

Elettronica Group is proud sponsor of Electronic Warfare GCC Stand 14

Electronic Warfare GCC 2018
Abu Dhabi, UAE
8-10 October 2018

Elettronica Group is attending the Electronic Warfare GCC conference in the Emirates. We are proud sponsor of this conference where the very best international EW technology suppliers are able to build strong connections with leading local defence companies, tasked with meeting regional military and security objectives.

Graziano Lubello (PL Lawful Interception Manager at CY4GATE) and Claudio Dainelli (Training Support System Manager) will be holding a workshop aimed of exploring the threat posed by drones, analyzing the full operational cycle of the Innovative Counter Drone Systems, to be effective in future scenarios. The following day, Timothy Battisti, (System Analyst, R&I Department) will cover the boost of Artificial Intelligence in Homeland Security.

09-Oct-2018 - 10:30/12:00 Workshop Room 4: Innovative Counter Drone Systems

The threat posed by drones (or small Unmanned Aerial Vehicles) must now be regarded as a resilient threat. Organizations of irregular fighters and terrorists have already started to use drones in an organized and structured way to acquire intelligence and perform hard-kill attacks. No more sporadic and isolated actions but organized in accordance to precise plans often orchestrated across different operational scenarios from Syria to Iraq.

Innovative Counter Drone Systems, are usually composed of different sensors and actuators, but nowadays there is the need to overcome the concept of the “single-and-simple” system to provide the End User with a real operational capability to fully and effectively combat the threat of drones.

Innovative Counter Drone Systems need to implement a full operational cycle composed of Planning, Detection, Identification, Tracking and Neutralization, Intelligence, and finally Briefing and Libraries Update phases.

10-Oct-2018 - 08:30/10:00 Workshop Room 1: Border Surveillance & Traffic Analysis: the Boost of Artificial Intelligence in Homeland Security

The modern border surveillance networks collect an enormous quantity of data, processed by one or more Command and Control (C2) Centers, in order to generate a complete and exhaustive operative picture. This requires:

- “Persistent” (always available) capability of an immediate optical feedback whenever the border surveillance network detects anomalous activities and behaviors of the monitored platforms;

- “Persistent” capability of extending patrolling and surveillance beyond the electromagnetic horizon;
- Protection of all border surveillance network nodes from “cyber-attacks” in order to guarantee integrity/confidentiality of the collected data

Two innovative functions are enabled by the use of Artificial Intelligence techniques:

- The Specific Emitter Identification (on both Radar and COMM signals) that provides a method to associate in a unique way the received waveform with the corresponding radio transmitter;
- The Anomalous Behavior Detection that provides a method based on analysis trajectory/kinematic and waveform behavior to detect anomalous activities of the platforms under monitoring.

Given the huge amount of data, it is necessary to introduce, in each node to be protected, the functionality of Advanced Cyber Defense. This functionality is also based on “Artificial Intelligence” techniques and it is able to detect, identify and classify harmful and malicious network traffic flows (e.g., intrusions/infections).

About Elettronica

Elettronica Group, as a European leader in Defence & Security, has been on the cutting edge of Electronic Warfare for more than 60 years, supplying Armed Forces and Governments of 30 Countries with more than 3000 high technology systems.

Privately controlled by Benigni’s family, with Leonardo and Thales in the shareholders structure, the Group is composed by three industrial assets, Elettronica S.p.A, headquarter, based in Rome, leader in full EW capabilities, CY4GATE, a joint venture with Expert System, born to address today’s emerging and evolving needs in cyber domain, specialized in Cyber EW, Cyber Security and Intelligence, and Elettronica GmbH, the German subsidiary specialized in EW signal processing design and production and Homeland Security solutions. Elettronica’s systems are deployed for a variety of key operational missions, from Strategic Surveillance, to Self Protection, Sigint, Electronic Attack and Operational Support for airborne, naval and ground applications. Elettronica Group boasts a strong record of successful domestic and international collaborations on all the key modern military platforms such as the Italian PPA, the fighter Eurofighter Typhoon, the NFH-90 helicopter, the Italian and French ship class Horizon and FREMM, and a wide range of projects in the Gulf, Middle East and Asia.