This advanced Unmanned Aerial Vehicle (UAV) simulator is designed to provide cost-effective familiarisation and procedural training for ground handling crew in flight handling, operations and emergency procedures related to the UAV. It enables trainees to become proficient in operating the air vehicle in a simulated environment before carrying out full mission training and rehearsal using the real air vehicle.
KEY FEATURES

High Resolution and Realistic Visual Display
The realistic geo-specific 3D textured terrain databases are created using the most advanced database creation tools. Objects such as transport vehicles and Surface-to-Air Missile (SAM) sites, with and without camouflage, can be added into the terrain database. The ground terrain display is shown on a monitor in the Ground Control Station (GCS) as it is recorded via the camera on the UAV.

Crew Stations
The Internal Control Station comprises the actual GCS housing control, communications and monitoring equipment for the UAV. Realistic 3D Computer Generated Imagery (CGI), through the use of powerful high-resolution graphics computers, affects the UAV’s camera view. The CGI graphics are displayed on the monitor in the ground station.

The External Control Station comprises of an immersive visual display station, which provides a half or full dome-sized configuration for crew trainees to practice external control of the UAV via the flight control box. The External Control Station develops crew trainees’ skills on takeoffs and landings of UAVs on the runways during different time of the day and under different weather conditions.

Instructor Operating Stations (IOS)
The IOS allows the instructor to monitor and assess the crew trainees’ performance with ease and provides the environment to reconfigure the exercise scenario to simulate various terrain, scenery, weather conditions and emergency situations during the training sessions. The emergency situations include interference in the video recording of the camera on the UAV, stoppage of video recording due to camera malfunction and others.

CAPABILITIES

- Simulates and injects emergency situation scenarios.
- Displays different views as seen by the camera mounted on the UAV.
- Allows manoeuvring and navigation of the UAV using only the ground-based communications, monitoring and control equipment.
- Enables familiarisation of ground-based targets, such as SAM sites, ground vehicles and bunkers.
- Improves proficiency in basic flight-handling skills.
- Enhances ability to handle emergency procedures.