70th IG MEETING

European Security and Defence College

LoD 13 Session
SCIENCE & TECHNOLOGY EDUCATION

Riga
27th of May, 2026

1. About participants
2. The European Erasmus+ project NATURE FUTURES
3. Common Module IMINT/GEOINT ANALYSIS
4. Development of new CMs: Optoelectronic Systems
5. KA2 project DIGITAL MATHEMATICS APPLIED IN DEFENCE AND SECURITY EDUCATION

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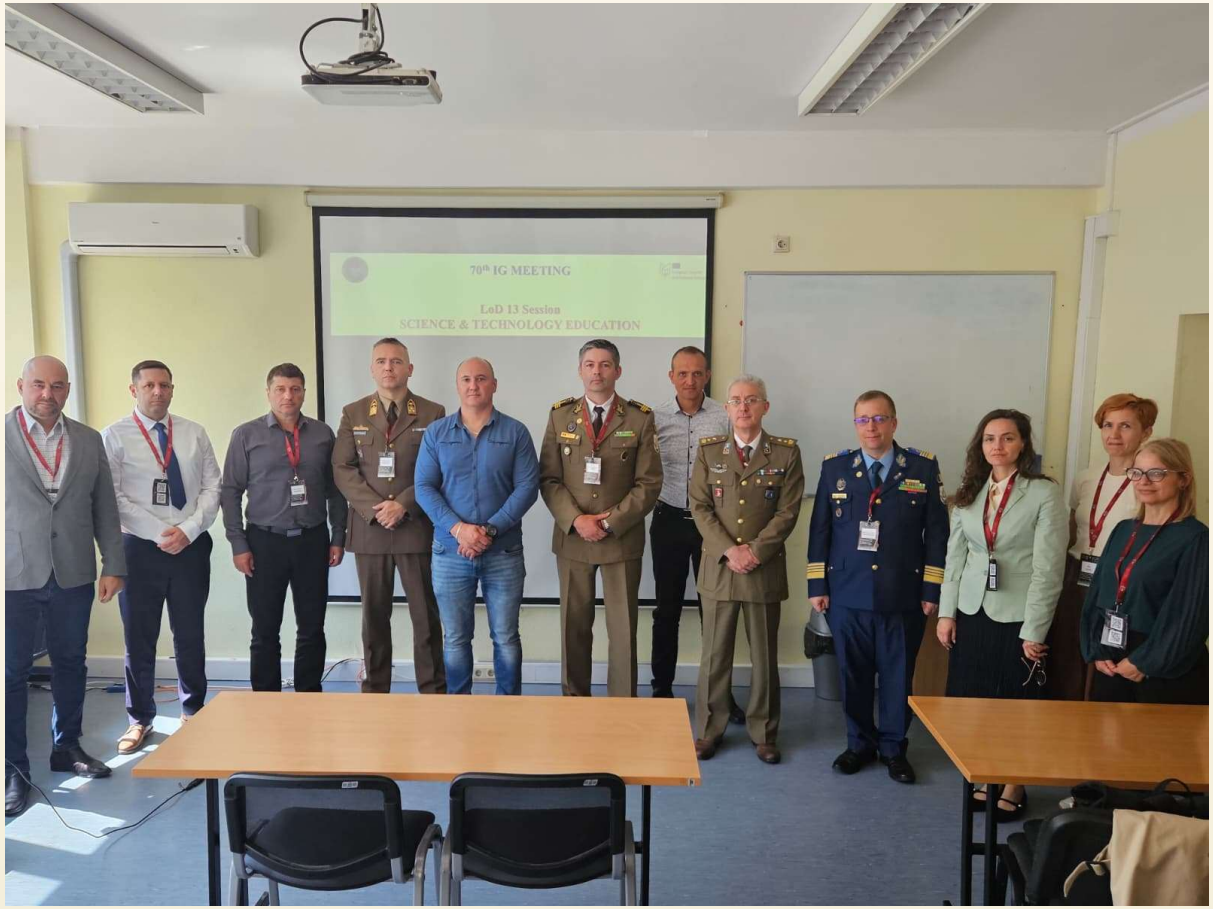
PARTICIPANTS

BG AFA, BG NMU, EE EMA, GR HAFA, GR HNA, IT AOS-UoT, RO MTA

11 participants

7 institutions

5 countries



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UNIVERSITÀ DI TORINO

NATURE FUTURES
Nature-based Higher Education for Environment Resilience

NATURE-FUTURES is an Erasmus+ project that started in December 2025 and aims to integrate Nature-Based Solutions (NbS) and Citizen Science (CS) into higher education.

The project supports universities to address climate and environmental challenges:

strengthening sustainability education

developing systemic thinking skills

fostering interdisciplinary and international collaboration

Over three years, NATURE-FUTURES will develop a **framework,** real-world case studies, a **dynamic systems model**, institutional **roadmaps** and policy **recommendations**, an online training course and a collaborative repository for educators and students.

The European Erasmus+ project NATURE FUTURES

Partners:

- **Aalborg University, Denmark** (www.aau.dk)

- **Columbus Association, France** (http://columbus-web.org)

- **University of Turin, Italy** (www.unito.it)

- **Iscte – Knowledge and Innovation / University Institute of Lisbon, Portugal** (https://conhecimentoinovacao.iscte-iul.pt)

- Marina Marchisio Conte[1], Enrico Spinello[2]
  [1]University of Turin
  [2]Italian Army Officers School

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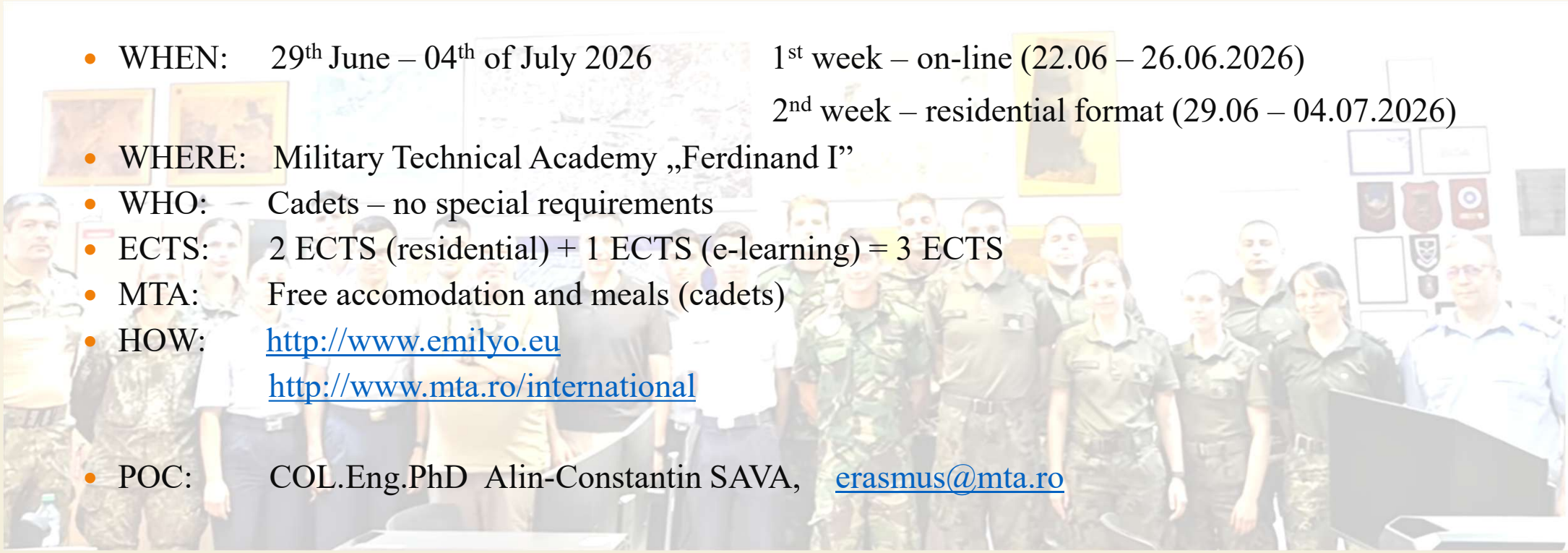
BLENDED INTENSIVE PROGRAMME: IMINT/GEOINT Analysis Module
29.06 – 04.07.2026

DETAILS



- WHEN: 29th June – 04th of July 2026
  1st week – on-line (22.06 – 26.06.2026)
  2nd week – residential format (29.06 – 04.07.2026)
- WHERE: Military Technical Academy „Ferdinand I"
- WHO: Cadets – no special requirements
- ECTS: 2 ECTS (residential) + 1 ECTS (e-learning) = 3 ECTS
- MTA: Free accomodation and meals (cadets)
- HOW: http://www.emilyo.eu
  http://www.mta.ro/international

- POC: COL.Eng.PhD Alin-Constantin SAVA, erasmus@mta.ro

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4. Development of new CMs: Optoelectronic Systems for Defense and Security
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Optoelectronic Systems for Defence and Security

Annouced partners:

BE-RMA, GR-HAFA

PL-WAT, RO-MTA

The content CM syllabus was approved within the LoD 13 meeting

Pilot edition – Spring 2027

Countries	Institution		ECTS
Romania	**Military Technical Academy "Ferdinand I"**	**Optoelectronic Systems for Defense and Security**	**3.0**

Service	Minimum Qualification of Instructors
ALL	• **Officers or civilian Lecturers:** ○ English: Common European Framework of Reference for Languages (CEFR) Level B2 or min. NATO STANAG 6001 Level 3. ○ Expertise on relevant topics. ○ Relevant academic publications.
Language **English**	

Prerequisites for international participants

- English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2.
- At least 1 year of national (military) higher education.
- Basic knowledge on technical systems for security and defence
- Security clearance: Unclassified information

Goal of the Module

- Basic principles of the Optoelectronic Systems;
- Module provides foundational and intermediate knowledge of optoelectronic systems used in modern defense and security environments;
- Explore the principles of optics, photonics, and electronic integration, followed by practical applications such as imaging, detection, laser-based systems, night-vision technologies, and surveillance solutions.

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Why Digital Mathematics Matters in Defence & Security Education

Modern defence and security environments require strong competencies in **Mathematics**, **STEM disciplines**, and **digital technologies**.

Digital skills are increasingly essential, both independently and in combination with STEM expertise, for effective decision-making and operational readiness.

Enhancing interest in Mathematics is particularly important for current and future defence and security professionals.

Contemporary digital teaching tools make mathematical concepts more accessible through:

- ✓ clearer and more intuitive problem-solving;
- ✓ interactive and easy-to-visualize applications;
- ✓ practical, real-world defence and security scenarios.

Digital Mathematics supports the development of analytical thinking, technological adaptability, and mission-oriented problem-solving skills

- Electronic warfare and cybersecurity
- Military leadership
- Logistics for defence and security
- Technical systems for defence and security
- AI for defence and security

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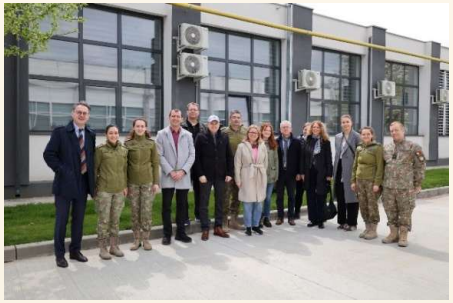
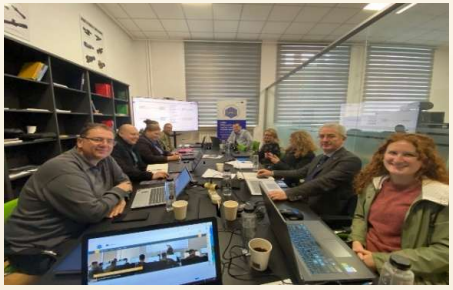
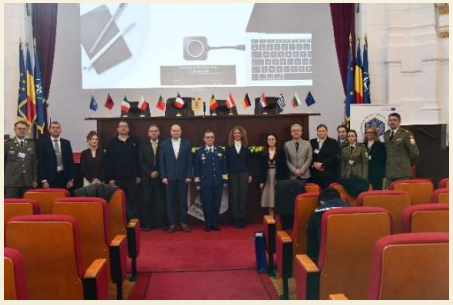
Agenda for (LTTA 3)
Bucharest, Romania, 20–24 April 2026







Programme of the LTTA3
Application of digital tools for Math courses – 2nd Edition

Timing:	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	19 Apr. 2026	20 Apr. 2026	21 Apr. 2026	22 Apr. 2026	23 Apr. 2026	24 Apr. 2026	25 Apr. 2026
8:00 - 8:50 9:00 - 9:50	ARRIVAL	Administrative activities	Presentation of Delegations and Scenarios (all participants)	08H00 – 09H00 Transport MTA to CLINCENI-MTA (20 km)	Development of Teaching Scenarios (all participants)		
10:00 - 10:50 11:00 - 11:50	ARRIVAL	Development of Teaching Scenarios (all participants)	Electronic warfare and cybersecurity (BG NMU) Senate Hall	Workshop on digital mathematics applied in defence and security education (all participants) CLINCENI-MTA (MTA's technical laboratories, 20 km away from Bucharest)	Logistics for defence and security (PL MUT&RO MTA) Senate Hall AI for Defence and Security (RO MTA&GR HAA) Senate Hall	09H00-10H00 CERC 2026 Opening Ceremony 10H00-12H00 Digital Mathematics Applications CERC 2026 Panels	09H00-11H00 CERC 2026 CLOSING CEREMONY (Optional) Aula Magna
12:00 - 12:50 13:00 - 13:50	ARRIVAL	Development of Teaching Scenarios (all participants)	Military leadership (IT UNITO) Senate Hall	13H00 – 14H00 Transport CLINCENI-MTA to MTA (20 km)	Technical systems for defence and security (RO MTA) Senate Hall 13H – 14H00 LUNCH BREAK	12H00-13H00 LTTA'S CLOSING CEREMONY Aula Magna 13H – 14H00 LUNCH BREAK	DEPARTURE
14:00 - 15:00	-	LUNCH BREAK	LUNCH BREAK	LUNCH BREAK	14H00-16H00 Field Trip Cotroceni Palace	CERC 2026 Panels (Optional)	
15:00 - 15:50 16:00 - 16:50	ARRIVAL	Working Groups	Working Groups	Working Groups			
			ICE BREAKER National Military Circle (18H00 – 21H00)			TRADITIONAL DINNER Mess hall (21H00 – 23H00)	

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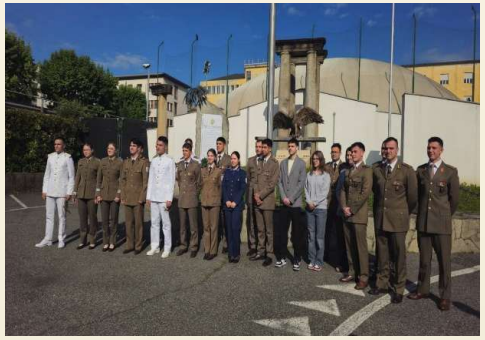
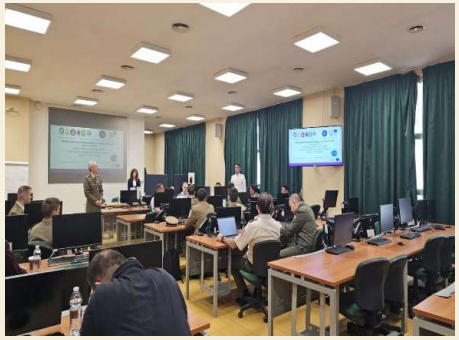
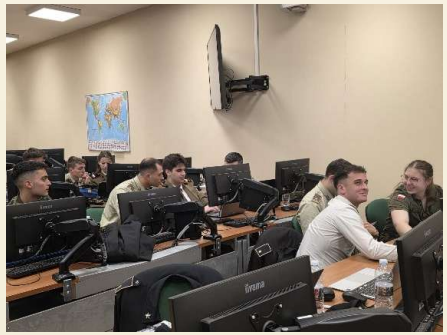
LTTA4 (for teachers and students) Turin, Italy, 18–22 May 2026):

- Develop and test Digital Mathematics scenarios for Defence and Security.
- Strengthen STEM, digital, and problem-solving skills.
- Promote collaboration between teachers and students in international teams.
- Support preparation for the future DIMAS Olympiad. Encourage innovative and interactive learning approaches.

QUESTIONS?

SUGGESTIONS?

RECOMMENDATIONS?