

***“VASIL LEVSKI” NATIONAL MILITARY UNIVERSITY,
“ARTILLERY, AIR DEFENSE AND CIS” FACULTY, SHUMEN, BULGARIA
MILITARY TECHNICAL ACADEMY “FERDINAND I”, ROMANIA
“HENRY COANDA” AIR FORCE ACADEMY, BRASOV, ROMANIA
WAR STUDIES UNIVERSITY, WARSAW, POLAND
MILITARY UNIVERSITY OF TECHNOLOGY, WARSAW, POLAND
„SPIRU HARET“ UNIVERSITY BUCHAREST, ROMANIA,
POLISH AIR FORCE UNIVERSITY, DEMBLIN, POLAND
REZEKNE ACADEMY OF TECHNOLOGIES, REZEKNE, REPUBLIC OF LATVIA***

ARTILLERY, AD AND CIS FACULTY



DEFENSE TECHNOLOGY FORUM 2024

AGENDA

DEFENSE TECHNOLOGY FORUM 2024 SHUMEN

November 21–22, 2024

Shumen, Bulgaria

ORGANIZING COMMITTEE

GENERAL CO-CHAIRS

- Brig. Gen. Eng. Ivan MALAMOV, Rector and Commandant of “Vasil Levski” National Military University, Bulgaria
- Brig. Gen. Prof. Eng. Iulian-Constantin VIZITIU, PhD, Rector and Commandant of Military Technical Academy “Ferdinand I”, Romania
- Brig. Gen. Assoc. Prof. Marius ȘERBESZKI, PhD, Commandant - Rector of “Henry Coanda” Air Force Academy, Romania
- Brig. Gen. Prof. DSc. Przemysław WACHULAK, Rector and Commandant of Military University of Technology, Poland
- Gen. (ret.) Mieczysław GOCUŁ, PhD, Rector of War Studies University, Warsaw
- Prof. Gheorghe DUDA, PhD, Erasmus+ Institutional Coordinator - “Spiru Haret” University, Romania
- Brig. Gen. Eng. Pilot Krzysztof CUR, PhD, Commandant Rector of Polish Air Force University, Demblin, Poland

CONFERENCE CO-CHAIRS

- Col. Assoc. Prof. Eng. Stancho STANCHEV, PhD, “Vasil Levski” NMU, Bulgaria
- Col. (AF) Prof. Eng. Cristian-Emil MOLDOVEANU, PhD, Military Technical Academy “Ferdinand I”, Bucharest, Romania
- Col. Assoc. Prof. Eng. Laurian GHERMAN, PhD, “Henry Coanda” Air Force Academy, Brasov, Romania
- LTC Assoc. Prof. Eng. B. BIERNACIK, PhD, War Studies University, Poland
- Brig. Gen. DSc. Eng. Przemysław WACHULAK, PhD, Military University of Technology, Poland
- Col. Eng. Jarosław GAŚSIOR, PhD, Military University of Technology, Poland
- Prof. Gheorghe DUDA, PhD, “Spiru Haret” University, Romania
- Lt Col. Daniel MICHALSKI, PhD, of the Polish Air Force University, Demblin, Poland

PROGRAM COMMITTEE

CHAIR

- Col. Assoc. Prof. Eng. V. GANEV, PhD, Vice Dean of Artillery, Air Defense and CIS Faculty, “Vasil Levski” National Military University

CO-CHAIRS

- Col. Prof. Eng. Pamfil SOMOIAG, PhD, MTA “Ferdinand I”, Romania
- LTC Assoc. Prof. Eng. P. OSTOLSKI, PhD, WSU, Poland

- LTC Assis. Prof. Eng. B. BIERNACIK, PhD, WSU, Poland
- LTC Cristian ENE, “Henry Coanda” Air Force Academy, Romania
- DSc, Eng. prof. Zbigniew LECIEJEWSKI, PhD, MUT, Poland
- Prof. Grigore ALBEANU, PhD, Dean of the Faculty of Engineering and Computer Science, “Spiru Haret“ University, Romania

Defense Technology Forum Shumen 24 Thursday 21st of November 2024	
08:30 - 10:00	Registration
10:00 – 10:15	Opening Ceremony / Municipal youth center - town of Shumen
10:15 – 11:00	Plenary Session 1: Lt.Col. Bartosz BIERNACIK, PhD Eng. War Studies University, Warsaw, Poland <i>Conclusions from the millennium flood regarding supporting the activities of crisis management teams in Poland in 2024. Case study</i>
11:00 – 11:45	Plenary Session 2: Maj. Assoc. Prof. Eng. Florina BUCUR¹ Marius Marius-Valeriu Cîrmaci-Matei², Adrian-Nicolae Rotariu³, Liviu-Cristian Matache⁴, Laviniu Haller⁵, Savu-Eugen Dima⁶, Răzvan Mircioagă⁷ ^{1,2,3,4,5,7} Military Technical Academy „Ferdinand I” ⁶ S.C. Tactical Life S.R.L. <i>Experimental and numerical study of high velocity impacts on ballistic protection configurations</i>
11:45 – 12:30	Plenary Session 3: LTC Eng. Razvan MIRCIOAGA¹PhD Tudor PRISECARU², Adrian-Nicolae ROTARIU¹, Julien le Clanche³, Baptiste Reynier³, Michel Arrigoni³ ¹ Military Technical Academy „Ferdinand I”, Romania, ² National University of Science and Technology Politehnica Bucharest, Romania, ³ ENSTA Bretagne, Brest, France <i>Experimental study on the dynamic behavior of low-sensitivity propellant grains with the split hopkinson pressure bar</i>
	Company exhibition - "Cloud hosting services from Max1 Cloud - Shumen"
12:30 – 14:00	Lunch Break – pre ordered only
14:00 – 15:00	International Scientific Conference – Workgroup Sessions: • Defense and Security - Section work • Weapons, Technologies, Logistics - Section work • Communication and Computer Technologies - Section work • Cybersecurity - Company exhibition- "Practical cyber attacks demonstration from Max1 Cloud" • Geodesy - Section work • Social studies - Section work
15:00 – 15:15	Coffee Break
15:15 – 17:00	Section work
19:00	Official Dinner / Borovets Restaurant
Friday 22st of November	
09:00 – 10:30	Section work • Defense and Security

	<ul style="list-style-type: none"> • Weapons, Technologies, Logistics • Communication and Computer Technologies • Cybersecurity • Geodesy • Social studies
10:30 – 10:45	Coffee Break
10:45 – 13:00	Section work <ul style="list-style-type: none"> • Defense and Security • Weapons, Technologies, Logistics • Communication and Computer Technologies • Cybersecurity • Geodesy • Social studies
13:00 – 14:00	Lunch Break
14:00	Closing Ceremony

**WORKGROUP SESSION
SECTION
*DEFENSE AND SECURITY***

Chairman: Col. Assoc. Prof. Stoyan N. Chanev, PhD

Location: Room 08401, Block 08, I floor

21 November 2024

14.00-14.30

Maxim M. Alashki - Ministry of Defence, Armaments Policy Directorate

1. ANALYSIS OF THE PRACTICAL BENEFITS OF THE SCIENTIFIC ACTIVITY OF THE DEFENSE INSTITUTE “PROFESSOR TSVETAN LAZAROV” FOR THE DEVELOPMENT OF THE DEFENSE CAPABILITIES OF THE BULGARIAN ARMY
2. PLANS AND PROGRAMS FOR THE MODERNIZATION OF THE ARMED FORCES OF THE REPUBLIC OF BULGARIA

14.30-14.35

Question and discussion

14.35-15.35

Veliko P. Petrov - Faculty of Artillery, Air Defense and Communication and Information Systems, National Military University, Shumen, Bulgaria,

1. CONDUCTING CYBER INFLUENCE OPERATIONS
2. STRATEGIC COMMUNICATIONS AND INFORMATION-PSYCHOLOGICAL IMPACT
3. BASIC REQUIREMENTS FOR JET ARTILLERY IN MODERN OPERATIONS
4. PSYCHOLOGICAL OPERATIONS AS AN INTEGRAL PART OF STRATEGIC COMMUNICATIONS IN THE ARMIES OF NATO MEMBER COUNTRIES
5. WAYS TO INCREASE THE EFFICIENCY OF COUNTERBATTERY FIGHTING IN MODERN CONDITIONS

15.35-15.40

Question and discussion

17.40-15.55

Ivaylo Zh. Bozov, Stamen I. Antonov - Faculty of Artillery, Air Defense and Communication and Information Systems, National Military University, Shumen, Bulgaria

DEVELOPMENT OF TACTICS AS PART OF THE ART OF WAR IN THE 21ST CENTURY

15.55-16.00

Question and discussion

16.00-16.15

Ivan K.Vladov - Faculty of Artillery, Air Defense and Communication and Information Systems, Shumen, National Military University, Bulgaria

COMMUNICATION SYSTEM FOR THE COORDINATION OF ACTIONS BETWEEN CIVILIANS AND SECURITY OFFICIALS IN THE PROTECTION OF THE POPULATION AND DISASTER MANAGEMENT

- 16.15-16.20 *Question and discussion*
- 16.20-16.35 ***Zhivko St. Yordanov - CMDR (OF-4 NAVY)***
RESULTS OF AN EXPERIMENT CONDUCTED THROUGH COMPUTER SIMULATIONS OF THE EXEC-UTIVE AND DISTRIBUTION ACTIVITY OF THE ARMED FORCES
- 16.35-16.40 *Question and discussion*
- 16.20-16.35 ***Hristo A. Desev - Faculty of Artillery, Air Defense and Communication and Information Systems, National Military University, Shumen, Bulgaria***
ASPECTS OF INFORMATION SECURITY IN TERRITORIAL ADMINISTRATIVE STRUCTURES AND LOCAL GOVERNMENT BODIES
- 16.35-16.40 *Question and discussion*
- 16.40-16.55 ***Kaloyan A. Iliev Ivan K. Vladov - Faculty of Artillery, Air Defense and Communication and Information Systems, National Military University, Shumen, Bulgaria***
MILITARY PATRIOTIC EDUCATION A GUARANTEE OF NATIONAL SECURITY
- 16.55-16.50 *Question and discussion*
- 16.55-17.00 ***Ivaylo Zh. Bozov - Faculty of Artillery, Air Defense and Communication and Information Systems, National Military University, Shumen, Bulgaria***
ORDER OF PERFORMANCE TASKS BY UNMANNED AIRCRAFT SYSTEMS TO ARTILLERY FORMATIONS
- 17.00-17.05 *Question and discussion*

22 November 2024

- 09.00-09.15 ***Zarko I. Zravkov, Ivo G. Radulov, Sevdalin H. Stoykov - DARI, Rakovski National Defence College, Sofia, Bulgaria***
ONE APPROACH FOR THE OBSERVATION FILTERING IN THE LESSONS LEARN PROCESS
- 09.15-09.20 *Question and discussion*
- 09.20-09.35 ***Matey K. Kirov - Faculty of Artillery, Air Defense and Communication and Information Systems, National Military University, Shumen, Bulgaria***
MULTI-DOMAIN OPERATIONS
- 09.35-09.40 *Question and discussion*
- 09.40-09.55 ***Nikolay I. Padarev - "V. Levski"NMU***
1. OPPORTUNITIES TO USE SOFTWARE TOOLS AND INFORMATION

SYNCHRONIZATION IN THE NUCLEAR, CHEMICAL AND
BIOLOGICAL ENVIRONMENT ASSESSMENT IN SECURITY AND
DEFENSE

2. RADON INHALATION RISK ASSESSMENT

09.55-10.00 *Question and discussion*

10.00-10.15 ***Daniel Michalski - Polish Air Force University***
NEW ANTI-DRONE SYSTEM OF THE POLISH ARMED FORCES - IN-
FIELD RESEARCH

10.15-10.20 *Question and discussion*

WORKGROUP SESSION SECTION

WEAPONS, TECHNOLOGIES, LOGISTICS

Chairman: Col. Eng. Assoc. Prof Conuy G. Conev, Ph.D.

Location: Room 08106, Block 8, floor I

21 November 2024

- 14.00-14.20 ***Miroslav S. Dimitrov, Conyu G. Conev - AAD and CIS Faculty, National Military University "Vasil Levski", Artillery, Shumen, Bulgaria***
COMPARATIVE ANALYSIS OF THE EFFECTIVENESS OF INDIVIDUAL BALLISTIC PROTECTION MEANS USED IN THE RUSSO-UKRAINIAN WAR
- 14.20-14.25 *Question and discussion*
- 14.25-14.30 ***Nayden Naydenov – 34200 military formation***
SABERS AND MACHINE GUNS IN COMBAT IN THE 7TH PRES LAV INFANTRY REGIMENT (1916-1918)
- 14.30-14.35 *Question and discussion*
- 14.35-14.55 ***Георги И. Джурков - National Military University "Vasil Levski", Veliko Tarnovo, Faculty "Artilleryq AD and CIS", Shumen, Bulgaria***
РАЗВИТИЕ НА СТРАТЕГИЧЕСКИЯ КОМПАС НА ЕВРОПЕЙСКИЯ СЪЮЗ
- 14.55-15.00 *Question and discussion*
- 15.15-16.00 ***Danko D. Farazov - Rakovski National Defence College, Sofia, Bulgaria (d.farazov@rndc.bg)***
 1. NEED FOR ESTABLISHMENT OF HEADQUARTERS OF MULTINATIONAL DIVISION "EAST" IN THE REPUBLIC OF BULGARIA
 2. THE NEED TO TRANSITION AND DEVELOP THE ALLIANCE TO MULTI-DOMAIN OPERATIONS
 3. FORCE PROTECTION – A KEY MOMENT IN CONTEMPORARY OPERATIONS
- 16.00-16.05 *Question and discussion*
- 16.05-16.25 ***Iva B. Takova - Engineering logistics, Konstantin Preslavsky University of Shumen, Shumen, Bulgaria***
PLACE OF SUPPLY IN THE LOGISTICS SYSTEM
- 16.25-16.30 *Question and discussion*
- 16.30-16.55 ***Andrei I Bogdanov Krasimir G. Kalev - Konstantin Preslavski University Of Shumen, Shumen, Bulgaria***

USING MULTI-VALUE LOGIC FOR LOGISTICS PROCESS
MANAGEMENT

- 16.55-17.00 *Question and discussion*
17.00-17.25 **Rosen N. Lazarov - National Military University "V. Levski",
Faculty of "Artillery, Air Defense and CSI", Shumen, Bulgaria**
RESULTS OF AN EXPERIMENTAL STUDY OF THE CHANGE IN
GROUPING ACCURACY OF SHOTS FIRED WITH 7.62X39 MM
AMMUNITION WITH RADIAL CUTS ON THE BULLET'S OGIVE
- 17.25-17.30 *Question and discussion*
17.30-17.55 **Miroslav S. Dimitrov, Conyu G. Conev - AAD and CIS Faculty,
National Military University "Vasil Levski", Artillery, Shumen,
Bulgaria**
IMPROVING OF THE PERSONAL BALLISTIC PROTECTION THROUGH
THE USE OF MULTI-LAYERED ARMOR
- 17.55-18.00 *Question and discussion*

22 November 2024

- 09.00-09.20 **Andrada L. Cirneanu¹⁾, Alin C. Sava¹⁾, Cristian E. Moldoveanu¹⁾,
Marius V. Cirmaci-Matei¹⁾, Pamfil Somoia¹⁾, Linko Nikolov²⁾,
Krasimir Slavyanov²⁾ - ¹⁾Faculty of Integrated Armament Systems,
Military Engineering and Mechatronics, Military Technical
Academy "Ferdinand I", 050141 Bucharest, Romania, 2) Faculty
of Artillery, Air Defense and Communication and Information
Systems, "Vasil Levski" National Military University, 1 Karel
Shkorpil str. 9700, Shumen, Bulgaria,**
CNN ARCHITECTURE FOR DETECTION OF AREAS OF INTEREST IN
UAV IMAGERY. A COMPARATIVE ANALYSIS OF AUTOMATED
TECHNIQUE
- 09.20-09.25 *Question and discussion*
09.25-09.45 **Enache Alexandru-Adrian¹ and Rotariu Adrian-Nicolae¹ -
¹Military Technical Academy, Bucharest, Romania**
NUMERICAL STUDY ON THE INITIAL FLYING DIRECTIONS OF THE
STEEL BALLS ARRANGED IN A PLANAR DOUBLE LAYER FOR A
SMALL SIZE EXPLOSIVE CHARGE
- 09.45-09.50 *Question and discussion*
09.50-09.55 **Florin-Marian Dîrloman*, Traian Rotariu*, Gabriela Toader*,
Aurel Diacon*, Ștefan Curte* - *Military Technical Academy
"Ferdinand I" 39-49 Av. George Cosbuc, Bucharest, Romania**
DEVELOPMENT OF ENERGETIC MATERIALS BASED ON GLYCIDYL
AZIDE POLYMER
- 09.55-10.00 *Question and discussion*
10.00-10.20 **Engineer Constantin Mateescu, Liviu-Cristian Matache, Adrian
Rotariu, Diana Dumitraș, Ioana Păcurar, Alexandra Pîrvoi,**

***Pamfil Şomoiaş - Doctoral School, Military Technical Academy
Ferdinand I, Bucharest, Romania***

DRONE-MOUNTED MUNITIONS SYSTEMS USED IN URBAN
OPERATIONS

10.20-10.25 *Question and discussion*

10.25 – 10.45 ***Ioana-Doriana Păcurar¹, Liviu – Cristian Matache, Dana-Andreea-
Alexandra Pîrvoi, Daniela Pintilie, Alin C. Sava - 1 Faculty of
Integrated Armament Systems, Military Engineering and
Mechatronics, Military Technical Academy “Ferdinand I”,
Bucharest, Romania***

STUDY ON THE FORMATION OF EXPLOSIVE FORMED PROJECTILES
(EFP)

10.45-10.50 *Question and discussion*

10.50– 11.10 ***Diana C. Dumitraş, Liviu C. Matache, Ioana D. Păcuraru,
Constantin Mateescu, Cristian E. Moldovean u- Research and
Innovation Center for Naval Forces Constanta, Romania, Military
Engineering and Technology Research Agency, Military Technical
Academy „Ferdinand I”, Faculty of Integrated Systems of
Armaments, Engineering and Mechatronics, Military Technical,
Bucharest, Romania***

THEORETICAL STUDY OF THE USAGE OF NON-METALLIC
MATERIALS FOR NAVAL WAREFARE SYSTEMS

11.10-11.20 *Question and discussion*

11.20-12.10 ***Łukasz Patrejko, Krzysztof Patrejko, Anna Borucka, Piotr Bawoł,
Grzegorz Sobiecki - Doctoral School, Military University of
Technology, Warsaw, Poland, Faculty of Security, Logistics and
Management, Military University of Technology, Warsaw, Poland***

UNMANNED TRANSPORT SYSTEMS IN THE MILITARY
ENVIRONMENT

12.30-12.40 *Question and discussion*

12.10-12.30 ***Blagovest I. Bankov - Department of “Armament and Technology
for Design”, National Military University “Vasil Levski”, Shumen,
Bulgaria***

STAGES AND METHODS FOR DATA PROCESSING IN THE REVERSE
ENGINEERING STRATEGY

12.30-12.40 *Question and discussion*

12.15-12.30 ***Krasimir P. Koynakov - Logistics and technologies department,
Vasil Levski National Military University, Veliko Tarnovo,
Bulgaria***

1. RESEARCH OF ORGANISM ENERGY EXPENDITURE WITH THE
PARTICIPATION OF MILITARY AND NON-MILITARY
PERSONNEL IN LIQUIDATION CONSEQUENCES OF DISASTERS
2. POSSIBILITIES FOR MAKING A FIELD RATION OF THE

LYOPHILIZATION PRINCIPLE IN LIQUIDATION OF THE
CONSEQUENCES OF DISASTERS

12.30-12.40 *Question and discussion*

10.45-11.00 ***Pavlin Glushkov- National Military University, V. Tarnovo,
Bulgaria***

1. RESEARCH ON PRE-STOCKING FOOD AND WATER FOR A
DISASTER POPULATION
2. *SURVEYING THE PREFERENCES OF AN EMERGENCY
POPULATION FOR EMERGENCY FOOD RATIO*

12.30-12.40 *Question and discussion*

WORKGROUP SESSION SECTION

COMMUNICATION AND COMPUTER TECHNOLOGIES

Chairman: LtCol. Assoc. Prof. Krasimir Ognyanov Slavyanov, PhD

Location: Room 25206, Blok 25, floor I

21 November 2024

- 14.00-14.20 ***Vanyo V. Valchanov-***
RESEARCH ON THE POSSIBILITIES FOR APPLYING THE PARETO PRINCIPLE IN MANUAL TESTING FOR THE EVALUATION OF WEB-BASED SOFTWARE
- 14.20-14.25 *Question and discussion*
- 14.25-14.40 ***Stela Mincheva Veselka Stoqnova- Technikal University of Sofia, “Artillery, Air defense and CIS” Faculty, “Vasil Levski” National Military University, Shumen***
VISUAL IDENTITY OF THE OPTOELECTRONIC DEVICES
- 14.40-14.45 *Question and discussion*
- 14.45-15.05 ***Kaloyan A. IlievAlexandra K. Atanasova - Faculty of Artillery, Air Defense and Communication and Information Systems, National Military University, Shumen, Bulgaria***
ARTIFICIAL INTELLIGENCE IN MILITARY EDUCATION
- 15.05-15.10 *Question and discussion*
- 15.10-15.30 ***Krasimir Ognqnov Slavyanov Dobromir Plamenov Kalinov - National Military University Vasil Levski” Artillery, Air defence and Communication information systems” – Shumen***
COMPARATIVE ANALYSIS OF SYSTEMS AND TECHNOLOGIES FOR CREATING INTERACTIVE SMART HOME PLATFORMS
- 15.30-15.35 *Question and discussion*
- 15.35-15.55 ***Georgi A. Kozarev, Stanimir H. Parvanov - Faculty of Artillery, Air Defense and Communication and Information Systems, National Military University, Shumen, Bulgaria***
RESEARCH OPPORTUNITIES FOR USING STEGANOGRAPHIC METHODS IN THE FIELD OF DEFENSE
- 15.55-16.00 *Question and discussion*
- 16.00-16.20 ***Stanimir H. Parvanov, Deyan N. Dimitrov - Faculty of Artillery, Air Defense and Communication and Information Systems, National Military University, Shumen, Bulgaria***
A STUDY OF UNMANNED AERIAL VEHICLES IN ROLE AS REPEATERS IN ADAPTIVE COMMUNICATION NETWORK INTENDED

FOR HARD-TO-REACH AREAS

16.20-16.40

Vladislava S. Georgieva, Nikola P. Petrov, Matey K. Kirov - Communication Networks and Systems Department, Artillery, Air Defense Communication and Information Systems Faculty, National Military University „V. Levski”, Shumen, Bulgaria

FLIGHT STABILITY METHODS OF UNMANNED AIRCRAFT

16.40-16.45

Question and discussion

16.45-17.05

Todor G. Peshev Matey K. Kirov - Associated Professor at the Department of Air Defense, Artillery, Air Defense and CIS Faculty at the Vasil Levski National Military University

SPACE PROCESSING SYSTEMS AND THEIR CHARACTERISTICS

17.05-17.10

Question and discussion

17.10-17.30

Teodora S. Savova - UNIBIT, Sofia, Bulgaria

INTERNET AS A NEW CHANEL FOR COMMUNICATION

11.00-11.05

Question and discussion

16.00-16.30

Dilyan I. Dimitrov, Linko G. Nikolov, Krasimir O. Slavyanov - National Military University Vasil Levski” Artillery, Air defence and Communication information systems” – Shumen

ERASMUS+ KA02 PROJECT DIMAS – CURRENT RESULTS AND ANALYSES.

16.30-16.40

Question and discussion

16.00-16.30

Dilyan I. Dimitrov, Linko G. Nikolov, Krasimir O. Slavyanov - National Military University Vasil Levski” Artillery, Air defence and Communication information systems” – Shumen

ERASMUS+ KA02 PROJECT DIMAS – RELEVANT MATH CONCEPTS FOR DEFENSE AND SECURITY EDUCATION

16.30-16.40

Question and discussion

16.40-17.00

Olimpia Sobczyk, Aleksandra Piękoś - Faculty of Security, Logistics and Management, Military University of Technology, Warsaw, Poland

IT SUPPORT FOR THE UNIFORM DISTRIBUTION PROCESS IN THE POLISH ARMED FORCES

17.00-17.05

Question and discussion

17.05-17.25

Vladislav M. Genoff - Department "Computer Systems and Technologies", “Artillery, Air defense and CIS” Faculty, “Vasil Levski” National Military University, Shumen, Shumen, Bulgaria

MODERN TECHNOLOGIES WITH ARTIFICIAL INTELLIGENCE FOR UNMANNED AERIAL VEHICLE MANAGEMENT

17.25-17.45

Lyubomir E. Manov - Department of Computer Systems and Technology, faculty of “Artillery, AD and CIS”, National Military University “Vasil Levski”, Shumen, Bulgaria

MODERN TECHNOLOGIES WITH ARTIFICIAL INTELLIGENCE FOR
DETECTING MILITARY OBJECTS IN OPTICAL IMAGES

17.45-17.50 *Question and discussion*

WORKGROUP SESSION

SECTION

CYBERSECURITY

Chairman: LtCol. Assoc. Prof. Linko Nikolov, PhD

Location: Room 25203, Blok 25, floor II

21 November 2024

14.00-17.05

Company exhibition- "Practical cyber attacks demonstration from Max1 Cloud"

22 November 2024

09.00-09.15

Angela R. Borisova - Department Computer Systems and Technologies, "Vasil Levski" National Military University
ANALYSIS AND CLASSIFICATION OF NETWORK TRAFFIC THROUGH TOOLS AND ARTIFICIAL INTELLIGENCE ALGORHYTHMS

09.15-09.20

Question and discussion

09.20-09-35

Linko G. Nikolov, Ivet S. Zheleva, Daniel S. Mitich - Communication Networks and Systems, National Military University, Shumen, Bulgaria

NETWORK TRAFFIC IN AN INTENSE ARTILLERY BATTERY OPERATION

09.35-09.40

Question and discussion

09.40-09.55

Linko G. Nikolov, Vladimir K. Kostadinov, David Dobrev - Communication Networks and Systems Department, National Military University, Shumen, Bulgaria

NETWORK SERVICES FOR AN INTENSE ARTILLERY BATTERY OPERATION

09.55-11.00

Question and discussion

11.00-11.15

Linko G. Nikolov, Radostin S. Dimov, Georgi Dishkov, Damyan Kushev - Communication Networks and Systems, National Military University, Shumen, Bulgaria

BASIC CYBER SECURITY TESTS OVER LOCAL NETWORK AND SERVICES

11.15-11.20

Question and discussion

11.20-11.50

Linko G. Nikolov - Communication Networks and Systems, National Military University, Shumen, Bulgaria

1. SOCIAL ENGINEERING CYBERATTACKS

2. EMAIL SOCIAL ENGINEERING IN ACTION

11.50-11.55

Question and discussion

11.55-12.10

Marius Iulian. Mihailescu^{1,3}Stefania Loredana. Nita^{2,3}Valentina. Marascu^{4,1}Dan. Dumitru¹⁻¹Scientific Research Center in Mathematics and Computer Science, SPIRU HARET University, Bucharest, Romania, 2Faculty of Information Systems and Cyber Security, Military Technical Academy „Ferdinand I”, Bucharest, Romania, 3Department of Integrated Systems, Institute for Computers, Bucharest, Romania, 4National Institute for Laser, Plasma and Radiation Physics, Magurele, Romania

SECURING THE DIGITAL AGE USING QUANTUM CRYPTOGRAPHY

12.10-12.15

Question and discussion

WORKGROUP SESSION

SECTION

SOCIAL STUDIES

Chairman: Col. Eng. Assoc. Prof. Milena H. Lambeva, Ph.D.

Location: Room 25105, Block 25, floor I

21 November 2024

- 14.00-14.30 *Valya Simeonova - Logistics Support Command, Sofia, Republic of Bulgaria*
FEATURES OF COMMUNICATION BETWEEN A PSYCHOLOGIST AND A CLIENT
- 14.30-14.40 *Question and discussion*
- 14.40-14.50 *Mariela Lyubcheva Antonova Stamen Iliev Antonov - Konstantin Preslavsky University of Shumen, Shumen, Bulgaria, National Military University "Vasil Levski", Veliko Tarnovo, Faculty "Artilleryq AD and CIS",*
 1. DECISION-MAKING STYLE IN A UNIVERSITY ENVIRONMENT
 2. INDIVIDUAL DIFFERENCES IN DECISION-MAKING STYLES MEASURED BY ASSESSMENT OF THE SOCIAL ENVIRONMENT
- 14.50-15.00 *Question and discussion*
- 15.00-15.10 Coffee break
- 15.10-15.40 *Milena H. Lambeva - Faculty of Artillery, Air Defense and Communication and Information Systems, National Military University, Shumen, Bulgaria*
GRAPH BASED SOCIAL NETWORK ANALYSIS TOOLS
- 15.40-15.50 *Question and discussion*
- 15.50-16.20 *Gloria Zasheva - Department of "Information Security", Faculty of "Artillery, Air Defense and CSI" Shumen, "Vasil Levski National University" - V. Tarnovo, Bulgaria*
RESEARCH INFLUENCE OF FINE DUST PARTICLES ON RESPIRATORY PROCESSES FROM CONSTRUCTION ACTIVITY
- 16.20-16.30 *Question and discussion*
- 16.30-16.50 *Mariana Stilianova Todorova - Department of "Information Security", Faculty of "Artillery, Air Defense and CSI" Shumen, "Vasil Levski National University" - V. Tarnovo, Bulgaria*
ANALYSIS OF THE EFFECTIVE USE OF TECHNOLOGIES FOR PUBLIC DIPLOMACY AND THEIR SECURITY
- 16.50-17.00 *Question and discussion*

WORKGROUP SESSION

SECTION

GEODESY

Chairman: Prof. Andrey Ivanov Andreev, DSc

Location: Room 39203, Blok 39 floor II

21 November 2024

14.00-14.20 *Andrey I. Andreev, Nikolay H. Kopanov - Geodesy Department, Artillery, Air Defense and Communication and Information Systems Faculty - Shumen / "Vasil Levsky" National Military University*

CREATION OF A REFERENCE GEODETIC NETWORK ON THE TERRITORY OF "VASIL LEVSKI" NATIONAL MILITARY UNIVERSITY – SHUMEN REGION

14.20-14.25 *Question and discussion*

14.25-14.45 *Andrey I. Andreev¹, Petina A. Andreeva¹, Gergana A. Dimova² - ¹Geodesy Department, Artillery, Air Defense and Communication and Information Systems Faculty - Shumen / "Vasil Levsky" National Military University", ² Department of Foreign Language Training*

MODELING OF THE GEOID (QUASI-GEOID) FOR TARGOVISHTE DISTRICT

14.45-14.50 *Question and discussion*

14.50-15.10 *Yuriy I. Dachev, Andrey I. Andreev - Geodesy Department, Artillery, Air Defense and Communication and Information Systems Faculty - Shumen / "Vasil Levsky" National Military University*

THE SEA SHORE AND SEA SPACES OF BULGARIA

15.10-15.15 *Question and discussion*

15.15-15.35 *Gergana A. Dimova - Department of Foreign Language Training - Shumen / NMU "Vasil Levsky"*

CURRENT ISSUES IN THE TRANSLATION OF TEXTS FOR EDUCATIONAL, SCIENTIFIC AND ACADEMIC PURPOSES RELATED TO GEODESY, CARTOGRAPHY AND CADASTRE

15.35-15.40 *Question and discussion*

15.40-16.00 ***Georgi H. Tanev – Faculty of Artillery, Air Defense and Communication and Information Systems, National Military University, Shumen, Bulgaria***

MAINTENANCE OF THE NETWORK OF MAGNETIC STATIONS AND DETERMINATION OF THE ELEMENTS OF THE EARTH'S MAGNETIC FIELD ON THE TERRITORY OF NORTHERN BULGARIA

16.00-16.05 *Question and discussion*

16.05-16.25 ***Tanislav H. Tanev – Faculty of Artillery, Air Defense and Communication and Information Systems, National Military University, Shumen, Bulgaria***

SURVEY AND CONSTRUCTION OF POINTS OF THE NATIONAL GEODETIC NETWORK FOR THE SOUTHERN PART OF BULGARIA

16.25-16.30 *Question and discussion*

16.30-16.50 ***Dimitar I. Petrov – Department Geodesy, Air Defense and Communication and Information Systems faculty - Shumen / NMU “Vasil Levsky”***

USING UAVS TO ENHANCE ARTILLERY GEO-INFORMATION PROVISION

16.50-16.55 *Question and discussion*

16.55-17.15 ***Yasen T. Prokopov – Department Geodesy, Air Defense and Communication and Information Systems faculty - Shumen / NMU “Vasil Levsky”***

1. GRAVITY FIELD AND ITS RELATIONSHIP WITH THE POSSIBILITY OF FORECASTING GLOBAL GEODYNAMIC PHENOMENA
2. MODELING METHODS IN THE OPEN PIT MANAGEMENT

17.15-17.20 *Question and discussion*

22 November 2024

09.00-09.25 ***Neli D. Zdravcheva – University of architecture, civil engineering and geodesy, Sofia, Bulgaria***

REMOTE SENSING OF VOLCANOES

09.25-09.30 *Question and discussion*

09.30-09.55 ***Borislav Y. Bedzhev*, Monika B. Bedzheva** – NMU “Vasil Levski”, Faculty of “Artillery, AD and CIS”, Department***

“Communication networks and systems”, Shumen, Bulgaria, bedzhev, **NMU “Vasil Levski”, Faculty of “Artillery, AD and CIS”, Department “Geodesy”, Shumen,

ANALYSIS OF THE INFLUENCE OF THE NUMBER OF TIE POINTS ON THE PROCESS OF MUTUAL ORIENTATION OF A STEREO PAIR OF PHOTOGRAPHS IN LINEAR-ANGULAR COORDINATE SYSTEM

09.55-10.00 *Question and discussion*

10.00-10.25 ***Nataliia I. Lytvynenko, Olexander V. Korenets, Tamara M. Kurach, Iryna O. Pidlisetska - Military Institute of Taras Shevchenko National University of Kyiv, Kyiv, Ukraine***

GEOSPATIAL DATA FOR THE PORTAL OF THE ARMED FORCES OF UKRAINE

10.25-10.30 *Question and discussion*

10.30-10.55 ***Illia V. Martsenkovskiyi, Natalia I. Lytvynenko - Military Institute of Taras Shevchenko National University of Kyiv, Kyiv***

APPLICATION OF DEEP LEARNING METHODS FOR PROCESSING REMOTE SENSING DATA IN THE INTERESTS OF THE ARMED FORCES OF UKRAINE

10.55-11.00 *Question and discussion*

WORKGROUP SESSION

SECTION

STUDENT

Chairman: Col. Assoc. Prof. Kaloyan Iliev , PhD

Location: Room 39301, Blok 39 floor III

21 November 2024

- 14.00-14.15 ***Mariyan Borislavov Dermendzhiev - Artillery, Air Defense and Communication and Information Systems Faculty - Shumen / “Vasil Levsky” National Military University***
ANALYSIS AND ASSESSMENT OF RISK IN THE TRANSPORTATION OF DANGEROUS GOODS
- 14.15-14.20 *Question and discussion*
- 14.20-14.35 ***Hristina M. Rumenova Hristian Y. Donchev - Artillery, Air Defense and Communication and Information Systems Faculty - Shumen “Vasil Levsky” National Military University”***
UNMANNED AERIAL VEHICLES AND THEIR ROLE IN THE MODERN BATTLEFIELD
- 14.35-14.40 *Question and discussion*
- 14.40-14.55 ***Petya Nikolaeva Stefanova, Kristiqn Hristov Kostadinov - Armament Department of Design Technologies Shumen / NMU “Vasil Levsky”***
DESIGNING AND MANUFACTURING FIREARMS: WHAT MAKES A WEAPON EFFECTIVE?
- 14.55-15.00 *Question and discussion*
- 15.00-15.15 ***Nikolay P. Nikolov Martin G. Dimitrov - National Military University “Vasil Levski”, Faculty “Artillery, Air Defence and CIS”, Shumen***
ANALYSIS OF THE APPLICATION OF ADDITIVE TECHNOLOGIES IN THE MANUFACTURING OF SPECIALTY PRODUCTS

- 15.15-15.20 *Question and discussion*
- 15.20-15.35 ***Daniel Mitich, Vladimir Kostadinov, Tsvetelina Mateeva – Communication Networks and Systems, National Military University, Shumen, Bulgaria***
INTRODUCTION TO UNSOLICITED EMAIL (SPAM) AND PRACTISES FIGHTING AGAIN IT
- 15.35-15.40 *Question and discussion*
- 15.40-15.55 ***Matthew Zhelev, Plamena Ivanova – Department Artillery and Geodesy, Air Defense and Communication and Information Systems faculty - Shumen / NMU “Vasil Levsky”***
RECONSTRUCTION OF A SPORTS FACILITY - STADIUM
- 15.55-16.00 *Question and discussion*
- 16.00-16.15 ***Martin I. Ivanov Radoslav V. Rumenov – National Military University “Vasil Levski”, Faculty “Artillery, Air Defence and CIS”, Shumen***
UNMANNED AERIAL VEHICLES’S ROLE IN AIR DEFENCE
- 16.15-16.20 *Question and discussion*
- 16.20-16.35 ***Vladimir Kostadinov, Daniel Mitich, Tsvetelina Mateeva – Communication Networks and Systems, National Military University, Shumen, Bulgaria***
GENERAL OVERVIEW OF DDOS ATTACK MONITORING AND EARLY WARNING SYSTEM METHODOLOGY
- 16.35-16.40 *Question and discussion*
- 16.40-16.55 ***Hristo Mihaelov Lashovski – National Military University “Vasil Levski” Faculty “Artillery, Air defense and Communication information systems” – Shumen***
CYBERSECURITY PENETRATION TESTING AND ITS ROLE IN ORGANIZATIONAL SECURITY
- 16.55-17.00 *Question and discussion*

22 November 2024

- 09.00-09.15 ***Stela Mincheva – Technikal University of Sofia***
CREATION OF A MIND MAP AND AN ALGORITHM FOR PROJECT MANAGEMENT

- 09.15-09.20 *Question and discussion*
- 09.20-09.25 **Yaroslav G. Kalpakov, Rosen A. Bogdanov – Communication Networks and Systems Department, Artillery, Air Defense, Communication and Information Systems Faculty, National Military University „V. Levski”, Shumen, Bulgaria**
AREAS OF APPLICATION OF BLOCKCHAIN TECHNOLOGY
- 09.25-09.30 *Question and discussion*
- 09.30-09.45 **Kristian K. Hristov, Viktor D. Popov – Department Artillery, Artilleryq Air Defense and Communication and Information Systems Faculty - Shumen** MEASUREMENT OF METEOROLOGICAL CONDITIONS NEEDED FOR ARTILLERY USING A DRONEMODELING METHODS IN THE OPEN PIT MANAGEMENT
- 09.45-09.50 *Question and discussion*
- 09.50-10.05 **Ivan Ts. Raynov – Artillery, Artilleryq Air Defense and Communication and Information Systems Faculty - Shumen**
THE USE OF DRONES IN AGRICULTURE –INNOVATIVE SOLUTION FOR PRECISION AGRICULTURE
- 10.05-10.10 *Question and discussion*
- 10.10-10.35 **Georgi Hristov – National Military University "Vasil Levski", Faculty of "Artillery, Air Defense and CSI"**
THE FIRST BULGARIAN EMPIRE
- 10.35-11.40 *Question and discussion*
- 11.40-11.55 **Georgi O. Georgiev – Department of Computer Systems and Technogies, Faculty of Artilery, Air Defence and Communication and Information Systems/National Military University, Shumen, Bulgaria**
CLOSE RANGE RADAR SYSTEM IMPLEMENTED ON ARDUINO ELECTRONIC PLATFORM
- 11.55-12.00 *Question and discussion*
- 12.00-12.15 **Mario V. Vasilev, Dobri S. Stoyanov, Vladislava S. Georgieva, Kaloyan D. Dimitrov – Communication Networks and Systems Department, Artillery, Air Defense, Communication and Information Systems Faculty, National Military University „V. Levski”, Shumen, Bulgaria**
TWO APPROACHES FOR PROTECTING DATA INTEGRITY USING

CALCULATIONS IN NON-BINARY FINITE ALGEBRAIC SYSTEMS

12.15-12.20 *Question and discussion*

12.20-12.35 ***Mario V. Vasilev, Dobri S. Stoyanov, Vladislava S. Georgieva, Yaroslav Kalpakov – Communication Networks and Systems Department, Artillery, Air Defense, Communication and Information Systems Faculty, National Military University „V. Levski”, Shumen, Bulgaria***

AREAS OF APPLICABILITY OF DATA INTEGRITY PROTECTION TECHNOLOGIES

12.35-12.40 *Question and discussion*

12.40-12.55 ***Lyuboslav Georgiev – Department Geodesy, Artillery, Air Defense and Communication and Information Systems faculty - Shumen / NMU “Vasil Levsky”***

CAUSES OF THE OUTBREAK OF WORLD WAR II

12.55-13.00 *Question and discussion*

13.00-13.15 ***Ilinka Iwanowa, Matthew Zhelev, Plamena Ivanova – Department Geodesy, Air Defense and Communication and Information Systems faculty - Shumen / NMU “Vasil Levsky”***

RECONSTRUCTION OF A SPORTS FACILITY - STADIUM

13.15-13.20 *Question and discussion*

13.20-13.35 ***Venelin S. Kozhuharov, Radostin Georgiev – Department Geodesy, Air Defense and Communication and Information Systems faculty - Shumen / NMU “Vasil Levsky”***

NEW STANDARDS AND METHODS FOR GEODETIC ACCESSIBILITY AT COMPLEX INTERSECTIONS

13.35-13.40 *Question and discussion*

13.40-13.55 ***Ilinka Iwanowa, Plamena Ivanova, Venelin Kozhuharov – Department Geodesy, Air Defense and Communication and Information Systems faculty - Shumen / NMU “Vasil Levsky”***

APPLICATION OF GEOINFORMATION TECHNOLOGIES IN THE ARMED FORCES DURING DISASTERS, ACCIDENTS AND CATASTROPHES

13.55-14.00 *Question and discussion*