66th IG MEETING

European Security and Defence College

LoD 13 Session
SCIENCE & TECHNOLOGY EDUCATION

Constanta
4th of June, 2025

1. About participants

2. Common Module IMINT/GEOINT ANALYSIS

3. KA2 project DIGITAL MATHEMATICS APPLIED IN DEFENCE AND SECURITY EDUCATION

4. Ballistics CM (internal, external, terminal)

5. Integrated Avionics and Weapon Systems: Simulation, Testing and Field Deployment for UAV Platforms – CM draft

6. Innovation network

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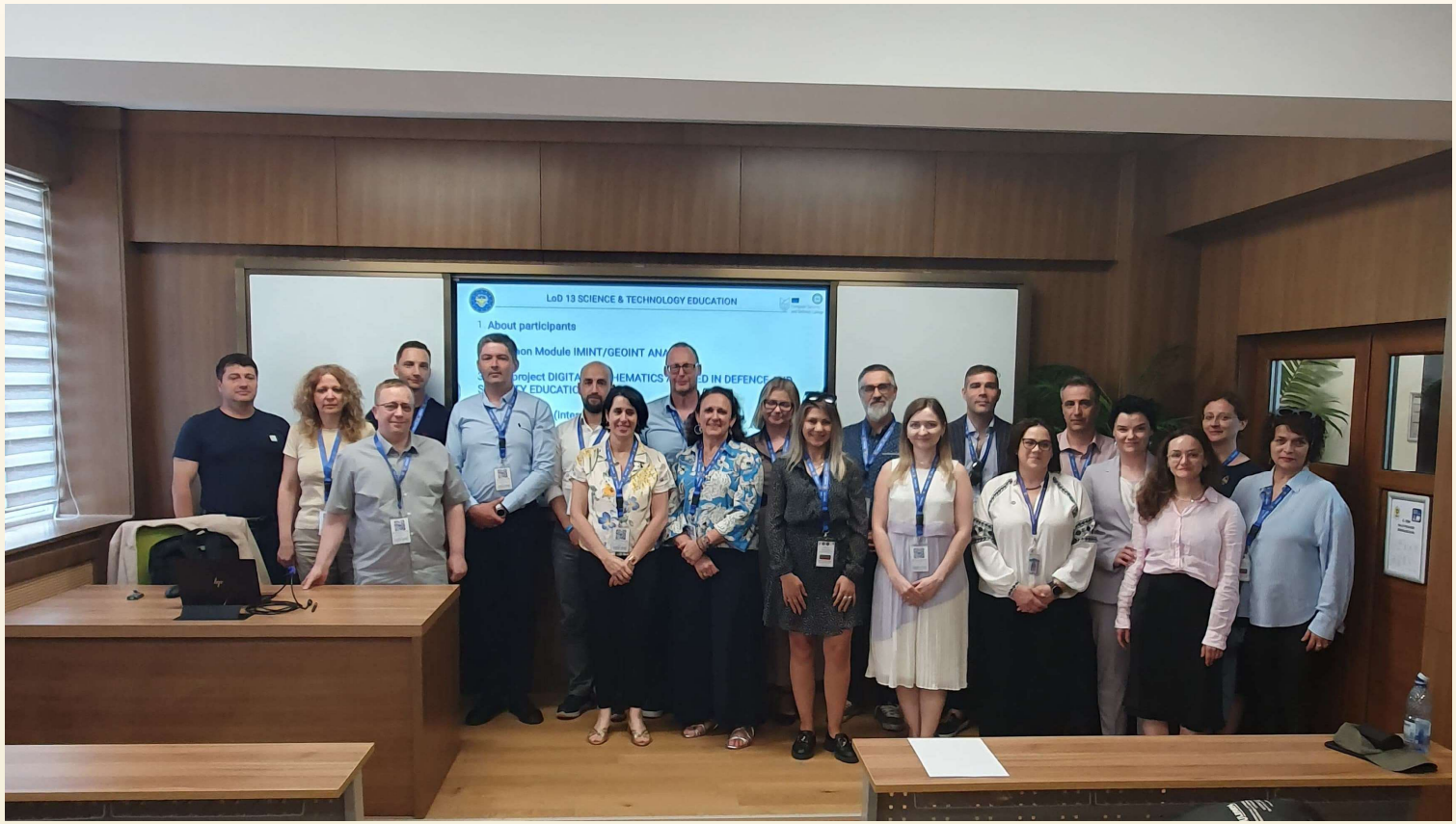
PARTICIPANTS



AT TMA, BG NMU – Shumen, BG NMU – Veliko Tarnovo, CA MoD, ES SAFSA, GR HAFA, HR DSU, HU UoPS, IT MoD, PL AWL, PL WAT, PT PMA, PT PAA, RO ANMB, RO MTA

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Common Module IMINT/GEOINT ANALYSIS

– Blended Intensive Programme – 23rd of June – 4th of July, 2025

Learning outcomes	
Knowledge	• Describe the basic concepts of GEOINT related to military training in security and defence. • Identify the methods based on the fusion or integration of multiple forms of data collected from satellite and airborne sensors, along with a wide variety of other digital geographic information.
Skills	• Apply GEOINT/IMINT analyses to provide critical spatial information to a decision-making process that is necessary for meaningful actions and decisions. • Design and implement scenarios based on Geospatial Intelligence (GEOINT) analysis and exploitation of EO and SAR HR Imagery.
Responsibility and autonomy	• Analyse the quality of scenarios based on IMINT/GEOINT concepts. • Examine the correctness of the use of IMINT/GEOINT concepts in the decision-making process of the military actions or peacekeeping missions.

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KA2 project DIGITAL MATHEMATICS APPLIED IN DEFENCE AND SECURITY EDUCATION

- **Conclusions about the previous working packages of the project**
- **Dissemination of the DIMAS Survey**

SURVEY FOR TEACHERS

Survey of Available Digital Mathematics Tools

We will be very grateful if you share the link with teachers who teach Mathematics and related applications.
Access to a Google profile is required.

https://forms.gle/2YiiiqpZtuUjSRPY6

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Ballistics CM (internal, external, terminal)

Learning outcomes	
Knowledge	• Demonstrate understanding of the principles and phenomena governing interior, exterior, and terminal ballistics, with a focus on the operational characteristics of ballistic systems used in army, air, and naval forces. • Explain the physical and mathematical models underlying the trajectory, stability, and impact behaviour of projectiles in various ballistic phases, adapted to both small- and large-calibre weapon systems.
Skills	• Analyse the ballistic performance of different weapon systems using appropriate theoretical and computational tools, including trajectory simulation and impact analysis for defence and security applications. • Evaluate the performance of army, air, and naval armament systems, integrating considerations specific to interior, exterior, and terminal ballistics.
Responsibility and autonomy	• Demonstrate autonomy in conducting ballistic assessments and simulations to support informed decisions regarding the use, adaptation, or development of weapon systems in various operational contexts. • Assume responsibility for the accuracy, safety, and ethical implications of applying ballistic knowledge in the design and evaluation of defence and security technologies.

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Integrated Avionics and Weapon Systems:
Simulation, Testing and Field Deployment for UAV Platforms – CM draft

Learning outcomes

- Understand integrated avionics architectures in UAV platforms
- Operate and evaluate SITL/HITL simulations
- Apply practical skills in real UAV deployments and data interpretation
- Draw functional links between avionics and weapons system interfaces

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- **Innovation Network - Ideas in close cooperation with LoD-14 & LoD-09**
- **Optoelectronics for defence and security – CM – 1st round of debates**

QUESTIONS?

SUGGESTIONS?

RECOMMENDATIONS?