
- IntuVue RDR-84K Radar
- Inertial Measurement Unit

Istanbul - Turkey: +90 539 599 12 06
Amman - Jordan: +962 785 666 966
London - UK: +44 748 136 28 02

- Small UAV SATCOM

Istanbul - Turkey: +90 539 599 12 06
Amman - Jordan: +962 785 666 966
London - UK: +44 748 136 28 02

MERCURY

Registration form on the : Introduction to UAV

code: 15293 **From:** 16 - 20 Sep 2024 **Venue:** Rome (Italy) **Fees:** 5500 **Euro**

Complete & Mail or fax to Mercury Training Center at the address given below

Delegate Information

Full Name (Mr / Ms / Dr / Eng):
.....
Position:
.....
Telephone / Mobile:
.....
Personal E-Mail:
.....
Official E-Mail:
.....

Company Information

Company Name:
.....
Address:
.....
City / Country:
.....

Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng):
.....
Position:
.....
Telephone / Mobile:
.....
Personal E-Mail:
.....
Official E-Mail:
.....

Payment Method

☐ Please invoice me

☐ Please invoice my company