

4th INTERNATIONAL CONFERENCE

CHALLENGES TO NATIONAL DEFENCE IN CONTEMPORARY GEOPOLITICAL SITUATION

11-13 September, 2024
Brno, Czech Republic



PROGRAM

CNDCGS`2024

Prof. Svajonė Bekešienė
(Conference General Chair)

Prof. Šárka Hošková-Mayerová
(Conference General Co-Chair)

Assoc. Prof. Marek Sedlačík
(Conference General Co-Chair)

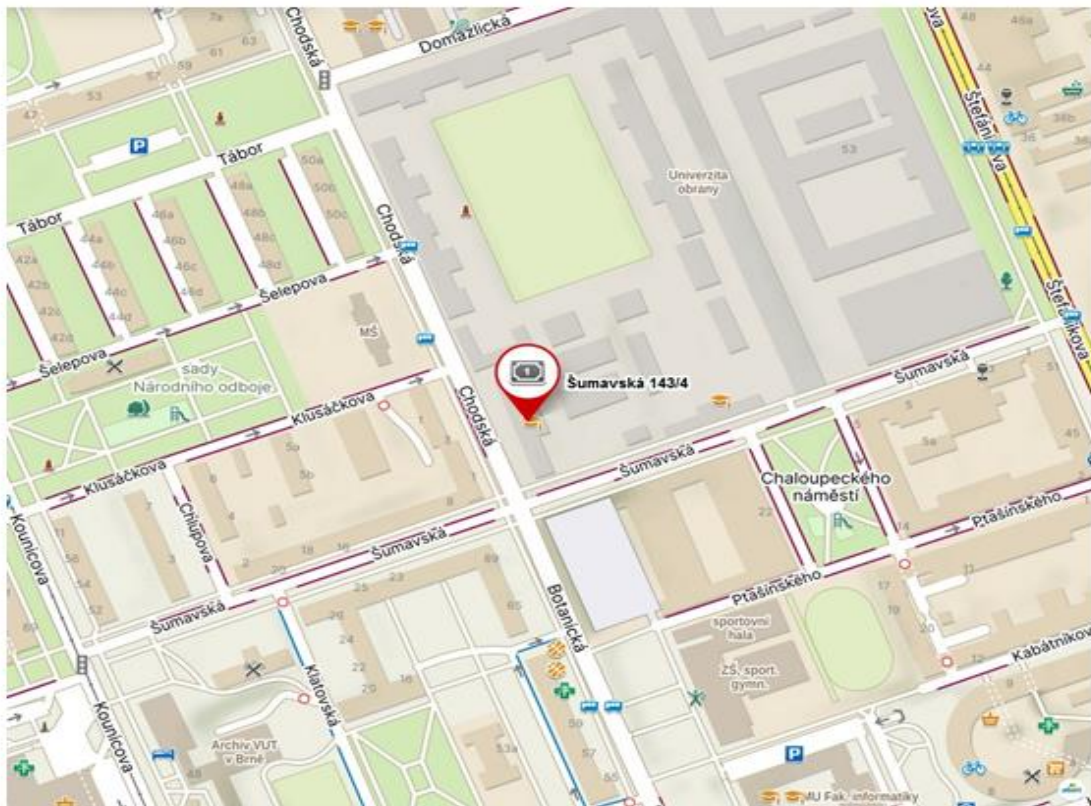
Dr. Jan Vondra
(Conference Secretary)

CONFERENCE VENUE

**The 4th Conference will take place from 11-13 September 2024.
At the Defence University Club - Šumavská 4, 662 10 Brno.**



Location map: Šumavská 4, 662 10 Brno, Czech Republic.



**UNIVERSITY OF DEFENCE, BRNO, CZECH REPUBLIC
GENERAL JONAS ŽEMAITIS MILITARY ACADEMY OF LITHUANIA
MINISTRY OF DEFENCE OF REPUBLIC OF LITHUANIA
NATO ENERGY SECURITY CENTRE OF EXCELLENCE LITHUANIA
NATIONAL DEFENCE FOUNDATION
LITHUANIAN RIFLEMEN'S UNION**

4th International Conference 2024



CHALLENGES TO NATIONAL DEFENCE IN CONTEMPORARY GEOPOLITICAL SITUATION

CNDCGS'2024

PROGRAM

4TH INTERNATIONAL SCIENTIFIC CONFERENCE

**11-13 September, 2024
Brno, Czech Republic**

SCHEDULE OF THE CONFERENCE

The fourth international scientific conference CNDCGS 2024 will be held on 11-13 September 2024 at the Defence University Club, Šumavská 4, 662 10 Brno, Czech Republic.

As a web conference, the CNDCGS 2024 will be open to virtual attendance on a secure, accessible, and user-friendly MS Teams platform for live streaming.

TUESDAY, September 10, 2024	
<i>Defence University Club, Šumavská 4, 662 10 Brno, Czech Republic</i>	
09:00-11:00	Pre-Conference Activities; Scientific committee meeting
11:00-12:00	Registration
14:00-16:00	Social Events
WEDNESDAY, September 11, 2024	
<i>Defence University Club, Šumavská 4, 662 10 Brno, Czech Republic</i>	
08:30-10:00	Registration
10:00-10:30	Opening Ceremony (Main Conference Hall)
10:30-11:30	PLENARY SESSION “<i>THE CHALLENGES OF LEADERSHIP AS THE FOCUS OF MILITARY OPERATIONS SHIFTS TO HOMELAND DEFENSE AND COLLECTIVE DEFENSE</i>”
11:30-12:00	Discussions
12:00-12:30	Coffee Break
12:30-14:00	PLENARY SESSION “<i>NEW TECHNOLOGIES INSPIRED THE DEVELOPMENT OF DEFENCE INNOVATIONS</i>”
14:00-14:15	Discussions
14:15-15:30	Lunch Break
15:30-16:30	POSTER SESSIONS
18:00-20:00	Social Events (Guided Walking Tour of the Historical Centre of Brno)
THURSDAY, September 12, 2024	
<i>Defence University Club, Šumavská 4, 662 10 Brno, Czech Republic</i>	
08:30-09:00	Registration
09:00-12:00	POSTER SESSIONS
09:00-18:00	Social Event (Lednice-Valtice Complex included in the UNESCO)
FRIDAY, September 13, 2024	
<i>Defence University Club, Šumavská 4, 662 10 Brno, Czech Republic</i>	
08:30-09:00	Registration
09:00-10:00	PLENARY SESSION “<i>STRENGTHENING SECURITY AND RESILIENCE: THE ROLE OF EDUCATION AND TRAINING IN ADDRESSING EMERGING CHALLENGES</i>”
10:00-10:30	Discussions
10:30-11:00	Coffee Break
11:00-13:00	PARALLEL ORAL SESSIONS
13:00-13:30	Closing Ceremony (Main Conference Hall)
13:30 -14:30	Lunch

CNDCGS 2024 PROGRAM OVERVIEW

TUESDAY, September 10, 2022	
<i>Defence University Club, Šumavská 4, 662 10 Brno, Czech Republic</i>	
09:30-16:30	Pre-Conference Activities; Scientific committee meeting
11:00-12:00	Registration
18:00-21:00	Social Events

WEDNESDAY, September 11, 2024	
<i>Defence University Club, Šumavská 4, 662 10 Brno, Czech Republic</i>	
08:30-10:00	Registration
10:00-10:30	<p>Opening Ceremony (Main Conference Hall)</p> <p>SPEAKERS:</p> <p>Dr. Mantas BILEIŠIS, <i>Vice-Rector for Studies and Research of General Jonas Žemaitis Military Academy of LITHUANIA</i></p> <p>Prof. Habil. dr. Oleksandr NAKONECHNYI, <i>Taras Shevchenko National University of Kyiv, UKRAINE</i></p> <p>COL Jan DROZD, Ph.D., <i>Dean of Faculty of Military Leadership, University of Defence, CZECH REPUBLIC</i></p> <p>COL Vlastimil NEUMANN, Ph.D., <i>Dean of Faculty of Military Technology, University of Defence, CZECH REPUBLIC</i></p> <p>LT COL Linas IDZELIS, <i>Commander of Lithuanian Riflemen's Union, LITHUANIA</i></p> <p>Moderator COL Jan DROZD, Ph.D., <i>Dean of Faculty of Military Leadership, University of Defence, CZECH REPUBLIC</i></p>
10:30-11:30	<p>PLENARY SESSION I (Main Conference Hall)</p> <p><i>“THE CHALLENGES OF LEADERSHIP AS THE FOCUS OF MILITARY OPERATIONS SHIFTS TO HOMELAND DEFENSE AND COLLECTIVE DEFENSE”</i></p> <p>Moderator COL Jan DROZD, Ph.D., <i>Dean of Faculty of Military Leadership, University of Defence, CZECH REPUBLIC</i></p>
	<p><i>LEADERSHIP CHALLENGES IN SHIFTING FOCUS TO HOMELAND AND COLLECTIVE DEFENSE</i></p> <p>Plenary Speaker: LT General Karel ŘEHKA, <i>Chief of the General Staff of the Czech Armed Forces, CZECH REPUBLIC</i></p>

	<p><i>CURRENT TRENDS IN LEADERSHIP: MILITARY ORGANIZATION'S ROLE</i></p> <p>Plenary Speaker: MAJ General Remigijus BALTRĖNAS, Chief of the Defence Staff of the Lithuanian Army, LITHUANIA</p>
	<p><i>SUSTAINMENT IN MULTIDOMAIN OPERATIONS</i></p> <p>Plenary Speaker: MAJ General Róbert BIELENÝ, Director of Logistic Division, Ministry of Defence and Armed Forces, CZECH REPUBLIC</p>
	<p><i>CHALLENGES TO SENIOR LEVEL PROFESSIONAL MILITARY EDUCATION. OBSERVATIONS FROM THE BALTIC DEFENCE COLLEGE</i></p> <p>Plenary Speaker: COL (ret), Ph.D. Dr Hab., Eugeniusz CIEŚLAK, Course Director, Senior Leaders' Course, Higher Command Studies Course, Baltic Defence College Tartu, ESTONIA</p>
11:30-12:00	Discussions
12:00-12:30	Coffee Break
12:30-14:00	<p>PLENARY SESSION II (Main Conference Hall)</p> <p><i>“NEW TECHNOLOGIES INSPIRED THE DEVELOPMENT OF DEFENCE INNOVATIONS”</i></p> <p>Moderator COL Ing. Vlastimil NEUMANN, Ph.D., Dean of Faculty of Military Technology, University of Defence, CZECH REPUBLIC</p>
	<p><i>THE USE OF DIGITAL GEOGRAPHIC DATA FOR THE EVALUATION OF THE AREA OF INTEREST</i></p> <p>Plenary Speaker: COL Assoc. Prof. Martin HUBÁČEK, Ph.D., Head of Department of Military Geography and Meteorology, Faculty of Military Technology, University of Defence, CZECH REPUBLIC</p>
	<p><i>FAILURE ANALYSIS: IMPACTS ON SUSTAINABILITY FOR NATIONAL DEFENCE</i></p> <p>Plenary Speaker: Dr. Fuad KHOSHNAW, Senior Academic and Researcher in the School of Engineering and Sustainable Development at De Montfort University (DMU), UNITED KINGDOM</p>
	<p><i>ADDITIVE MANUFACTURING TECHNOLOGIES IN MILITARY LOGISTICS</i></p> <p>Plenary Speaker: Dr. Aidias Vasilis VASILIAUSKAS, Professor of Logistics and Defence Technology Management Scientific Group, Jonas Žemaitis Military Academy of Lithuania Vilnius, LITHUANIA</p>
	<p><i>DAVID AGAINST GOLIATH - EUROPEAN APPROACH TO NEW MILITARY TECHNOLOGIES AND UKRAINIAN WAR IMPROVISATIONS</i></p> <p>Plenary Speaker: Artur PLOKŠTO, Lecturer of Logistics and Defence Technology Management Scientific Group, Jonas Žemaitis Military Academy of Lithuania Vilnius, LITHUANIA</p>
14:00-14:15	Discussions
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FRIDAY, September 13, 2024	
Defence University Club, Šumavská 4, 662 10 Brno, Czech Republic	
08:30-09:00	Registration
09:00-10:00	<p>PLENARY SESSION III (Main Conference Hall)</p> <p><i>“STRENGTHENING SECURITY AND RESILIENCE: THE ROLE OF EDUCATION AND TRAINING IN ADDRESSING EMERGING CHALLENGES”</i></p> <p>Moderator Prof. Šárka MAYEROVÁ, Ph.D., Faculty of Military Technology, University of Defence, CZECH REPUBLIC</p>
	<p><i>THE ROLE OF TRAINING IN STRENGTHENING INDIVIDUAL AND COLLECTIVE RESILIENCE</i></p> <p>Plenary Speaker: Dr. Rasa SMALIUKIENĖ, Prof. Ph.D., Research Group for Security Institutions Management, Jonas Žemaitis Military Academy of Lithuania, Vilnius, LITHUANIA</p>
	<p><i>INTERPLAY BETWEEN UNIT-LEVEL COMPETENCIES AND PSYCHOLOGICAL RESILIENCE IN MILITARY ORGANIZATIONS</i></p> <p>Plenary Speaker: Dr. Svajonė BEKEŠIENĖ, Prof., Ph.D., Logistics and Defence Technology Management Research Group, Jonas Žemaitis Military Academy of Lithuania, Vilnius, LITHUANIA</p>
	<p><i>BUILDING RESILIENT FORCES: DEVELOPING SOLDIER AND CADET RESILIENCE IN MILITARY SERVICE</i></p> <p>Plenary Speaker: MAJ Rosita KANAPECKAITĖ, Chief Psychologist of General Jonas Žemaitis Military Academy of Lithuania, Vilnius, LITHUANIA</p>
	<p><i>BUILDING A STRONG ARMY: THE CRUCIAL ROLE OF SKILLED AND MOTIVATED PERSONNEL</i></p> <p>Plenary Speaker: Dr. Marek SEDLAČÍK, Assoc. Prof., PhD, Vice-Rector for Education and Students Issues, University of Defence, Brno, CZECH REPUBLIC</p>
	<p><i>LANGUAGE EDUCATION IN THE CZECH ARMED FORCES AND MOTIVATION TO LEARN A SECOND LANGUAGE</i></p> <p>Plenary Speaker: Jiří VÁPENÍK, M.A., Director of the Department of Mod Education, Language Centre, University of Defence, Brno, CZECH REPUBLIC</p>

10:00-10:30	Discussions
10:30-11:00	Coffee Break
11:00-13:00	<p>PARALLEL ORAL SESSIONS</p> <p><i>Ph.D. STUDENTS COMPETITIONS</i> – Main Conference Hall <i>Moderators:</i> Assoc. Prof. Kamila HASILOVÁ, Ph.D., Faculty of Military Leadership, University of Defence, CZECH REPUBLIC Assoc. Prof. Jiří NEUBAUER, Ph.D., Faculty of Military Leadership, University of Defence, CZECH REPUBLIC</p> <p><i>ORAL PARTICIPANTS PRESENTATIONS</i> – Room 1 <i>Moderators:</i> Dr. Jan JEKL, Ph.D., Faculty of Military Technology, University of Defence, CZECH REPUBLIC Dr. Veronika LACINOVÁ, Ph.D., Faculty of Military Leadership, University of Defence, CZECH REPUBLIC</p> <p><i>ORAL PARTICIPANTS PRESENTATIONS</i> – Room 2 <i>Moderators:</i> Assoc. Prof. František VÍŽDA, Ph.D., Faculty of Military Technology, University of Defence, CZECH REPUBLIC Dr. Lucie HAMPELOVÁ, Ph.D., Faculty of Military Leadership, University of Defence, CZECH REPUBLIC</p> <p><i>ORAL PARTICIPANTS PRESENTATIONS</i> – Room 3 <i>Moderators:</i> Dr. Pavlína RAČKOVÁ, Ph.D., Faculty of Military Technology, University of Defence, CZECH REPUBLIC Assoc. Prof. Irena TUŠER, Ph.D., AMBIS University, CZECH REPUBLIC</p> <p><i>ORAL PARTICIPANTS PRESENTATIONS</i> – Room 4 <i>Moderators:</i> Prof. Pavel OTRÍSAL, Ph.D., Department of Adapted Physical Activities, Faculty of Physical Culture, Palacký University Olomouc, CZECH REPUBLIC Dr. Radovan POTŮČEK, Ph.D., Faculty of Military Technology, University of Defence, CZECH REPUBLIC</p>
13:00-13:30	Closing Ceremony (Main Conference Hall)
13:30-14:00	Lunch

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PREFACE

The 4th International Conference Challenges to National Defence in the Contemporary Geopolitical Situation (CNDCGS-2024) is an international forum for the exchange of innovative ideas in the domain of military technology and society security. The CNDCGS-2024 will be aimed at sharing the latest information on the national defence issues in the contemporary geopolitical situation. The primary goal will be to present the highest quality research results on different aspects of defence. The main areas covered in plenary sessions included sustainable defence solutions, defence technologies, environmental issues, modern technologies, multi-criteria decision-making, and other relevant topics related to specific challenges to the European defence in the contemporary geopolitical situation.

The patronage of the conference was kindly taken over by the Rector-Commandant of the University of Defence colonel GST doc. Ing. Jan FARLÍK, Ph.D. and the deans of both Brno faculties: Faculty of Military Leadership Col Ing. Jan DROZD, Ph.D. and Faculty of Military Technology COL Ing. Vlastimil NEUMANN, Ph.D.

CONFERENCE CHAIRS

ORGANIZERS

Prof. Svajonė BEKEŠIENĖ

Conference General Chair
General Jonas Žemaitis Military Academy of Lithuania

Prof. Šárka HOŠKOVÁ-MAYEROVÁ

Conference General Co-Chair
University of Defence, Czech Republic

Assoc. Prof. Marek SEDLAČÍK

Conference General Co-Chair
University of Defence, Czech Republic

Dr. Jan VONDRA

Conference Secretary
Masaryk University, Brno, Czech Republic

MEMBERS:

Assoc. Prof. Jiří Neubauer (University of Defence, Czech Republic)
Prof. Aidas Vasilis Vasiliauskas (Military Academy of Lithuania)
Prof. Oleksandr Nakonechnyi (Taras Shevchenko National University of Kyiv)
Assoc. Prof. Jaroslav Michálek (University of Defence, Czech Republic)
Dr. Veronika Lacinová (University of Defence, Czech Republic)
Assoc. Prof. Olga Navickienė (Military Academy of Lithuania)
Dr. Lucie Hampelová (University of Defence, Czech Republic)
Dr. Pavlína Račková (University of Defence, Czech Republic)
Dr. Jan Jekl (University of Defence, Czech Republic)
Assoc. Prof. Irena Tušer (AMBIS University, Czech Republic)
Tomas Greičiūnas (Military Academy of Lithuania)

SCIENTIFIC COMMITTEE

Assoc. Prof. Paul BERG, U.S. Army Command and General Staff College, Kansas State University, (USA)
Prof. Svajonė Bekešienė, Military Academy of Lithuania (LITHUANIA)
Maj. Ph.D. Klára Cibulová, University of Defence (CZECH REPUBLIC)
Prof. Eugeniusz Ciesliak, University of Military Technology (POLAND)
Prof. James Edward Groccia, Auburn University (USA)
Col. of the General Staff. Assoc. Prof. Vladan Holcner, University of Defence (CZECH REPUBLIC)
Prof. Martin Holmberg, Swedish Defence University (SWEDEN)
Assoc. Prof. Kamila Hasilová, University of Defence (CZECH REPUBLIC)
Prof. Volodymyr Hutsaylyuk, Military University of Technology (POLAND)
Prof. Šárka Hošková-Mayerová, University of Defence (CZECH REPUBLIC)
Prof. Fuad Khoshnaw, Ph.D., FHEA, CEng., De Montfort University (UNITED KINGDOM)
Prof. Cristina Flaut, Ovidius University (ROMANIA)
Prof. Jan Furch, University of Defence (CZECH REPUBLIC)
Col. Ing. Jan Drozd, Ph.D., University of Defence (CZECH REPUBLIC)
Lt. Col. Prof. Ing. Petr Stodola, University of Defence (CZECH REPUBLIC)
Prof. Gerry Larson, Swedish Defence University (SWEDEN)
Prof. Fabrizio Maturo, University of Campania (ITALY)
Assoc. Prof. Sabine Mengelberg, Netherlands Defence Academy (HOLLAND)
Prof. Mirosław Minkina, University of Natural Sciences and Humanities (POLAND)
Assoc. Prof. Olga Navickienė, Military Academy of Lithuania (LITHUANIA)
LTC Ing. Vlastimil Neumann, Ph.D. University of Defence (CZECH REPUBLIC)
Dr. Soili Paananen, Finnish National Defence University (FINLAND)
Assoc. Prof. Rolanda Kazlauskaitė-Markelienė, Military Academy of Lithuania (LITHUANIA)
Col. Dr. R. Kostrow, Military Institute of Armament Technology (POLAND)
Prof. Rasa Smaliukienė, Military Academy of Lithuania (LITHUANIA)
Assoc. Prof. Marek Sedlačík, University of Defence (CZECH REPUBLIC)
Prof. Lucjan Śnieżek, Military University of Technology (POLAND)
Prof. Ing. Pavel Otrisal, Palacký University Olomouc (CZECH REPUBLIC)
Assoc. Prof. Irena Tušer, AMBIS University, (CZECH REPUBLIC)
Assoc. Prof. Alena Vagaská, Prešov Technical University of Košice (SLOVAK REPUBLIC)
Prof. Aidas Vasilis Vasiliauskas, Military Academy of Lithuania (LITHUANIA)
Prof. Ing. Zdeněk Vintr, CSc. University of Defence (CZECH REPUBLIC)
Col. Assoc. Prof. Dimitar Yankov Dimitrov, Ph.D. Rakovski National Defence College (BULGARIA)
Assoc. Prof. Madeleine Al Tahan, Abu Dhabi University, (UNITED ARAB EMIRATE)

ORGANISERS, SPONSORS & EXHIBITORS

Organiser



University of Defence, Brno, Czech

The University of Defence (Czech: Univerzita obrany, UO) is the only military institution of higher education of the Czech Armed Forces. Established as of 1 September 2004, it was formed by merging three existing institutions: Military Academy Brno (established in 1951), the Military University of the Ground Forces Vyškov (established in 1947) and the Military Medical Academy Hradec Králové (re-established in 1988). University of Defence represents the Army of the Czech Republic's defence and security research and development centre. The fields of science fostered at the University of Defence primarily relate to defence applied research, to forces and population protection, or the economics or medicine fields applied to military.

<https://unob.cz/>

Organiser



General Jonas Žemaitis Military Academy of Lithuania

The General Jonas Žemaitis Military Academy of Lithuania (MAL) is the only university-type higher education institution in Lithuania with the main purpose and mission to train and educate well-rounded, critically-thinking and self-sufficient officers. High-quality officer training and education is ensured by effective and well-combined university and military studies based on modern teaching methods, scientific researches and the highest competences of lecturers, military instructors and other academic staff.

<http://www.lka.lt/en/homepage.html>

Organiser

The Ministry of National Defence of the Republic of Lithuania



MINISTRY OF NATIONAL DEFENCE
REPUBLIC OF LITHUANIA

The Ministry of National Defence of the Republic of Lithuania's mission is to form and implement the defense policy of the Republic of Lithuania by training the armed forces capable to ensure independently or together with the Allies sovereignty, integrity of territory and security of the citizens of the Republic of Lithuania, at the same time contributing to global and regional stability.

<http://kam.lt/en/title.html>

Collaborator
AMBIS University

Website: <https://www.ambis.cz/>



Collaborator
Kaunas University of Technology

Website: <https://en.ktu.edu/>



Collaborator
UAV Factory Ltd

Website: www.uavfactory.com



Collaborator
Senop Oy

Website: <https://senop.fi/en/index>



Collaborator
AIM Infrarot-Module GmbH

Website: www.aim-ir.com



Collaborator
Patria Oyj

Website: <http://patria.fi>



Collaborator
Baltic Defence & Technology



Website: <http://baltic-deftech.lt/>

Collaborator
Kongsberg Gruppen ASA



Website: www.kongsberg.com

KONGSBERG

Collaborator
NAMMO



Website: www.nammo.com

Collaborator
SAAB



SAAB

Website: www.saabgroup.com

Collaborator

**Baltic Institute of
Advanced Technology (BPTI)**

BPTI

Website: <http://bpti.eu>

BALTIJOS
PAŽANGIŲ TECHNOLOGIJŲ
INSTITUTAS

Collaborator

LITAK TAK

 **LitakTak**
AIR DEFENCE SOLUTIONS

Website: <https://www.litaktak.com/>

Sponsor

**National Defence
Foundation**



Website: <https://fondas.eu/>

COGITA UNIVERSALITER – AGE REGIONALITER
GYNYBOS PARAMOS FONDAS

Sponsor

NATO Energy Security Centre of Excellence

Website: www.enseccoe.org



PLENARY SPEAKERS

LT General Karel ŘEHKA

CHIEF OF THE GENERAL STAFF OF THE CZECH ARMED FORCES,
CZECH REPUBLIC

LEADERSHIP CHALLENGES IN SHIFTING FOCUS TO HOMELAND AND COLLECTIVE DEFENSE

FOCUS ON

As military operations increasingly pivot from global interventions to prioritizing homeland defense and collective defense, leadership within defense organizations faces a unique set of challenges. This shift demands a recalibration of strategies, priorities, and operational frameworks, presenting complex issues that require adaptive and forward-thinking leadership.

As the focus shifts, the nature of military training and readiness must also evolve. Leaders must ensure that personnel are prepared for new types of threats, such as cyberattacks, terrorism, and hybrid warfare, which are more prevalent in homeland and collective defense scenarios. This demands continuous adaptation of training programs and a commitment to maintaining high levels of readiness. Moreover, the shift to homeland and collective defense presents a multifaceted challenge for military leaders. Success in this new environment requires adaptability, strategic foresight, and a commitment to building strong alliances and maintaining public trust. Leaders who can navigate these complexities will be better equipped to protect their nations and uphold global security in an increasingly uncertain world.

Keywords: *Homeland Defense; Collective Defense; Military Leadership; Cybersecurity Threats; Training and Readiness; Strategic Adaptation; Alliance Building.*



MAJ General Remigijus BALTRĖNAS

CHIEF OF THE DEFENCE STAFF OF THE LITHUANIAN ARMY,
LITHUANIA

MILITARY CURRENT TRENDS IN LEADERSHIP: MILITARY ORGANIZATION'S ROLE

FOCUS ON

Leadership within military organizations is not merely about command and control; it is a dynamic and multifaceted process that is central to the effective functioning of armed forces in the face of geopolitical complexities. The global landscape has experienced seismic shifts, characterized by the rise of non-state actors, the resurgence of geopolitical tensions, technological advancements, and unconventional threats. In this context, military leaders must navigate a landscape that is increasingly volatile, uncertain, complex, and ambiguous (VUCA).

One of the primary roles of military leadership in this environment is to provide strategic guidance and direction to their forces. Leaders must possess a deep understanding of the geopolitical dynamics at play, including regional



power struggles, transnational threats, and emerging security challenges. They must anticipate future threats and develop proactive strategies to counter them, all while balancing competing priorities and limited resources.

Keywords: *Military Leadership; Geopolitical Dynamics; Non-State Actors; VUCA Environment; Strategic Guidance; Emerging Security Challenges; Resource Management.*

MAJ General Róbert BIELENÝ

DIRECTOR OF LOGISTIC DIVISION, MINISTRY OF DEFENCE
AND ARMED FORCES, CZECH REPUBLIC

SUSTAINMENT IN MULTIDOMAIN OPERATIONS

FOCUS ON

Sustainment in Multidomain Operations (MDO) presents several key challenges due to the complexity of modern warfare, where operations span across land, air, sea, space, and cyber domains. The integration of these diverse domains requires seamless logistical support to ensure that forces remain equipped, fueled, and ready to fight.

One major challenge is the need for real-time coordination and communication across multiple domains, which requires advanced technologies and secure networks. Another issue is the vulnerability of supply chains, especially in contested environments where adversaries can disrupt logistics through cyberattacks, electronic warfare, or physical interdiction. Furthermore, sustaining operations in remote or austere locations complicates the timely delivery of supplies and medical care. Adapting sustainment strategies to these challenges is critical to maintaining operational readiness in the face of rapidly evolving threats.

Keywords: *Sustainment; Multidomain Operations (MDO); modern warfare; logistical support; land; air; sea; space; cyber domains; real-time coordination; communication; advanced technologies.*

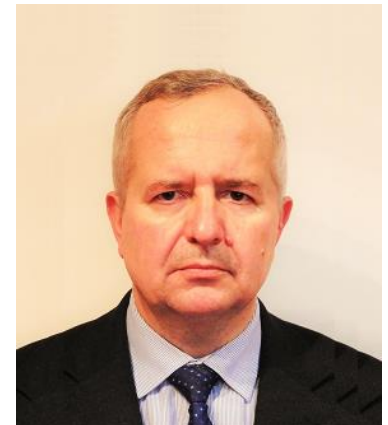
Col (ret) Eugeniusz CIEŚLAK

PH.D. DR HAB., COURSE DIRECTOR, SENIOR LEADERS' COURSE,
HIGHER COMMAND STUDIES COURSE, BALTIC DEFENCE COLLEGE
TARTU, ESTONIA

CHALLENGES TO SENIOR-LEVEL PROFESSIONAL MILITARY EDUCATION. OBSERVATIONS FROM THE BALTIC DEFENCE COLLEGE

FOCUS ON

The ongoing debate pertains specifically to senior-level professional military education, which aims to equip senior officers and their civilian counterparts with the skills necessary for strategic-level responsibilities. The complexity of challenges inherent at this level has been acknowledged by politicians and government officials cooperating with the military. In the United States, congressional representatives have noted a gap in professional military education, observing that while it effectively prepares officers for joint operations, it falls short in fostering cooperation at the strategic level with politicians who often lack historical context and cultural insight. While recent institutional efforts have been made to enhance synergy senior-level professional military education and lower-tier levels of education within individual branches of armed forces, tangible outcomes are likely to materialize only in the foreseeable future.



Keywords: *Professional Military Education; Senior Officers; Strategic-Level Responsibilities; Civil-Military Cooperation; Joint Operations; Historical Context; Educational Synergy.*

Dr. Aidas VASILIS VASILIAUSKAS

PROF. PH.D., LOGISTICS AND DEFENCE TECHNOLOGY
MANAGEMENT RESEARCH GROUP, JONAS ŽEMAITIS
MILITARY ACADEMY OF LITHUANIA, VILNIUS, LITHUANIA

ADDITIVE MANUFACTURING TECHNOLOGIES IN MILITARY LOGISTICS

FOCUS ON

We are rapidly approaching the onset of the 5th industrial revolution, which will be fueled by the latest innovations such as advanced artificial intelligence, robotics, nanotechnology, and biotechnology. However, currently we are still in the integration and testing phase of technologies from the 4th industrial revolution, the application of which is crucial in many industrial fields. To enhance the capabilities of logistics, “Logistics 4.0” innovations (the Internet of Things, big data analytics, artificial intelligence, block chain technology, additive manufacturing, cloud computing, and cybersecurity) are being utilized.

According to NATO’s science and technology trends for the years 2023–2043, additive manufacturing technologies are identified as having a high significance coefficient and are classified as disruptive technologies, meaning that they conceptually change previous operational procedures and shows the ability to revolutionize traditional manufacturing processes and supply chains. Additive manufacturing technologies have already reached an advanced stage of development, demonstrated in relevant environments, and it is anticipated that their potential application in military environments and logistics will be focused on the period between 2025 and 2030.

Keywords: *5th Industrial Revolution; Logistics 4.0; Additive Manufacturing; Artificial Intelligence; Disruptive Technologies; Supply Chain Innovation; NATO Science and Technology Trends.*

Dr. Fuad KHOSHNAW

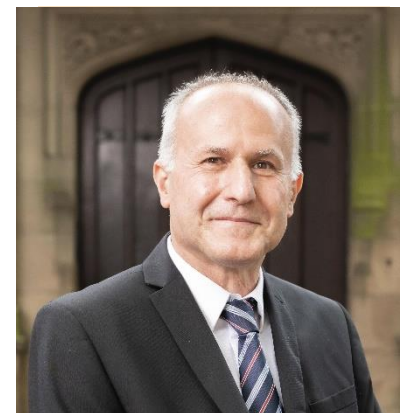
PH.D., SFHEA, CENG., SCHOOL OF ENGINEERING AND
SUSTAINABLE DEVELOPMENT, DE MONTFORT UNIVERSITY (DMU)
– LEICESTER, UNITED KINGDOM

SUSTAINABLE DEFENSE BY ADDRESSING MECHANICAL WEAPON MALFUNCTIONS: BARREL SAFETY AS AN EXAMPLE

FOCUS ON

This presentation explores the critical role of mechanical reliability in sustaining military effectiveness, with a specific focus on weapon systems, particularly barrel integrity. It will explain common types of mechanical failures—such as fatigue, erosion, wear, creep, and corrosion—and examine how these factors interact under combat conditions to compromise weapon performance.

Emphasizing the importance of battlefield readiness, the presentation will also outline practical methods and tools that soldiers can use to temporarily repair and maintain their weapons, ensuring operational functionality when it



matters most. This discussion highlights the essential role of addressing mechanical failures in achieving sustainable defence and ensuring the safety of military personnel.

Keywords: *Failure analysis; Sustainability in national defence; Mechanical reliability; Weapon systems; Barrel integrity; Mechanical failures; Battlefield readiness; Temporary repairs.*

Artur PLOKŠTO

LECTURER OF LOGISTICS AND DEFENCE TECHNOLOGY
MANAGEMENT RESEARCH GROUP, JONAS ŽEMAITIS
MILITARY ACADEMY OF LITHUANIA, VILNIUS, LITHUANIA



DAVID AGAINST GOLIATH - EUROPEAN APPROACH TO NEW MILITARY TECHNOLOGIES AND UKRAINIAN WAR IMPROVISATIONS

FOCUS ON

On 24 February, Russian aggression against Ukraine began, during which the Russian side used practically all of its weapons. Many of the models used have not been used in combat conditions so far, creating an opportunity to see their real possibilities. Western weapons began to appear on the Ukrainian side, hence the possibility of comparing the defence technologies of both sides. The report presents the basic conclusions from the initial analysis of the weapons used in the war, their real capabilities, the facts of the appearance of old, long-forgotten equipment on the battlefield, and improvisations, perhaps setting the directions for the development of future weapon systems.

Keywords: *Russian aggression; weapons; combat conditions; defence technologies; battlefield.*

COL Martin HUBÁČEK

ASSOCIATE PROFESSOR, PHD AND HEAD OF THE DEPARTMENT
OF MILITARY GEOGRAPHY AND METEOROLOGY, FACULTY OF
MILITARY TECHNOLOGIES, UNIVERSITY OF DEFENCE, BRNO,
CZECH REPUBLIC



THE USE OF DIGITAL GEOGRAPHIC DATA FOR THE EVALUATION OF THE AREA OF INTEREST

FOCUS ON

The inception of digital geographic data traces back to the 20th century. With the advent of contemporary technologies, the domain of digital geographic data creation has witnessed significant advancements. These advancements have facilitated the transformation of an escalating volume of thematic data into digital format, thereby enhancing the precision of location and augmenting the quality of existing data. The accessibility of these data has opened new avenues for their application across diverse sectors of human activity, with security and defense being no exception.

In the context of military activity planning, the evaluation of the area of interest constitutes a critical procedure. Although maps, particularly topographic ones, continue to be an essential foundation for the evaluation of the

area of interest, the utilization of digital geographic data is progressively gaining prominence in this realm. From the perspective of the evaluation of the area of interest, it is imperative to focus particularly on fundamental geographic databases that delineate individual terrain objects, soil databases, and spatial outputs that describe the meteorological conditions in the area of interest.

These geographic data can be enriched with detailed digital elevation models generated by airborne laser scanning technology, remote sensing data, and sociogeographic data that depict other geographic phenomena in the area of interest associated with human activity. This comprehensive integration of data provides a robust framework for the evaluation and planning of military activities.

Keywords: *Digital geographic data; Military planning; Topographic maps; Remote sensing; Geographic databases.*

Dr. Svajonė BEKEŠIENĖ

PROF., PH.D., LOGISTICS AND DEFENCE TECHNOLOGY
MANAGEMENT RESEARCH GROUP, JONAS ŽEMAITIS MILITARY
ACADEMY OF LITHUANIA, VILNIUS, LITHUANIA

INTERPLAY BETWEEN UNIT-LEVEL COMPETENCIES AND PSYCHOLOGICAL RESILIENCE IN MILITARY ORGANIZATIONS

FOCUS ON

The current operational military environment is changing, complex, unpredictable, and ambiguous. Due to such situations, soldiers are constantly forced to think about their values, norms, and roles that should be part of their profession. The conducted studies show that the development of psychological resilience in military personnel is significantly influenced by unit-level competences and family-level support. High unit-level skills enhance various facets of resilience by providing expertise, cohesion, leadership, and preparedness. However, the family remains the most critical factor, offering emotional stability, communication, and adaptability. Building trust among family members is essential for fostering a resilient approach to military life. As military organizations strive to develop resilient forces, they must focus on enhancing unit-level competences and supporting family relationships to ensure soldiers are equipped to face the challenges of their service.

Keywords: *Psychological resilience; Military environment; Unit-level competences; Family support; Soldier well-being*

Dr. Rasa SMALIUKIENĖ

PROF. PH.D., RESEARCH GROUP FOR SECURITY INSTITUTIONS
MANAGEMENT, JONAS ŽEMAITIS MILITARY ACADEMY OF
LITHUANIA, VILNIUS, LITHUANIA

THE ROLE OF TRAINING IN STRENGTHENING INDIVIDUAL AND COLLECTIVE RESILIENCE

FOCUS ON

Developing emotional resilience requires two categories of resources: organisational resources, such as autonomy, peer support, and professional development opportunities; and individual resources, which are determined by personal characteristics. These two categories of resources, professional and personal, determine individual and collective resilience.



Identifying which personal and professional resources to enhance in individual resilience training can be challenging. Previous research has identified several resources that can be developed through resilience training programmes. However, due to the limited scope and duration of these programmes, it is crucial to prioritize the resources that would benefit most from training. Therefore, the aim of this presentation will be focussed on the essential elements that should be included in the training programme to have the greatest impact on building resilience in soldiers.

Keywords: *Emotional resilience; Organizational resources; Individual resources; Resilience training; Soldier development.*

MAJ Rosita KANAPECKAITĖ

CHIEF PSYCHOLOGIST OF GENERAL JONAS ŽEMAITIS
MILITARY ACADEMY OF LITHUANIA, VILNIUS, LITHUANIA

BUILDING RESILIENT FORCES: DEVELOPING SOLDIER AND CADET RESILIENCE IN MILITARY SERVICE

FOCUS ON

The talk will briefly address the importance of building resilient forces as a multifaceted endeavor that requires commitment from all levels of a military organization. By implementing comprehensive training programs, providing robust support systems, and fostering an organizational culture that values resilience, military organizations can develop soldiers and cadets who are capable of thriving in the face of adversity. The resilience of military personnel not only enhances their individual performance and well-being but also contributes to the overall effectiveness and readiness of the military. As the nature of military service continues to evolve, the importance of resilience will only grow, making it an indispensable quality for the soldiers and cadets of tomorrow.

Keywords: *Resilient forces; Military training; Organizational culture; Soldier well-being; Military readiness.*

Dr. Marek SEDLAČÍK

ASSOCIATE PROFESSOR, RNDR., PH.D.
VICE-RECTOR FOR EDUCATION AND STUDENTS ISSUES
UNIVERSITY OF DEFENCE, BRNO, CZECH REPUBLIC

BUILDING A STRONG ARMY: THE CRUCIAL ROLE OF SKILLED AND MOTIVATED PERSONNEL

FOCUS ON

Physical activity in adolescents is one of the important factors influencing the health and life of adolescents and, consequently, the army of the given country. The Czech Army recruits' new members from among the adult citizens of the Czech Republic with a clean criminal record and appropriate education, capabilities, age, and health. Training after the commencement of service requires the use of methods and means that are appropriate



for the level of new recruits and that will secure the minimum required level of overall preparedness. Motivated, capable, well-trained and qualified military personnel are necessary for the success of any army. Therefore, the planning and management of training requires information about the condition of selected target groups of citizens of the Czech Republic, so that the training system is prepared for the condition of future participants and where appropriate supplemented with new features.

Keywords: *Adolescent physical activity; Health and fitness in youth; Czech Army recruitment; Military training preparedness; Soldier qualifications; Physical fitness assessment; Recruitment criteria; Military personnel training; Training system planning.*

Mgr. Jiří VÁPENÍK

DIRECTOR OF THE DEPARTMENT OF MOD EDUCATION,
LANGUAGE CENTRE, UNIVERSITY OF DEFENCE, BRNO,
CZECH REPUBLIC

LANGUAGE EDUCATION IN THE CZECH ARMED FORCES AND MOTIVATION TO LEARN A SECOND LANGUAGE



FOCUS ON

Effective communication in a common language is a fundamental requirement for successful cooperation among NATO member countries. Recognizing this, the leadership of the Czech Armed Forces proactively sends its personnel to language courses with the goal of obtaining the NATO STANAG 6001 certificate. However, a critical question remains: Do these soldiers truly identify with the assignment to these courses, and are they genuinely motivated to learn a foreign language? Is language learning a personal aspiration for military personnel, or do they perceive it merely as a necessary duty?

Keywords: *NATO STANAG 600; Language learning motivation; Czech Armed Forces; Military personnel; Language courses; Effective communication; Foreign language acquisition; Military training; Personal aspiration vs duty; Cooperation among NATO members.*

SOCIAL EVENTS

Several social events are organized as part of CNDCGS 2024. The events can be booked during registration. Events are available in English. Below you will find descriptions of the available events.

SIGHTSEEING TOUR IN BRNO

Brno is a city in Moravia, relatively close to Czechia's borders with Austria and Slovakia. It is the country's second largest city after Prague and the largest city of Moravia. It was the capital of Moravia between 1641 and 1948.

We invite you to the walking tour that will give you an overview of the pleasant center of the second-largest city in the Czech Republic. The city of central legal institutions, six universities, international trade fairs, motor racing circuit, the oldest railway track, and the first electrified theatre in Central Europe; a place connected with personalities like Charles IV, Napoleon Bonaparte, Tomas Garique Masaryk, Leos Janacek, Gregor Johann Mendel, etc.

We will see the squares, town halls, the cathedral and other churches, parks, and also modern statues that have become new tourist attractions of the city, all combined with legends, stories, and interesting facts from local as well as European history.

We will walk the streets the layout of which has not changed since the 13th century and visit:

- ✓ Vegetable Market,
- ✓ Old Town Hall,
- ✓ St Peter and Paul Cathedral,
- ✓ New Town Hall,
- ✓ Freedom Square,
- ✓ St James Church,
- ✓ Moravian Square.

If the weather is cold, it is possible to hide in the church interiors, covered passageways, or visit the Capuchin Crypt or the Ossuary.

LEDNICE AND VALTICE CULTURAL LANDSCAPE

Lednice and Valtice Cultural Landscape is one of 17 UNESCO sites in the Czech Republic and combines grand palaces, lovely formal and landscaped gardens, picturesque towns, Jewish heritage, beautiful and unspoiled countryside, ruined castles boasting magnificent scenic views and wine!

The tour will take you to Lednice, the most frequented romantic Chateau in the Czech Republic. We will start with a tour of the beautiful interiors, displaying wonderful carved ceilings, and the second oldest greenhouse in Europe after that in London. After lunch on the castle premises you will have an opportunity to walk in the French formal garden or a small section of the landscaped park that occupies almost 300 km² and includes two magnificent palaces, numerous "smaller" romantic buildings, such as the oldest observation tower in the Czech Republic built in 1801 and called the Minaret, artificial river arms and islands. On the way back to Brno we will admire the skyline of Mikulov, a beautiful historic town on the border with Austria and one of the centers of winemaking.

Address: 691 44 Lednice na Moravě, Czech Republic

Date, time, and meeting information for your booked event can be found at the registration desk.

GENERAL INFORMATION

DESTINATION

The conference venue is the University of Defence Club, located at Šumavská 4, 662 10 Brno, Czech Republic. It serves as a central hub for students, faculty, and military professionals affiliated with the University of Defence. The club offers a welcoming environment for both formal and informal gatherings, fostering a sense of community among its members. It provides space for academic discussions, professional networking, and social events, contributing to the overall academic and personal growth of its members. The facility is equipped with various amenities, including meeting rooms, event spaces, and recreational areas, making it a versatile venue for a wide range of activities. The University of Defence Club is integral to campus life, supporting the institution's mission to develop highly skilled and well-rounded military professionals.



Preregistration required. It is necessary to bring your passport or ID.

DIRECTIONS

By train

The best option how to reach Brno by train is from Prague or Vienna cities. Brno Railway station is in a very convenient location as it takes barely 10 minutes on foot to reach the city center. You can purchase train tickets online [here](#) and [here](#).

By plane

There is only limited destination from which Brno can be reached by direct flight. More information is available on Brno Airport [website](#). The best option how to reach Brno using plane is flying to Prague or Vienna and then using local public transport.

By bus

There is a choice of international bus lines connecting Brno with other European cities. Please find the routes and buy the tickets on the Regio Jet [website](#), Eurolines [website](#) and Flixbus [website](#).

By Taxi

Taxi services can be found near all transport junctions in Brno. You can call taxi from [here](#). Most of the taxi cabs accept cash and credit cards. Always ask for a printed receipt at the end of the trip.

Public Transportation

You can reach your hotel and Conference Venue by public transport. All routes and timetables can simply be found [here](#). Please keep in mind that you might need to change a bus or trolley at some point.

GUIDELINES FOR PRESENTERS

Each oral presentation has been allocated 10 minutes, with an additional 3 minutes for discussion and about 2 minutes for change over. Please, keep to the scheduled times so that the conference can run smoothly and participants can attend the talks they wish to see. Session chairs have been asked to keep exactly to the timetable.

Presenters with oral presentations should upload their presentation onto the presentation computers before their session using a USB memory device. These computers are running the Windows operating system. Please, keep in mind to bring your presentation files as either PowerPoint or PDF.

Presenters are strongly discouraged from using their own computers and should do so in exceptional cases only. Changing computers takes time away from other presenters and valuable discussions. In these special cases, presenters should verify that their presentation works by connecting their device to the projector in the room where they will present and test their presentation out before beginning their session.

Session Chairs have the responsibility to introduce the speakers, to lead the discussions, and to ensure that the session schedule is observed.

Presenters with poster presentations should put their presentation onto the presentation desk. The poster must contain: paper title, authors' names including affiliations, paper content. Font size must be in reasonable values; the posters could be read from the distance.

Poster Format: the presentation for poster sessions must be prepared following the "Poster Presentation.com" (1000 mm X 1000 mm). The minimum size of the poster is A1 format (841 x 594 mm). Orientation -- portrait.

REGISTRATION DESK

Wednesday – **11th September: 08:30 – 16:00**

Thursday – **12th September: 08:30 – 09:00**

Friday – **13th September: 08:30 – 09:00**

CERTIFICATE OF ATTENDANCE

If you would like to receive a certificate of attendance, you can request one at the registration desk.

COMPETITION OF THE BEST STUDENT WORK

Every conference participant will be able to cast their preference for the best student poster through the “Survey” at the CNDCGS 2024 conference. The winners of the best poster presentation will be announced and awarded during the conference Closing Session. Best Students Oral Presentation will be chosen and awarded by the members of the Scientific Committee of the Conference.

COMPETITION OF THE BEST CNDCGS 2024 PAPER AND POSTER AWARD

The Best Paper and Best Poster will be chosen and awarded by the members of the Scientific Committee of the Conference.

LANGUAGE

The official language of CNDCGS 2024 is English.

SECURITY

Your name badge must be worn at all times otherwise you will not be allowed entry to the main conference sessions.

POSTER SESSIONS

11.09. WEDNESDAY, 15:30-16:30, POSTER SESSIONS

TOPIC	DEFENCE TECHNOLOGIES AND AVIATION
CHAIR(S)	Dr. Patrik NOVOSAD, Ph.D., University of Defence, Brno, Czech Republic
15:30-16:30	<p>Firing Data Accuracy and its Impact on the Effectiveness of Artillery Fire</p> <ul style="list-style-type: none"> Miroslav MUŠINKA, Michal VAJDA, Milan TURAJ, Richard LIŠKA <p>Department of military tactics and operational art, Armed forces academy of general Milan Rastislav Štefánik, Demänová 393, 031 01 Liptovský Mikuláš, Slovakia</p> <p>Possibilities of using Unmanned Aerial Vehicle in Geospatial Support in the Czech Army</p> <ul style="list-style-type: none"> Jaromir CAPEK, Vladimír KOVARIK, Martin HUBACEK <p>Department of Military Geography and Meteorology, Faculty of Military Technology, University of Defence, Kounicova 65, 662 10 Brno, Czech Republic</p> <ul style="list-style-type: none"> Jan SOBOTKA <p>Department of Engineer Technology, Faculty of Military Technology, University of Defence, Kounicova 65, 662 10 Brno, Czech Republic</p> <p>Specific Activities in the Electromagnetic Spectrum and their Relevance in Future Military Operations</p> <ul style="list-style-type: none"> Petr HLAVIZNA, Radovan VAŠÍČEK <p>University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic</p> <p>Practical Evaluation of Instruments for Determining the Exact Position During Artillery Operations of the Czech Artillery</p> <ul style="list-style-type: none"> Jan DRÁBEK, Ladislav POTUŽÁK, Tomáš HAVLÍK, Viktor VITOUK, Jiří NOVÁK <p>University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic</p> <p>Additive Manufacturing Technologies in Military Logistics</p> <ul style="list-style-type: none"> Aidas VASILIS VASILIAUSKAS, Augustas REGESAS <p>General Jonas Žemaitis Military Academy of Lithuania, Silo g. 5A, LT-10322 Vilnius</p> <p>Evaluating the Performance and Advantages of Electric and Internal Combustion Vehicles</p> <ul style="list-style-type: none"> Donatas KRIAUCIŪNAS, Aurimas GIRŽADAS, Mantas KAIRYS <p>General Jonas Žemaitis Military Academy of Lithuania, Silo g. 5A, LT-10322 Vilnius</p> <p>Analysis of the Dependability of Position Lights of Aircraft</p> <ul style="list-style-type: none"> Marcel ŠTĚPÁNEK, Kamila HASILOVÁ, Milan PŠENIČKA <p>University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic</p> <p>Contemporary Decision Support Tools in Decision-Making Related to the Development of "Green Airports"</p> <ul style="list-style-type: none"> József TÓTH, László KAVAS <p>National University of Public Service, H- 5008 Szolnok, Hungary</p>

**11.09. WEDNESDAY, 15:30-16:30,
POSTER SESSIONS**

TOPICS	CYBER THREATS AND SECURITY ISSUES // DEMOCRACY, CONTEMPORARY THREATS AND WARFARE
CHAIR(S)	Prof. Aidas VASILIS VASILIAUSKAS , General Jonas Žemaitis Military Academy of Lithuania
15:30-16:30	<p>Cyber Security and Business Continuity Management: Ensuring Resilience in a Digital World</p> <ul style="list-style-type: none"> • Katarína MÄKKÁ, AMBIS University, Lindnerova 1, 180 00 Prague, Czech Republic • Katarína KAMPOVÁ Faculty of Security Engineering, University of Žilina, 010 26 Žilina, Slovakia <p>Securing Data Transmission Over Networks in the Modern Digital Landscape</p> <ul style="list-style-type: none"> • Ibraim DIDMANIDZE, Mikheil DONADZE, Besik BERIDZE, Guram CHACHANIDZE, Zebur BERIDZE Batumi Shota Rustaveli State University, Batumi, 6010, Georgia <p>Analysis of Migration in the Czech Republic and Security Challenges in the Context of the Current Geopolitical Situation</p> <ul style="list-style-type: none"> • Josef ŠENK, Jana PUPÍKOVÁ, Eliška POLCAROVÁ AMBIS University, Department of Security and Law, Lindnerova 575/1, 180 00 Prague, Czech Republic <p>Risk Analysis of Strategic Commodities in Customs Procedures in Relation to Global Security Threats</p> <ul style="list-style-type: none"> • Jan MARKUP, Magdalena NAPLAVOVA, Petr ROZNAK AMBIS University, Lindnerova 575/1, 180 00 Prague, Czech Republic <p>Analysis of Students Results and Form of Physics Teaching at the Faculty of Military Technology of the University of Defence</p> <ul style="list-style-type: none"> • František VIŽĎA, Miroslav KOMÁREK Department of Mathematics and Physics, Faculty of Military Technology, University of Defence, Kounicova 65, 662 10, Brno, Czech Republic <p>Importance of Physics Entrance Test for Individual Mentoring</p> <ul style="list-style-type: none"> • František VIŽĎA, Karel ZUBÍK Department of Mathematics and Physics, Faculty of Military Technology, University of Defence, Kounicova 65, 662 10, Brno, Czech Republic <p>The Role of Artificial Intelligence in Military</p> <ul style="list-style-type: none"> • Vladimír VRÁB, Jan ZEZULA Department of Tactics, Faculty of Military Leadership, University of Defence, Kounicova 65, 66910 Brno, Czech Republic <p>Wars Shadows: Exploring Multifaceted Strategies in the Politics of Fear</p> <ul style="list-style-type: none"> • Olga VLASOVA King's College London

**11.09. WEDNESDAY, 15:30-16:30,
POSTER SESSIONS**

TOPIC	MULTI-CRITERIA DECISION-MAKING
CHAIR(S)	Prof. Svajone BEKESIENE , General Jonas Žemaitis Military Academy of Lithuania
15:30-16:30	<p>Multicriterial Analysis and Comparison of Air-to-Air Fighter Jets</p> <ul style="list-style-type: none"> • Ondrej MACH, Jiri ULVR, Pavlina RACKOVA University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic • Jan URBAN Czech Air Force, Prague, Czech Republic <p>Reliability Analysis of the GEOSL2000 Soil Passability Prediction Model</p> <ul style="list-style-type: none"> • Martin HUBACEK, Lucie ALMASIOVA, Jaromir CAPEK University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic <p>Information Warfare Model with Internal Conflict</p> <ul style="list-style-type: none"> • Igor SAMOILENKO, Nazar SALO Department of Operation Research, Faculty of Computer Science and Cybernetics, Taras Shevchenko National University of Kyiv, Kyiv, Ukraine; • Anatolii NIKITIN Department of Economic-Mathematical Modeling and Information Technologies, Faculty of Economics, The National University of Ostroh Academy, Ostroh, Ukraine; Department of Mathematics, Faculty of Natural Sciences, Jan Kochanowski University of Kielce, Kielce, Poland; • Tetiana SAMOILENKO Department of mathematical physics and differential equations, Faculty of physics and mathematics, The National Technical University of Ukraine Igor Sikorsky Kyiv Polytechnic Institute, Kyiv, Ukraine; • Ganna VEROVKINA Department of Mathematical Physics, Faculty of Mechanics and Mathematics, Taras Shevchenko National University of Kyiv, Volodymyrska St, 60, Kyiv, 01033, Ukraine • Bohdan KRASIUK Department of Economic-Mathematical Modeling and Information Technologies, Faculty of Economics, The National University of Ostroh Academy, Ostroh, Ukraine <p>The Gray Zone and Its Place in Security Environment</p> <ul style="list-style-type: none"> • Vladimír ANDRASSY, Martin ONDRUŠ Armed Forces Academy of general Milan Rastislav Štefánik, Slovakia <p>The Multi-Domain Approach to Military Operations and its Challenges to Intelligence and Intelligence, Surveillance, Reconnaissance</p> <ul style="list-style-type: none"> • Ondrej KACMARIK, Radovan VASICEK University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic

Analysis of Trends in Defense Financing in the Member States of the North Atlantic Alliance

- Roman **HORÁK**

University of Defence, Faculty of Military Leadership, Kounicova 65, 662 10 Brno, Czech Republic

**11.09. WEDNESDAY, 15:30-16:30,
POSTER SESSIONS**

TOPIC	MILITARY OPERATION IN MULTIDIMENSIONAL ENVIRONMENT
CHAIR(S)	Assoc. Prof. Jiří NEUBAUER , University of Defence, Kounicova 65, 66210 Brno Czech Republic
15:30-16:30	<p>Stress Coping Strategies of the Young Soldiers in the Context of the Deteriorating Security Situation</p> <ul style="list-style-type: none"> • Eva ŠTĚPÁNKOVÁ, Kristýna BINKOVÁ, Miroslav MAŠLEJ University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic <p>Other Central Administrative Authorities in the Crisis Management System</p> <ul style="list-style-type: none"> • Katerina GOGHOVA, Alena OULEHLOVA Faculty of Military Leadership, University of Defence, Kounicova 65, 66210 Brno Czech Republic <p>The Complexity of Military Force Readiness to Respond to Changes in the Electromagnetic Environment</p> <ul style="list-style-type: none"> • Petr HLAVIZNA, Matyáš FALTA AMBIS University, Lindnerova 1, 180 00 Prague, Czech Republic; Faculty of Security Engineering, University of Žilina, 010 26 Žilina, Slovakia

**12.09. THURSDAY, 09:00-12:00,
POSTER SESSIONS**

TOPIC	SUSTAINABLE DEFENCE SOLUTIONS
CHAIR(S)	Assoc. Prof. Kamila HASILOVÁ , University of Defence, Kounicova 65, 66210 Brno Czech Republic
09:00-12:00	<p>The Impact of the Deteriorated Political and Security Situation on the Financial Stability of Arms Companies Operating in an Oligopolistic Market Environment</p> <ul style="list-style-type: none"> • Jiří NOVÁK, Ladislav POTUŽÁK, Martin BLAHA, Vlastimil ŠLOUF, Jan DRÁBEK University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic <p>Design of Web GIS Application for Planning of Military River Crossing</p> <ul style="list-style-type: none"> • Filip DOHNAL, Šimon STRAKA University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic

- David **DUCHAN**
Brno University of Technology, 602 00 Brno

Enhancing Military Employment Appeal for Professional Personnel: A Case Study of the Lithuanian National Defence Volunteer Forces

- Olga **NAVICKIENĖ**
General Jonas Zemaitis Military Academy of Lithuania, Silo 5a, 10322 Vilnius, Lithuania

Drone Swarming and its Use in Minefield Laying Using Mathematical Methods

- Michal **BILINA**, Kamila **HASILOVÁ**, Tibor **PALASIEWICZ**
University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic

Virtual War Medicine – A Key Element of Modern Warfare

- Jan **KOLOUCH**,
AMBIS, Lindnerova 575/1, Prague, Czech Republic
- Lukas **MIKLAS**
Czech Technical University in Prague, Faculty of Biomedical Engineering, Nam. Sitna 3105, Kladno, Czech Republic

Exploring the Defence Industry's Macroeconomic and Microeconomic Perspectives under New Security Conditions

- Miroslav **KRČ**, Vendula **HYNKOVÁ**
University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic

**12.09. THURSDAY, 09:00-12:00,
POSTER SESSIONS**

TOPIC	EDUCATION AND PHYSICAL TRAINING FOR NATIONAL DEFENCE
CHAIR(S)	Assoc. Prof. Marek SEDLAČÍK , University of Defence, Kounicova 65, 66210 Brno Czech Republic
09:00-12:00	<p>A New Approach of Teaching the Special Relativity for Military Students Educating Cadets Competencies using special relativity</p> <ul style="list-style-type: none"> • Patrik NOVOSAD Department of Mathematics and Physics, University of Defence, Address: Kounicova 65, 662 10 Brno, Czech Republic <p>Teaching Defence Management to Senior-Level Professional Military Education at the Baltic Defence College</p> <ul style="list-style-type: none"> • Çlirim TOCI Baltic Defence College, Riia 12, 51010 Tartu, Estonia <p>Military Versus Civilian University Online Education</p> <ul style="list-style-type: none"> • Dana ŘÍHOVÁ, Marek SEDLAČÍK, Kamila HASILOVÁ, Department of Quantitative Methods, University of Defence, Kounicova 65, 66210 Brno, Czech Republic • Jakub ŠÁCHA, Tomáš KONDERLA

Department of Statistics and Operation Analysis, Mendel University, Zemědělská 1, 61300 Brno, Czech Republic

Differences in Second Language Learning Motivation

- Vladan **HOLCNER**, Jiri **NEUBAUER**, Jiri **DVORAK**, Jiri **VAPENIK**

University of Defence, Kounicova 65, 61200 Brno, Czech Republic

COVID-19 Restrictions' Effect on Physical Fitness: A Comparative Study of First-Year Students in Pre, During, and Post-Pandemic Eras

- Petr **KELLNER**, Viktor **NOVOTNÝ**, Petr **ZAHRADNÍČEK**

University of Defence – Centre of Physical Education and Sport, Brno, Czech Republic; University of Defence – Department of quantitative methods

- Jiří **NEUBAUER**

University of Defence – Department of quantitative methods; Masaryk University – Faculty of sport studies, Brno, Czech Republic

Possible Approaches to Increasing Fitness in the Military in the Context of the Current Level of Fitness in the Population

- Jan **FLORIAN**, Tomáš **NOVOHRADSKÝ**

University of Defence, Czech Republic, Centre for Physical Education and Sport, Kounicova 65, 662 10, Brno

Multicriteria Comparison and Evaluation of Vestibular Apparatus Training Methods for Pilots

- Ondrej **MACH**, Ladislav **GOGH**,

University of Defence, Faculty of Military Technology, Brno, Czech Republic; University of Defence, Physical Training and Sport Centre, Brno, Czech Republic;

- Josef **REPKA**

Czech Air Force, Prague, Czech Republic

Statistical Analysis of Youth Physical Fitness as an Important Factor for the Defence of the Czech Republic

- Veronika **LACINOVÁ**, Lucie **HAMPELOVÁ**, Marek **SEDLAČÍK**,

Dept. of Quantitative Methods, University of Defence, Kounicova 65, 66210 Brno Czech Republic;

- Petr **HANÁK**

Physical Training and Sport Centre, University of Defence, Kounicova 65, 66210 Brno Czech Republic

Analysis of Physical Performance of University of Defence Students Using Exploratory Factor Analysis

- Michal **POLÁCH**, Petr **KELLNER**, Jiří **SEKANINA**, Ondřej **JANÁK**,

Physical Training and Sports Centre, University of Defence, Brno, Czechia

- Jiří **NEUBAUER**,

Department of Quantitative Methods, University of Defence, Brno, Czechia

- Jiří **ZHÁNĚL**

Department of Sport Performance and Exercise Testing, Masaryk University, Brno, Czechia

Educating Soldiers' Competencies Through Battlefield Simulation Systems

- Svajonė **BEKEŠIENĖ**, Linas **VARŽINSKAS**

General Jonas Zemaitis Military Academy of Lithuania, Silo 5a, 10322 Vilnius, Lithuania

Enhancing Collective Military Training: Integrating the Laser Battlefield System of the Lithuanian Land Forces

- Svajonė **BEKEŠIENĖ**, Herkus **STANKEVIČIUS**

General Jonas Zemaitis Military Academy of Lithuania, Silo 5a, 10322 Vilnius, Lithuania

STEM Teaching in Contemporary Education

- Lela **TAVDGIRIDZE**, Nato **SHEROZIA**

Department of Pedagogical Sciences of Batumi Shota Rustaveli State University Batumi, Georgia

- Ibraim **DIDMANIDZE**, Ia **KHASAIA**

Center of languages and information technologies of Batumi Shota Rustaveli State University, Batumi, Georgia

- Dali **DOBORDGINIDZE**

Department of European Studies of Batumi Shota Rustaveli State University, Batumi, Georgia

Challenges of the Formation of the Military Professional at the University of Defence

- Kamila **HASILOVÁ**, Milan **VÁGNER**

Department of Quantitative Methods, University of Defence, Kounicova 65, 66210 Brno, Czech Republic

Current Trends in Research Methodology in Security and Defense Research

- Dalia **PRAKAPIENĖ**,

General Jonas Zemaitis Military Academy of Lithuania, Silo 5a, 10322 Vilnius, Lithuania

- Romas **PRAKAPAS**

Mykolas Romeris University, Vilnius, Lithuania

Citizens' Will to Resist: Attitudes of the Lithuanian Population

- Rolanda **KAZLAUSKAITĖ MARKELIENĖ**, Kamilė **NANYTĖ**

General Jonas Zemaitis Military Academy of Lithuania, Silo 5a, 10322 Vilnius, Lithuania

Security Strategies of the Visegrad Group Countries in the Current Security Environment

- Jiří **BARTA**, Jiří **KALENDA**, Pavel **KINCL**

University of Defence, Faculty of Military Leadership, Department of Military Theory, Kounicova 156/65, 662 10 Brno, Czech Republic

Approaches to the Population Sheltering in Selected Countries in Relation to Threats and the Security Environment

- Pavel **KINCL**, Jana **PUPÍKOVÁ**, Alena **OULEHLOVÁ**, Jiří **BARTA**

University of Defence, Faculty of Military Leadership, Department of Military Theory, Kounicova 156/65, 662 10 Brno, Czech Republic

The Need for the Establishment of Forensic Linguistics in Georgian Context

- Nelly **AKHVLEDIANI**

Department of European Studies, Faculty of Humanities of Batumi Shota Rustaveli State University, Batumi, Georgia

- Ibraim **DIDMANIDZE**, Nino **SAMNIDZE**, Zeinab **AKHVLEDIANI**,

Medea **DIASAMIDZE**

ORAL SESSIONS

13.09. FRIDAY, 11:00-13:00, ORAL SESSIONS, Main Conference Hall

TOPIC	DEFENCE TECHNOLOGIES AND AVIATION
CHAIR(S)	<p>Assoc. Prof. Kamila HASILOVÁ, Ph.D., Faculty of Military Leadership, University of Defence, CZECH REPUBLIC</p> <p>Assoc. Prof. Jiří NEUBAUER, Ph.D., Faculty of Military Leadership, University of Defence, CZECH REPUBLIC</p>
11:00-13:00	<p>Risk Assessment in the Selection of Parts for Additive Manufacturing</p> <ul style="list-style-type: none"> Adam ŠVÁSTA, Jan FURCH <p>University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic</p> <p>The Impact of Military Expenditures on the Government Debt of the Czech Republic and Lithuania</p> <ul style="list-style-type: none"> Petra ONDRACKOVA, Jakub ODEHNAL, Jiri NEUBAUER <p>University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic</p> <p>Analysis of Traffic Accidents with the Deployment of the Fire Rescue Service in the Regions of the Czech Republic</p> <ul style="list-style-type: none"> Petra KOLISKOVA, Jiri NEUBAUER <p>University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic</p> <p>Technologies in the Ukrainian Conflict: Reflection and Perspectives from Viewpoint of Combat Unit's Utilization</p> <ul style="list-style-type: none"> Pavel ZAHRADNICEK, Martin BOTIK <p>University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic</p> <p>Quantum Technology and its Role (Not Only) in the Strategic Concepts of Central European States</p> <ul style="list-style-type: none"> Oldřich KRULÍK, Irena TUŠER, Tomáš KOLOMAZNÍK <p>AMBIS University, Lindnerova 575/1, 180 00, Prague, Czech Republic</p> <p>Feasibility of Casualty Evacuation by Unmanned Systems</p> <ul style="list-style-type: none"> František GUBÁŠ <p>Armed Forces Academy of General M. R. Štefánik, Demänová 393, 031 01 Liptovský Mikuláš, Slovakia</p> <p>Segmentation of SAR Data for Military Purposes</p> <ul style="list-style-type: none"> Mária ŽDÍMALOVÁ, Nikita FEDORIN, Nicolas TÓTH, Kristína BORATKOVÁ <p>Department of Mathematics and Descriptive Geometry, Faculty of Civil Engineering, Slovak University of Technology, Address: Radlinského 11, 810 01, Bratislava, Slovakia</p>

Effects of Physical and Psychological Stress on Cognitive Performance in Czech Army Students

- Jana **HORÁKOVÁ**, Ivana **NEKVAPILOVÁ**

University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic

ORAL SESSIONS ROOM 1

**13.09. FRIDAY, 11:00-13:00,
ORAL SESSIONS, ROOM 1**

TOPIC	<p>MULTI-CRITERIA DECISION-MAKING SUSTAINABLE DEFENCE SOLUTIONS DEMOCRACY, CONTEMPORARY THREATS AND WARFARE DEFENCE TECHNOLOGIES AND AVIATION EDUCATION AND PHYSICAL TRAINING FOR NATIONAL DEFENCE</p>
CHAIR(S) ROOM 1	<p>Dr. Jan JEKL, Ph.D., Faculty of Military Technology, University of Defence, CZECH REPUBLIC</p> <p>Dr. Veronika LACINOVÁ, Ph.D., Faculty of Military Leadership, University of Defence, CZECH REPUBLIC</p>
	<p>Specific consequences of using WMD: Radioactive contamination of foodstuffs and its potential health effects</p> <ul style="list-style-type: none"> • Jozef SABOL, Lukáš HABICH <p>Police Academy of the Czech Republic in Prague, 143 00 Prague, Czech Republic</p> <p>Geographical Distribution Analysis of Field Hospitals Along the Frontline: 2SFCA Method-based Approach</p> <ul style="list-style-type: none"> • Jan JEKL, Jiří JÁNSKÝ <p>University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic</p> <p>Constructive Simulation Tools in the Armed Forces of the Slovak Republic</p> <ul style="list-style-type: none"> • Daniel BREZINA <p>Armed Forces Academy of Gen. M. R. Štefánik, Demänová 393, 031 01 Liptovský Mikuláš, Slovakia</p> <p>Contemporary Civil-Military Relations</p> <ul style="list-style-type: none"> • Ivan MAJCHÚT <p>Armed Forces Academy of Gen. M. R. Štefánik, Demänová 393, 031 01 Liptovský Mikuláš, Slovakia</p> <p>Teaching the Subject of Operations Research at Military Universities (not only) of NATO Countries</p> <ul style="list-style-type: none"> • Michal ŠMEREK, Milan VÁGNER <p>Department of Quantitative Methods University of Defence, Brno, Czech Republic</p> <p>Some problems with the CBRN risk quantification in terms of stochastic and deterministic effects taking into account the health impact of individual agents</p> <ul style="list-style-type: none"> • Jozef SABOL, Jan BAJURA, Jan NEJEDLÝ <p>Police Academy of the Czech Republic, Lhotecká 559/7, 143 01 Prague, Czech Republic</p>

ORAL SESSIONS ROOM 2

**13.09. FRIDAY, 11:00-13:00,
ORAL SESSIONS, ROOM 2**

TOPICS	EDUCATION AND PHYSICAL TRAINING FOR NATIONAL DEFENCE MILITARY OPERATION IN MULTIDIMENSIONAL ENVIRONMENT DEMOCRACY, CONTEMPORARY THREATS AND WARFARE MULTI-CRITERIA DECISION-MAKING
CHAIR(S) ROOM 2	Assoc. Prof. František VIŽĎA, Ph.D. , Faculty of Military Technology, University of Defence, CZECH REPUBLIC Dr. Lucie HAMPELOVÁ, Ph.D. , Faculty of Military Leadership, University of Defence, CZECH REPUBLIC
11:00-13:00	<p>Evaluation of Modern Approaches to Crisis Management</p> <ul style="list-style-type: none"> • Daniel BREZINA, Jaroslav KOMPAN Armed Forces Academy of Gen. M. R. Štefánik, Demánová 393, 031 01 Liptovský Mikuláš, Slovakia <p>The impact of the war conflicts on residential childcare: a survey into Czech children's homes</p> <ul style="list-style-type: none"> • Alois DANĚK AMBIS University, Lindnerova 575/1, 180 00 Prague, Czech Republic <p>Methodological Concepts of Applying AI into Military and Economic Capabilities Data Analysis</p> <ul style="list-style-type: none"> • Vadym PAKHOLCHUK, Kira HORIACHEVA Military Institute of Taras Shevchenko National University of Kyiv, Yulii Zdanovskoi St., 81, Kyiv, 03189 <p>Teaching in Software Applications: A Single Robust Built-In Command Versus Sequence of More Elementary Commands</p> <ul style="list-style-type: none"> • Vojtěch RŮŽIČKA, Jiří JÁNSKÝ, Jan JEKL University of Defence, Kounicova 65, 66210 Brno, Czech Republic <p>Temporal Discontinuity of Defence Investment and Implementation in the Bucharest Nine Countries</p> <ul style="list-style-type: none"> • Vojtěch MÜLLNER, Kamil NEČAS University of Defence, Brno, Kounicova 65, 612 00, Czech Republic <p>Preferred Leadership Styles: Mid-Career Professionals in the Czech Military</p> <ul style="list-style-type: none"> • Ivana MROZKOVÁ, Ivana NEKVAPILOVÁ University of Defence, Kounicova 65, 61200 Brno, Czech Republic

The Importance of Re-reading Solzhenitsyn and his “Gulag Archipelago”

- Roman **DONT**, Petr **KRAJÁČ**, Zdeněk **MIKULKA**, Tomáš **ŘEPA**
University of Defence, Kounicova 65, 66210 Brno Czech Republic

ORAL SESSIONS ROOM 3

**13.09. FRIDAY, 11:00-13:00,
ORAL SESSIONS, ROOM 3**

TOPIC	DEMOCRACY, CONTEMPORARY THREATS AND WARFARE
CHAIR(S) ROOM 3	<p>Dr. Pavlína RAČKOVÁ, Ph.D., Faculty of Military Technology, University of Defence, CZECH REPUBLIC</p> <p>Dr. Irena TUŠER, Ph.D., Faculty of Military Leadership, University of Defence, CZECH REPUBLIC</p>
11:00-13:00	<p>Application of AI in the Energy Sector of Ukraine in the Conditions of War</p> <ul style="list-style-type: none"> • Stanislav PETKO Kyiv National Economic University named after Vadym Hetman, Ukraine <p>Age Structure of the Population of the Czech Republic and its Development</p> <ul style="list-style-type: none"> • Milan PALÁT University of Defence, Kounicova 156/65, 662 10 Brno, Czech Republic <p>Strategic Communication's Role in Eliminating Disinformation's Impact in Times of Crisis</p> <ul style="list-style-type: none"> • Tomáš KOLOMAZNÍK AMBIS University, Lindnerova 575/1, 180 00 Prague, Czech Republic <p>The Positioning of Terrorism Issues in the Contemporary World and Its Perception from the Perspective of Czech Republic Citizens</p> <ul style="list-style-type: none"> • Vojtěch LOYKA, Pavel OTŘÍŠAL Department of Adapted Physical Activities, Faculty of Physical Culture, Palacký University Olomouc, třída Míru 117, 771 11 Olomouc, Czech Republic <p>Impact of the War in Ukraine on Global Environmental Security</p> <ul style="list-style-type: none"> • Olena SHEVCHENKO, Taras Shevchenko National University of Kyiv, Institute of International Relations, Kyiv, Ukraine • Anatolii SHEVCHENKO Taras Shevchenko National University of Kyiv, Military Institute, Kyiv, Ukraine

Analysis of the Possibilities of Developing the Resilience of Employees and Members of the Integrated Rescue System in the Czech Republic as Part of Lifelong Education

- Pavel **OTŘÍSAL**

Department of Adapted Physical Activities, Faculty of Physical Culture, Palacký University Olomouc, třída Míru 117, 771 11 Olomouc, Czech Republic

- Dana Rebeka **RALBOVSKÁ**

Department of Health Care and Population Protection, Faculty of Biomedical Engineering, Czech Technical University in Prague, nám. Sítná 3105, 272 01 Kladno 2, Czech Republic

ORAL SESSIONS ROOM 4

**13.09. FRIDAY, 11:00-13:00,
ORAL SESSIONS, ROOM 4**

TOPIC	DEMOCRACY, CONTEMPORARY THREATS AND WARFARE
CHAIR(S) ROOM 4	<p>Prof. Pavel OTŘÍSAL, Ph.D., Department of Adapted Physical Activities, Faculty of Physical Culture, Palacký University Olomouc, CZECH REPUBLIC</p> <p>Dr. Radovan POTŮČEK, Ph.D., Faculty of Military Technology, University of Defence, CZECH REPUBLIC</p>
11:00-13:00	<p>Forecasting demand and optimizing total costs in the transport network, Part 2 Case Study form Poland</p> <ul style="list-style-type: none"> • Jarosław ZIÓLKOWSKI, Volodymyr HUTSAYLYUK Military University of Technology, Gen. S. Kaliskiego 2 Street, 00-908 Warsaw • Svajonė BEKEŠIENĖ General Jonas Žemaitis Military Academy of Lithuania, Šilo Str. 5A, LT-10322 Vilnius, Lithuania <p>-----</p> <p>Strategic Forecasting for National Defense: Enhancing Decision-Making and Operational Efficiency</p> <ul style="list-style-type: none"> • Jarosław ZIÓLKOWSKI, Volodymyr HUTSAYLYUK Department, Faculty, Military University of Technology, Gen. S. Kaliskiego 2 Street, 00-908 Warsaw, Poland • Sarka HOSKOVA-MAYEROVA Faculty of Military Technology, University of Defence, Kounicova 65, 662 10 Brno, Czech Republic <p>-----</p> <p>Understanding and Awareness Among the Czech Public Regarding the Potential Deployment of Biological Weapons on their Territory</p> <ul style="list-style-type: none"> • Vojtěch LOYKA, Pavel OTŘÍSAL Department of Adapted Physical Activities, Faculty of Physical Culture, Palacký University Olomouc, třída Míru 117, 771 11 Olomouc, Czech Republic <p>Increasing the Protection of the Population in the Czech Republic in the Zone of Emergency Planning for Major Chemical Accidents</p>

- Otakar Jiri **MIKA**

Police Academy of the Czech Republic, Lhotecká 559/7, CZ-143 01 Prague, Czech Republic

- Pavel **OTŘÍŠAL**

Faculty of Physical Culture, Palacký University Olomouc, třída Míru 117, 771 11 Olomouc, Czech Republic

Improvement in the Field of CBRN Prevention, Preparedness and Protection in the Czech Republic

- Otakar Jiri **MIKA**

Police Academy of the Czech Republic, Lhotecká 559/7, CZ-143 01 Prague, Czech Republic; University of South Bohemia in České Budějovice, Faculty of Health and Social Sciences, J. Boreckého 1167/27, České Budějovice, Czech Republic;

- Pavel **OTŘÍŠAL**

Faculty of Physical Culture, Palacký University Olomouc, třída Míru 117, 771 11 Olomouc, Czech Republic

Gloves in the Pharmaceutical Industry and Selected Aspects of their Evaluation

- Pavel **OTŘÍŠAL**

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- Otakar Jiri **MIKA**

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- Radovan **KARKALIC**

Department of Military Chemical Engineering, Military Academy, Generala Pavla Jurisica Sturma 33, 11000 Belgrade, Serbia

Conceptual Mapping in the System of Population Protection Education

- Pavel **OTŘÍŠAL**,

Faculty of Physical Culture, Palacký University Olomouc, třída Míru 117, 771 11 Olomouc, Czech Republic

- Sarka **HOSKOVA-MAYEROVA**

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- Dana Rebeka **RALBOVSKÁ**

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PROGRAM SUMMARY

TOPICS

S01	DEFENCE TECHNOLOGIES AND AVIATION
S02	CYBER THREATS AND SECURITY ISSUES
S03	DEMOCRACY, CONTEMPORARY THREATS AND WARFARE
S04	MODERN TECHNOLOGIES AND SOCIAL SCIENCES
S05	MULTI-CRITERIA DECISION-MAKING
S06	SUSTAINABLE DEFENCE SOLUTIONS
S07	THE IMPACT OF NEW DEFENCE TECHNOLOGIES ON HUMAN
S08	EDUCATION AND PHYSICAL TRAINING FOR NATIONAL DEFENCE
S09	MILITARY OPERATION IN MULTIDIMENSIONAL ENVIRONMENT
S10	CHALANGES TO FACE NEW DEFENCE TECHNOLOGIES

WEDNESDAY, September 11, 2024

Plenary Sessions

Time	Session	SPEAKER
10:00-12:00	<i>THE CHALLENGES OF LEADERSHIP AS THE FOCUS OF MILITARY OPERATIONS SHIFTS TO HOMELAND DEFENSE AND COLLECTIVE DEFENSE</i>	
	SESSION 1	LT General Karel ŘEHKA, CZECH REPUBLIC
		MAJ General Remigijus BALTRĖNAS, LITHUANIA
		MAJ General Róbert BIELENÝ, CZECH REPUBLIC
		COL (ret.), Dr. Hab. Eugeniusz CIEŚLAK, ESTONIA
12:30-14:00	<i>NEW TECHNOLOGIES INSPIRED THE DEVELOPMENT OF DEFENCE INNOVATIONS</i>	
	SESSION 2	COL Assoc. Prof. Martin HUBÁČEK, Ph.D., CZECH REPUBLIC
		Dr. Fuad KHOSHNAW, UNITED KINGDOM
		Dr. Aidas Vasilis VASILIAUSKAS, LITHUANIA
		Artur PLOKŠTO, LITHUANIA

WEDNESDAY, September 11, 2024

Poster Sessions

Time	Session	Topics									
15:30-16:30	Session 3	S01	S02								
	Session 4			S03	S04						

THURSDAY, September 12, 2024

Poster Sessions

Time	Session	Topics									
15:30-16:30	Session 5					S05	S06	S07	S08	S09	

FRIDAY, September 13, 2024

Plenary Session

Time	Session	Speaker
09:00-10:00	<i>STRENGTHENING SECURITY AND RESILIENCE: THE ROLE OF EDUCATION AND TRAINING IN ADDRESSING EMERGING CHALLENGES</i>	
	Session 6	Dr. Rasa SMALIUKIENĖ, LITHUANIA
		Dr. Svajonė BEKEŠIENĖ, LITHUANIA
		MAJ Rosita KANAPECKAITĖ, LITHUANIA
		Dr. Marek SEDLAČÍK, CZECH REPUBLIC
		Mgr. Jiří VÁPENÍK, CZECH REPUBLIC

