



# The Institute of Electrical and Electronics Engineers (IEEE)



Galveston Bay Section Joint Societies Chapters,  
International Measurement Confederation TC17,  
and AIAA Houston Section

Friday, March 22nd, 2024, 10:00 AM- 11:00 AM US-Central Daylight Savings  
1600-1700 Central Europe Time (Belgium)

## TOPIC: “Drone detection, Tracking and Identification methods”

**SPEAKER:** Dr Geert De Cubber, Royal Military Academy of Belgium and Member IMEKO TC17

### PRESENTATION:

Unmanned Aerial Systems (UAS) or drones cannot be ignored in our society. They are easily available and relatively cheap. Their applications vary from “toy” to inspection, from observation to delivery. However, UAS also have a high potential for criminals and terrorists. For criminals, they are well suited for observation or smuggling of goods like drugs & weapons. For terrorists, UAS is also well suited. A single drone can disrupt airport operations. Little imagination is needed to see the potential for attacks on high-value targets and critical infrastructure. Within the realm of UAS detection, tracking, and identification (DTI), seven types of technologies are typically employed: radars, visible light cameras, thermal imaging cameras, infrared sensors, laser distance finders (lidars), frequency monitoring devices, and acoustic sensors. Yet, individual systems often falter in delivering adequate protection under realistic conditions, prompting the common practice of employing a combination of sensor technologies. This webinar will give an overview and discuss each of these detection methodologies, informing the audience about the advantages and disadvantages of these systems and showing how their performance can be assessed.

### PRESENTER:

Geert De Cubber is the team leader of the Robotics & Autonomous Systems unit of the Department of Mechanics of the Belgian Royal Military Academy. He is also a senior researcher at this institute with a research focus on developing robotic solutions for solving security challenges like crisis management, the fight against crime and terrorism, and border security. He received his Diploma in Mechanical Engineering in 2001 from the Vrije Universiteit Brussel (VUB) and his Doctoral Degree in Engineering in 2010 from the Vrije Universiteit Brussel and the Belgian Royal Military Academy (RMA). He is and was the coordinator of multiple European and national research projects, like FP7- ICARUS (on the development of search and rescue robots), H2020-SafeShore (on the development of a threat detection system), and COURAGEOUS (on the development of a standard test methodology or counter-UAS tools). Next to this, he is the principal investigator for RMA for multiple international research projects like STARS\*EU and ASSETS+. Dr De Cubber is a member of the International Measurement Confederation (IMEKO) Technical Committee on Robotic Measurement, TC17.

This event is organized by Galveston Bay Section Joint Societies chapters in collaboration with IMEKO TC17

The presentation is FREE and open to all Interested members.

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**Registration is required by Wednesday, March 20th, 2024 (Close of Business) 5:00 PM (CDT) to attend.**

**FOR REGISTRATION GO TO <https://events.vtools.ieee.org/event/register/409965>**