

IN CONTEMPORARY GEOPOLITICAL SITUATION **3rd INTERNATIONAL CONFERENCE CHALLENGES TO NATIONAL DEFENCE IN CONTEMPORARY GEOPOLITICAL SITUATION** 

> 15 – 16 September, 2022 Vilnius, Lithuania



# PROGRAM CNDCGS`2022

Prof. Svajonė BEKEŠIENĖ (Conference General Chair)

Prof. Rasa SMALIUKIENĖ (Conference General Co-Chair) Assoc. Prof. Aušrius JUOZAPAVIČIUS (Conference General Co-Chair)

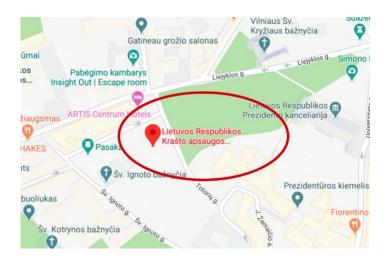
Assoc. Prof. Dalia PRAKAPIENĖ (Conference Secretary)

### **CONFERENCE VENUE**

The Conference will take place in the Ministry of National Defence of the Republic of Lithuania, ORŠA hall on 15-16 September 2022.



Location: Totorių St. 25, LT-01121 Vilnius, Lithuania.



## ORGANIZERS



Ministry of National Defence

Republic of Lithuania



GENERAL JONAS ŽEMAITIS

MILITARY ACADEMY OF LITHUANIA



University of Defence Brno University of Technology



National Defence Foundation



NATO Energy Security Centre of Excellence Lithuania



Lithuanian Riflemen's Union

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



## CHALLENGES TO NATIONAL DEFENCE IN CONTEMPORARY GEOPOLITICAL SITUATION CNDCGS<sup>2</sup>022

### PROGRAM

3rd INTERNATIONAL SCIENTIFIC CONFERENCE

15-16 September, 2022 Vilnius, Lithuania

### CONFERENCE SCIENTIFIC COMMITTEE

#### **CHAIRMAN**

Prof. Svajonė BEKEŠIENĖ, Military Academy of Lithuania

#### SCIENTIFIC SECRETARY

Prof. Šárka HOŠKOVÁ-MAYEROVÁ, University of Defence, Brno, Czech Republic

#### **MEMBERS**

Assoc. Prof. Paul BERG, U.S. Army Command and General Staff College, Kansas State University, (USA) 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) Prof. Volodymyr Hutsaylyuk, Military University of Technology (POLAND) Prof. Šárka Hošková-Mayerová, University of Defence (CZECH REPUBLIC) Assoc. Prof. Cristina Flaut, Ovidius University (ROMANIA) Prof. Jan Furch, University of Defence (CZECH REPUBLIC) Prof. Aušrius Juozapavičius, Military Academy of Lithuania (LITHUANIA) Prof. Gerry Larson, Swedish Defence University (SWEDEN) Prof. Fabrizio Maturo, University of Campania (ITALY) Assoc. Prof. Sabine Mengelberg, Netherlands Defence Academy (HOLLAND) Prof. Miroslaw Minkina, University of Natural Sciences and Humanities (POLAND) LTC Ing. Vlastimil Neumann, Ph.D. University of Defence (CZECH REPUBLIC) Dr. Soili Paananen, Finnish National Defence University (FINLAND) Assoc. Prof. Rolanda Kazlauskaite-Markelienė, Military Academy of Lithuania (LITHUANIA) Col. Dr. R. Kostrow, Military Institute of Armament Technology (POLAND) Prof. Rasa Smaliukienė, Military Academy of Lithuania (LITHUANIA) Prof. Lucjan Śnieżek, Military University of Technology (POLAND) Prof. Ing. Pavel Otrisal, Palacký University Olomouc (CZECH REPUBLIC) Dr. Irena Tušer, AMBIS College, (CZECH REPUBLIC) Assoc. Prof. Alena Vagaská, Prešov Technical University of Košice (SLOVAK REPUBLIC) Prof. Ing. Zdeněk Vintr, CSc. University of Defence (CZECH REPUBLIC) Col. Assoc. Prof. Dimitar Yankov Dimitrov, Ph.D. Rakovski National Defence College (BULGARIA)

### **CONFERENCE CHAIRS**

#### **ORGANIZERS**

#### Prof. Svajonė BEKEŠIENĖ

Conference General Chair General Jonas Žemaitis Military Academy of Lithuania

#### Prof. Rasa SMALIUKIENĖ

Conference General Co-Chair General Jonas Žemaitis Military Academy of Lithuania

### Assoc. Prof. Aušrius JUOZAPAVIČIUS

Conference General Co-Chair General Jonas Žemaitis Military Academy of Lithuania

#### Assoc. Prof. Dalia PRAKAPIENĖ

Conference Secretary General Jonas Žemaitis Military Academy of Lithuania

#### **MEMBERS:**

Ltn. Col. Linas Idzelis (Lithuanian Armed Forces)
Maj. Gintautas Razma (Military Academy of Lithuania)
Maj. Rosita Kanapeckaitė (Military Academy of Lithuania)
Assoc. Prof. Gintaras Labutis (Military Academy of Lithuania)
Assoc. Prof. Gitana Dudzevičiūtė (Military Academy of Lithuania)
Assoc. Prof. Ramutė Vaičaitienė (Military Academy of Lithuania)
Assoc. Prof. Vladas Tumalavičius (Military Academy of Lithuania)
Elena Tamulevičienė (Military Academy of Lithuania)
Tomas Greičiūnas (Military Academy of Lithuania)

## SCHEDULE OF THE CONFERENCE

The second international scientific conference CNDCGS 2022 will be held on 15-16 September 2022 at the Ministry of National Defence of the Republic of Lithuania, Orša Hall, Totorių St. 25, Vilnius.

As a web conference, the CNDCGS 2022 will be open to virtual attendance on a secure, accessible, and user-friendly Zoom platform for live streaming.

### THURSDAY, September 15, 2022

08:50-10:00	REGISTRATION
10:00-10:30	Opening Ceremony
10:30-11:30	Plenary Session "THE ROLE OF ENERGY IN NATIONAL SECURITY AND DEFENCE FRAMEWORK"
11:30-12:00	Discussions
12:00-12:30	Coffee Break
12:30-14:00	Plenary Session "EMERGING SECURITY CHALLANGES AND RESILIENCE"
14:00-14:15	Discussions
14:15-14:30	Coffee Break
14:30-16:00	POSTER SESSIONS
18:00-21:00	Social Events

#### FRIDAY, September 16, 2022

09:00-10:00	Registration
10:00-11:00	Plenary Session "NEW TECHNOLOGIES INSPIRED THE DEVELOPMENT OF DEFENCE INNOVATIONS"
11:00-11:30	Discussions
11:30-12:00	Coffee Break
12:00-12:30	CNDCGS 2022 conference closing session
15:00-20:00	Social Events

### CNDCGS 2022 PROGRAM OVERVIEW

### **THURSDAY, September 15, 2022**

The Ministry of National Defence of the Republic of Lithuania, ORŠA hall, Totorių St. 25, LT-01121 Vilnius, Lithuania

08:50-10:00 REGISTRATION

10:00-10:30 Opening Ceremony. Welcoming remarks

Brig Gen **Almantas LEIKA**, Commandant, Military Academy of Lithuania

COL doc. Ing. **Jan BOŘIL**, Ph.D. Vice-Rector for Research and Expert Activities, University of Defence, Brno, Czech Republic

**COL** (**ret**) **Vaidotas MALINIONIS**, Managing Director, National Defence Foundation organisation, Lithuania.

**COL (ret) Gediminas GAINA**, former General Director of the State Security Department, Lithuania

### 10:30-11:30 PLENARY SESSION

**"THE ROLE OF ENERGY IN NATIONAL SECURITY AND DEFENCE FRAMEWORK"** 

Moderator **Assoc. Prof. dr. Gintaras LABUTIS**, General Jonas Žemaitis Military Academy of Lithuania.

#### ENERGY SECURITY OF CROATIA - INSTRUMENT FOR THE EUROPEAN ENERGY SECURITY - CHALLENGES AND OUTCOMES

**Plenary Speaker**: Assist. Prof. Gordan **AKRAP**, Hybrid Warfare Research Institute, CROATIA.

#### DECARBONIZING DEFENCE: HOW SYNTHETIC FUELS COULD MAKE THE MILITARY GREENER

**Plenary Speaker**: Mr. Lukas **TRAKIMAVIČIUS**, NATO Energy Security Centre of Excellence, LITHUANIA

THE ANALYSIS OF MACROTRENDS IN CRITICAL ENERGY INFRASTRUCTURE AND THE ROLE OF SECURITY AND DEFENCE INSTITUTIONS

**Plenary Speaker**: Dr. Alexandru **GEORGESCU**, National Institute for Research and Development in Informatics ICI, ROMANIA.

#### THE ANALYSIS OF OUTCOMES AND CHALLENGES OF CORE21B TABLETOP EXERCISE ON RESILIENCE OF THE BALTIC POWER SYSTEM

**Plenary Speaker**: Dr. Vytis **KOPUSTINSKAS**, Joint Research Centre, ITALY.

#### 11:30-12:00 Discussions

12:00-12:30 Coffee Break

#### 12:30-14:00 PLENARY SESSION

# **"EMERGING SECURITY CHALLANGES AND RESILIENCE".**

Moderator **Prof. dr. Rasa SMALIUKIENĖ**, General Jonas Žemaitis Military Academy of Lithuania.

#### MEDIA ECOLOGY IN WARTIME: CASE OF UKRAINE

**Plenary Speaker**: PhD (Politics), Assoc. Prof. Olena **SHEVCHENKO**,

Taras Shevchenko National University of Kyiv, UKRAINE.

#### **RESPONDING TO EVOLVING MILITARY THREAT. DEVELOPMENT OF POLISH ARMED FORCES AFTER** 2014

**Plenary Speaker:** Ph.D. Dr Hab., Eugeniusz **CIEŚLAK**, Course Director, Senior Leaders' Course, Higher Command Studies Course, Baltic Defence College Tartu, ESTONIA.

# COGNITIVE WARFARE FROM A SCIENCE & TECHNOLOGY PERSPECTIVE

**Plenary Speaker:** Dr. Paolo **PROIETTI**, Italian NATO STB and HFM Panel Member, NATO Studies Coordinator at Leonardo, ITALY.

#### GEOPOLITICAL SITUATION IN RUSSIA – RECENT CHANGES AND A ROLE OF TECHNOLOGIES IN CENTRALIZING AND STRENGTHENING THE GOVERNING OF THE MILITARY AND THE STATE

**Plenary Speaker**: Senior Advisor Daivis **PETRAITIS**, International Relations and Operations Group, Ministry of National Defence of the Republic of Lithuania

#### **COLLATERAL DAMAGE IN THE INFOSPHERE**

**Plenary Speaker**: Valerijus **ŠERELIS** Lt. Col. (Ret.), Lithuanian Armed Forces Training and Doctrine Command, Institute of Military Affairs Adviser, LITHUANIA.

# CURRENT SITUATION IN EUROPE FROM THE US AND NATO PERSPECTIVE

**Plenary Speaker:** Stephen N. **OLEJASZ**, Lt. Col. US Army (Ret.), Independent Security Policy Analyst, Executive Vice President American Association of the Friends of Kosciuszko at West Point, Inc., USA

14:00-14:15 Discussions

14:15-14:30 Coffee Break

#### 14:30-16:00 POSTER SESSIONS

18:00-21:00 Social Events.

### FRIDAY, September 16, 2022

The Ministry of National Defence of the Republic of Lithuania, ORŠA hall, Totorių St. 25, LT-01121 Vilnius, Lithuania

#### **09:00-10:00** Registration

#### 10:00-11:00 PLENARY SESSION

#### **"NEW TECHNOLOGIES INSPIRED THE DEVELOPMENT OF DEFENCE INNOVATIONS"**

Moderator **Prof. dr. Aušrius JUOZAPAVIČIUS**, General Jonas Žemaitis Military Academy of Lithuania.

#### LESSONS LEARNED FROM EMPLOYMENT OF DRONES IN RECENT CONFLICTS. ARE UNMANNED AIRCRAFT SYSTEMS ABLE TO IMPACT MEANINGFULLY ON COURSE OF WARS?

**Plenary Speaker**: Col. Assoc. Prof. Tadeusz **ZIELIŃSKI**, PhD (Dr Hab.), Vice-Rector for Scientific Affairs at War Studies University, Warsaw, POLAND.

#### ARMAMENTS IN THE WAR IN UKRAINE 2022: NOVELTIES, ANTIQUES AND IMPROVISATIONS

**Plenary Speaker**: Senior Adviser Artur **PLOKŠTO**, the Defence Materiel Agency under the Ministry of National Defence of the Republic of Lithuania, LITHUANIA.

# CURRENT CONSIDERATIONS FOR AIR AND MISSILE DEFENSE

**Plenary Speaker**: LtCol Paweł **MRÓZ**, PhD, POLAF Adjunct, Director of Air Force and Air Defence Department War Studies University, Warsaw, POLAND.

# THE EUROPEAN DEFENCE AGENCY AND ITS ROLE IN SUPPORT OF LITHUANIAN DEFENCE INDUSTRY

**Plenary Speaker**: Maj. Donatas **PALAVENIS**, Junior researcher in the Baltic Institute of Advanced Technology (BPTI), LITHUANIA.

#### THE IMPACT OF THE APPLICATION OF STANDARDIZED MANAGEMENT SYSTEMS ON THE PERFORMANCE OF CLUSTERS OR ASSOCIATIONS FOCUSED ON SECURITY AND DEFENCE.

**Plenary Speaker**: Assoc. Prof. dr. Gintaras **LABUTIS**, Military Academy of Lithuania, LITHUANIA.

11:00-11:30	Disquesions
11:00-11:50	Discussions

11:30-12:00 Coffee Break

12:00-12:30 Closing Session

15:00-20:00 Social Events

### **15 SEPTEMBER, 2022**

### **POSTER SESSIONS**

#### 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 DEFENCE TECHNOLOGIES: EDUCATION AND TRAINING
- **S09** ENVIRONMENTAL ISSUES AND MODERN TECHNOLOGIES
- S10 CHALLENGES TO FACE NEW DEFENCE TECHNOLOGIES

TOPIC	CHAIR
S01	<b>Prof. Sarka HOSKOVA-MAYEROVA,</b> University of Defence, Brno, Czech Republic
S02	<b>Prof.</b> Aušrius <b>JUOZAPAVIČIUS</b> , <i>General Jonas</i> Žemaitis <i>Military Academy of Lithuania</i>
S03	<b>Prof. Rasa SMALIUKIENĖ,</b> <i>General Jonas</i> Žemaitis <i>Military Academy of Lithuania</i>
S04	<b>Dr. Vladas TUMALAVIČIUS,</b> General Jonas Žemaitis Military Academy of Lithuania
S05	<b>Prof. Svajonė BEKEŠIENĖ</b> , <i>General Jonas</i> Žemaitis Military Academy of Lithuania
S06	Assoc. Prof. Gitana DUDZEVIČIŪTĖ, General Jonas Žemaitis Military Academy of Lithuania
S07	Assoc. Prof. Ramutė VAIČAITIENĖ, General Jonas Žemaitis Military Academy of Lithuania
S08	<b>Maj. Rosita KANAPECKAITĖ,</b> General Jonas Žemaitis Military Academy of Lithuania
S09	Maj. Ph.D. Klara CIBULOVA, University of Defence, Brno, Czech Republic
S10	Assoc. Prof. Dalia PRAKAPIENĖ, General Jonas Žemaitis Military Academy of Lithuania

### **15 SEPTEMBER, 2022**

### **POSTER PRESENTATIONS**

#### TOPIC: S01, S02, S03, S04, S05, S06, S07, S08, S09, S10

#### DEFENCE TECHNOLOGIES AND AVIATION

## Assessment of the Possibility of Using Different Kinds of Civil Aircraft by Terrorists

• Adam RADOMYSKI, Daniel MICHALSKI, Tomasz KULIK, Faculty of Aviation Safety, Polish Air Force University, Deblin, Poland

#### The Concept and Preliminary Design of a New Drone Destined for Military Rescue Missions

• Krzysztof PUCHAŁA, Elżbieta SZYMCZYK, Volodymyr HUTSAYLYUK, Faculty of Mechanical Engineering, Military University of Technology, Warsaw, Poland;

• Grzegorz MONETA, Łukasiewicz Research Network – Institute of Aviation, Warsaw, Poland

#### Investigation of Corrosion Resistance of Two-Layer Protective Coatings

• Oleg TOTOSKO, Petro STUKHLYAK, Mytnyk MYKOLA, Roman ZOLOTIY, Danilo STUKHLYAK, Ternopil Ivan Puluj National Technical University, Ternopil, Ukraine

• Nikolay DOLGOV, G. S. Pisarenko Institute for Problems of Strength, Nat. Ac. Sci. of Ukraine, Kyiv, Ukraine

## Modelling of Accidental Impacts of Hazardous Chemical Substances in the Czech Republic

• Jiri Mika OTAKAR, Faculty of Security Management, Police Academy of the Czech Republic in Prague, Praha 4, Czech Republic; Faculty of Health and Social Studies, University of South Bohemia in České Budějovice, Czech Republic;

• Pavel OTRISAL, Faculty of Physical Culture, Palacký University Olomouc, Olomouc, Czech Republic

#### Application of Methods of Preparation of Plasma-Chemical Nano Coatings Designated to Hydrophobic and Oleo Phobic Correction of Surface Working of Textile Materials for Filtration Protective Suit

• Vladimír OBŠEL, DEZA, Brno, Czech Republic; Faculty of Physical Culture, Palacký University Olomouc, Olomouc, Czech Republic;

• Pavel OTRISAL, Faculty of Physical Culture, Palacký University Olomouc, Olomouc, Czech Republic

## All-Season Tires and their Inappropriate Selection Due to the Current Economic Shortage of Raw Materials

• Vlastimil KONEČNÝ, University of Defense, Brno, Czech Republic

#### Some Current Approaches to the CAF Chemical Corps Potential Employment in Operations for Elimination of Weapons of Mass Destruction

• Pavel OTRISAL, Faculty of Physical Culture, Palacký University Olomouc, Olomouc, Czech Republic;

• Jiri Mika OTAKAR, Faculty of Security Management, Police Academy of the Czech Republic in Prague, Praha 4, Czech Republic

#### **Diffuse Reflectance of Thin Films with Defects**

• František VIŽĎA, Department of Mathematics and Physics, Faculty of Military Technology, University of Defence, Brno, Czech Republic

## Al2O3/Ni/Ti Composites Enhanced by Intermetallic Phases for Military Applications

• Marcin WACHOWSKI, Lucjan ŚNIEŻEK, Volodymyr HUTSAYLYUK, Military University of Technology in Warsaw, Poland

• Justyna ZYGMUNTOWICZ, Katarzyna KONOPKA, Warsaw University of Technology, Warsaw, Poland

## Laser Shock Wave Surface Processing Possibilities of Structural Materials

• Vitalii MOCHARSKYI, Bogdan KOVALYUK, Oksana SITKAR Department of Physics, Ternopil Ivan Puluj National Technical University, Ternopil, Ukraine

#### CYBER THREATS AND SECURITY ISSUES

#### Approaches to the Conduct of Electronic Warfare in Support of Joint Operations

• Petr HLAVIZNA, Radovan VASICEK, Alena OULEHLOVA, University of Defence, Brno, Czech Republic

#### Analysis of Potential Cyber Threats for Autonomous Vehicles from Military Perspective

• Gražvydas GRICIUS, Aušrius JUOZAPAVIČIUS, General Jonas Žemaitis Military Academy of Lithuania

#### Network Attack Detection using Machine Learning Methods

• Nataliya ZAGORODNA, Mariia STADNYK, Borys LYPA, Mykola GAVRYLOV, Ruslan KOZAK, Department of Cybersecurity, Faculty of Computer Information Systems and Software Engineering, Department of Cybersecurity, Ternopil Ivan Puluj National Technical University, Ternopil, Ukraine

#### DEMOCRACY, CONTEMPORARY THREATS AND WARFARE

#### Geoinformation Portal as a Component Unified Geoinformation Environment

• Nataliia LYTVYNENKO, Oleksiy FEDCHENKO, Olexander KORINETC, Military Institute of Taras Shevchenko National University of Kyiv, Ukraine

## Mapping Growth of the Russian Domestic Propaganda Apparatus on Telegram

• Petro VAVRYK, Department of Systems Analysis and Decision Making Theory, Taras Shevchenko National University of Kyiv, Ukraine

#### Media Ecology in Wartime: Case of Ukraine

• Olena SHEVCHENKO, Taras Shevchenko National University of Kyiv, Institute of International Relations, Kyiv, Ukraine; Kira HORIACHEVA, Taras Shevchenko National University of Kyiv, Military Institute, Kyiv, Ukraine; Anatoliy YAKOVETS, Taras Shevchenko National University of Kyiv, Institute of International Relations, Kyiv, Ukraine

#### Protection of Cultural Heritage in an Armed Conflict. What Poland Can Learn from Ukraine?

• Grzegorz ROSŁAN, Faculty of Management, Rzeszow University of Technology, Rzeszów, Poland

# Susceptibility to Disinformation in Poland. The Case of Instrumentalised Migration from Belarus in 2021.

• Justyna LIPIŃSKA, War Studies University, Warsaw, Poland

# Protection of Cultural Heritage in an Armed Conflict. What Poland can Learn from Ukraine?

• Grzegorz ROSŁAN, Rzeszow University of Technology, Rzeszów, Poland

#### Controlling in the MOD in the Context of Long-Term Stable Financing of the Czech Armed Forces and its Modernization

• Roman HORÁK, University of Defense, Faculty of Military leadership, Brno, Czech Republic

#### Systemic Corruption as a Threat to National Security - Protection of Civil Servants Who Report Breaches of European Union law in the Czech Republic

• Aleš PACHMANN, AMBIS Vysoká škola, Praha, Czech Republic

#### Security and Protection in Terms of the Assumptions of the Coalition Agreement for the Election Period 2021-2025

Pavel OTRISAL, Bretislav STEPANEK, Faculty of Physical Culture, Palacký University Olomouc, Olomouc, Czech Republic
Jiri Mika OTAKAR, Faculty of Security Management, Police Academy of the Czech Republic in Prague, Praha 4, Czech Republic

#### Social Integration of Millennials Generation in the Lithuanian Armed Forces - What Challenges are Waiting for Organization to Retain Individuals in the Military Service?

• Paulius BALSYS, Institute of sociology at the Lithuanian centre for social sciences, Vilnius, Lithuania

# The Russian World as an Ideology for Destroying Ukrainian National Identity

• Andrii KRYSKOV, Department of Ukrainian studies and Philosophy, Ternopil Ivan Puluj National Technical University, Ukraine

#### **Responding to Evolving Military Threat. Development of Polish Armed** Forces After 2014

Eugeniusz CIEŚLAK,

# Military Organization's Role and Place in the Recent Russia (Russian Militocracy)

• Daivis PETRAITIS, General Jonas Žemaitis Military Academy of Lithuania

#### MULTI-CRITERIA DECISION-MAKING

#### **Optimization of Arms Race Under Conflict and Uncertainty**

• Oleksandr NAKONECHNYI, Olena KAPUSTIAN, Sofiia MYRVODA, Iuliia SHEVCHUK, Taras Shevchenko National University of Kyiv, Kyiv, Ukraine

#### A Practical Assessment of The Potential Public Health Consequences of Russian Military Aggression in Ukraine

- Hanna Balaka, Olha FOKAF, Kateryna KUZMINOVA, Kyiv School of Economics, Kyiv, Ukraine
- Sofiia MYRVODA, Iuliia SHEVCHUK, Taras Shevchenko National University of Kyiv, Kyiv, Ukraine

#### Peculiarities of Construction and Analysis of a Complex Epidemiological Susceptible-Infected-Removed Model

- 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;
- Oleg KRAVETS, Management department, faculty of Economics, Dmytro Motornyi Tavria State Agrotechnological University, Bohdan Khmelnitskii, Melitopol, Ukraine.

#### Time Pressure Influence on Criminal Decision-Making

Violeta CIMALANSKAITĖ-KAZLAUSKIENĖ, Vilnius university, Vilnius, Lithuania

#### Theory of Chaos in Transport

- Josef JELÍNEK, University of Defense, Brno, Czech Republic
- Alena BŘEZNICKÁ, Alexander Dubcek University of Trencin, Slovak Republic

Petr STODOLA, Jiří STODOLA, University of Defense, Brno, Czech Republic

SUSTAINABLE DEFENCE SOLUTIONS

#### Military Human Potential in the Context of Defence - Growth Relationship: Evidence from the Baltic States

• Gitana DUDZEVIČIŪTĖ, General Jonas Žemaitis Military Academy of Lithuania

#### A Devastating Tornado in Moravia 2021

- Jiri Mika OTAKAR, Faculty of Security Management, Police Academy of the Czech Republic in Prague, Praha 4, Czech Republic; Faculty of Health and Social Studies, University of South Bohemia in České Budějovice, Czech Republic;
- Pavel OTRISAL, Faculty of Physical Culture, Palacký University Olomouc, Olomouc, Czech Republic

# Post-War Socialization of the Economy: Ukrainian and European Security

• Anastasiia SIMAKHOVA, National Aviation University, Kyiv, Ukraine

#### Sustainable Logistics Coordination by using the National Defence Resource Management Information System

• Matas JUREVIČIUS, Svajone BEKESIENE General Jonas Žemaitis Military Academy of Lithuania

# Analysis of Manifestations of Aggression in the Intervention of the Emergency Medical Service

- Pavel OTRISAL, Faculty of Physical Culture, Palacký University Olomouc, Olomouc, Czech Republic;
- Dana Rebeka RALBOVSKÁ, Faculty of Biomedical Engineering, The Czech Technical University in Prague, Czech Republic

#### Aspects of Economic Warfare – Causes and Consequences

- Miroslav KRČ, University of Defence, Brno, Czech Republic
- Vendula HYNKOVÁ, Ambis College, Brno, Czech Republic

#### The Motivation to Increasing National Security by Strengthening Energy Independence from Unfriendly Countries

• Darius LELIŪNAS, Svajone BEKESIENE

General Jonas Žemaitis Military Academy of Lithuania

#### **Risks of the Effects of Restrictive Measures on the Democratic Foundations of the State**

- Irena TUŠER, Ambis University, Department of Security and Law, Praha, Czech Republic
- Radovan POTŮČEK, Šárka HOŠKOVÁ-MAYEROVÁ, University of Defence Brno, Department of Mathematics and Physics, Brno, Czech Republic

#### Analysis of the use of Post-Trauma Care and Crisis Intervention Among the Emergency Services with Regard to Job-Related Psychological Strain

- Dana Rebeka RALBOVSKÁ, Faculty of Biomedical Engineering, The Czech Technical University in Prague, Czech Republic;
- Pavel OTŘÍSAL, Faculty of Physical Culture, Palacký University Olomouc, Olomouc, Czech Republic

#### The Impact of Disciplinary Action for Crime Prevention

• Tobias PURKIN, Swedish Armed Forces, Sweden

#### The Motivation of Generation Z to Serve in the Lithuanian Army

• Stasys SUŽIEDĖLIS, Svajone BEKESIENE General Jonas Žemaitis Military Academy of Lithuania

#### **Energy Efficiency in Military Camps**

• Petr DVOŘÁK,

University of Defence, Faculty of Military Technologies, Brno, Czech Republic

#### Role of the Lithuanian Army in Controlling the Illegal Migration Crisis

• Miglė PETREVIČIŪTĖ, Svajone BEKESIENE

General Jonas Žemaitis Military Academy of Lithuania

## Methodological Approaches to Assessing the Quality of an Organisation's Performance

- Dalia PRAKAPIENĖ, General Jonas Žemaitis Military Academy of Lithuania;
- Romas PRAKAPAS, Mykolas Romeris University, Lithuania

#### **Employment of Lithuanian Military Resources to Manage Emergency** Situations

• Romas BURNECKIS, Svajone BEKESIENE General Jonas Žemaitis Military Academy of Lithuania

#### DEFENCE TECHNOLOGIES EDUCATION AND RAINING

#### Success/Leaving Rate of the Military Students

• Milan VÁGNER, Kamila HASILOVÁ, Department of Quantitative Methods, University of Defence, Brno, Czech Republic

#### The Problem of Artificial Neural Network Retraining and its Use to Improve the Quality of Teaching

• Ibraim DIDMANIDZE, Grigol KAKHIANI, A. PAGAVA, Batumi Shota Rustaveli State University, Batumi, Georgia

# Impact of Training on Reservist Intention to Serve in the Lithuanian Army

- Svajone BEKESIENE, Rasa SMALIUKIENĖ, Olga NAVICKIENĖ, Ieva MEIDUTĖ-KAVALIAUSKIENĖ, Ramutė VAIČAITIENĖ, General Jonas Žemaitis Military Academy of Lithuania
- Rosita KANAPECKAITĖ, Vilnius University, Institute of Psychology, Vilnius, Lithuania

### NOTES