

***“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 – FACULTY OF NATIONAL DEFENSE  
AND LOGISTICS***

***REZEKNE ACADEMY OF TECHNOLOGIES, REZEKNE, REPUBLIC OF LATVIA***

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***INTERNATIONAL  
SCIENTIFIC  
CONFERENCE 2019***

***EXHIBITION  
OF PRODUCTS FOR  
SECURITY AND DEFENSE***



***CO-FINANCED BY SCIENTIFIC RESEARCHES FUND OF MINISTRY OF EDUCATION  
AND SCIENCE CONTRACT № KII-06-MHΦ/19 / 16.07.2019***

# ***A G E N D A***

***October 1-3, 2019  
Shumen, Bulgaria***

## **ORGANIZING COMMITTEE**

### **GENERAL CO-CHAIRS**

- *Col. Ivan MALAMOV, Rector and Commandant of “Vasil Levski” National Military University, Bulgaria*
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- *Professors, Dr.sc.ing. Edmunds TEIRUMNIEKS, Latvia,*
- *member of the state parliament of Latvia, education committee*
- *Professor Grigore ALBEANU, PhD, Dean of Faculty of Engineering, Informatics and Geography, „Spiru Haret“ University, Bucharest, Romania*

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- *Col. Assoc. Prof. Szmon MITKOW, Ph.D., Dean of Faculty of Logistics, Military University of Technology; Poland*
- *Prof. assoc. Jacek NOWAK, Polish Air Force University*

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- *LTC Cristian ENE , Air Defense and Surveillance Department/Faculty of Air Security Systems/ “Henry Coanda” Air Force Academy, Romania*
- *Prof. Gheorghe Iordan DUDA, Institutional Erasmus+ Coordinator, „Spiru Haret“ University, Bucharest, Romania*

## **1 October 2019**

- |  |               |
|--|---------------|
| 1. Registration  | 08.30 – 10.45 |
| 2. Opening ceremony                                      | 11.00 - 11.20 |
| 3. Plenary session                                       | 11.20 – 13.30 |
| 4. Lunch break   | 13.30 - 14.30 |
| 5. Presentations of products for security<br>and defense | 14.30 – 16.00 |
| 6. Workgroup sessions                                    | 16.00 - 17.30 |
| 7. Official Dinner                                       | 19.30         |

## **2 October 2019**

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|-----------------------|---------------|
| 1. Workgroup sessions | 09.00 - 17.00 |
|-----------------------|---------------|

## **3 October 2019**

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|---------------------------------------|---------------|
| 1. Transportation to the firing field | 08.30 - 11.00 |
| 2. Field Artillery Shooting Show      | 11.00 - 14.00 |
| 3. Departure of Participants          | 14.30         |

**1 October 2019**

**I panel**

***Location: Briefing Hall 7201, Foreign Language Department  
(Block 26), 2<sup>nd</sup> floor***

**PLENARY SESSION**

✓ SAFETY CULTURE IN A SMALL HOMETLAND	11.30-11.50	- Lt Col. Paweł Ostolski - War studies university, Warsaw, Po- land
▪ Questions and discussion	11.50-12.00	
✓ THE IMPACT OF 5G TECHNOLOGY ON CYBERSECURITY ENVIRONMENT	12.00-12.20	- Prof. PhD. Benedictos Iorga - Spiru Haret University, Faculty of Engineering and Computer Science, Bucharest, Romania
▪ Questions and discussion	12.20-12.30	
✓ DEVELOPMENT OF COMMAND SUPPORT SYSTEMS BASED ON CWIX 2019 EXERCISE	12.30-12.50	- LtCol. Bartosz Biernacik PhD. Eng. - Chief of CIS Branch, AFR, War studies university, Warsaw, Poland
▪ Questions and discussion	12.50-13.00	
✓ ASSESSMENT OF IRAQ'S AIR DEFENSE SYSTEM IN THE IRAQI FREEDOM OPERATION	13.00-13.20	- Assoc. Prof. PhD Adam Radomyski, Paweł Bernat - Department of National Security and Logistics, Polish Air Force University in Dęblin, Poland
▪ Questions and discussion	13.20-13.30	
Lunch break	13.30-14.30	

## II panel

*Location: Briefing Hall 7201, Foreign Language Department  
(Block 26), 2<sup>nd</sup> floor*

Presentation of the Defensive Products

**14.30-16.00**

„Dunarit“

„Opticoelectron Company” – Panagiurishte

„Arkus“

„Seydzhconsultants“

Vazovski mashinostroitelni zavodi

**Workgroup session**  
**SECTION**  
***DEFENSE AND SECURITY***

**Chairman: Col. Assoc. Prof. PhD Atanas Lenkov Atanasov**  
**Location: Room 08410, Block 8, IV floor**

***1 October 2019***

- 16.00-16.15 ***LtC. Nikolay Krastev – Ministry of Defence, Bulgaria***  
SAMPLES BULGARIAN JOINT FORCE COMMAND STANDARD OPERATIONAL INSTRUCTIONS FOR JOINT TARGETING WORKING GROUP AND JOINT TARGETING COORDINATION BOARD
- 16.15-16.30 ***Cap. III r. Zhivko St. Yordanov – Military unit 32300, Varna, Bulgaria***  
EMPIRICAL RESEARCH OF INTERACTION BETWEEN BLGARIAN ARMED FORCES AND OTHER INSTITUTIONS IN THE PROTECTION OF INTERNAL SECURITY
- 16.30-17.00 ***Atanas St. Atanasov – National Defense College „G. S. Rakovski”, Bulgaria***  
1. TYPES OF EFFECTS IN JOINT OPERATIONS  
2. NEW ARTILLERY SYSTEMS AND CONCEPTS FOR USE OF ARTILLERY
- 17.00-17.15 ***Atanas St. Atanasov, Atanas Vl. Atanasov – National Defense College „G. S. Rakovski”, Bulgaria***  
AERIAL SURVEYLLANCE EFFICIENCY DURING ARTILLERY FIRING SERVICE
- 17.15-17.30 ***Kalin V. Gradev – National Defense College „G. S. Rakovski”, Bulgaria***  
CHALLENGES TO LAND FORCES EMERGING FROM NEW TECHNOLOGIES

***2 October 2019***

- 09.30-09.45 ***Col. Lyubomir K. DucheV - Service "Military Police", Varna***  
GOVERNANCE, COMMAND AND MANAGEMENT OF THE ARMED FORCES IN PARTICIPING IN DISASTER PROTECTION OPERATIONS IN THE COUNTRY
- 09.45-10.15 ***Maj. eng. Radoslav B. Chalakov - National Defense College „G.S.Rakovski”, Bulgaria***  
1. PLANNING OF THE FIRE SUPPORT IN THE PROCESS OF PLANNING ON OPERATIONS  
2. HISTORY AND CURRENT POTENTIALS NEEDED TO IMPROVE THEM
- 10.15-10.30 ***Maj. eng. Radoslav B. Chalakov, Dimitar Shomov – National Defense College „G. S. Rakovski”, Bulgaria***  
EFFECTIVENESS OF REACTIVE ARTILLERY IN DESTROYING DIFFERENT OBJECTIVES OF THE FIELD

- 10.30-10.45 ***Yordan Petkov - National Defense College „G. S. Rakovski”, Bulgaria***  
BASIC GUIDELINES FOR INCREASING THE SKILLS OF RECONNAISSANCE FORMATION PERSONNEL
- 10.45-11.00 ***Assoc. Prof. PhD Hristo A. Hristov - University of Shumen “Bishop Konstantin Preslavsky”***  
***Prof. PhD Veliko P. Petrov - “Artillery, Air Defense and CIS” Faculty***  
MILITARY COUNTERINTELLIGENCE IN THE INTELLIGENCE COMMUNITY OF RUMANIA
- 11.00-11.30 Coffee break
- 11.30-11.45 ***Hristo Al. Georgiev - National Defense College „G. S. Rakovski”, Bulgaria***  
PARTICIPATION AND SPECIFIC TASKS OF THE SOF IN PEACETIME CRISIS MANAGEMENT OPERATIONS
- 11.45-12.00 ***Maj. Dimo V. Ginev - National Defense College „G. S. Rakovski”, Bulgaria***  
MISSION, FUNCTIONS, AND TASKS OF THE NON-MILITARY COMPONENT IN THE COLLECTIVE DEFENSE
- 12.00-12.15 ***Milen N. Kisyov - National Defense College „G. S. Rakovski”, Bulgaria***  
CROSS-BORDER MIGRATION AND THE RECEIVING COMMUNITY: MECHANISMS AND PRACTICES FOR MUTUAL ADAPTATION
- 12.15-12.30 ***Nikolay Y. Dosev - “Artillery, Air Defense and CIS” Faculty***  
***Vladislav S. Savov – Service "Military Police", Varna***  
CHALLENGES FOR DEFENSE POLICY IN THE NATIONAL SECURITY STRATEGY
- 12.30-12.45 ***Zhaneta St. Georgieva-Panayotova - University of Shumen “Bishop Konstantin Preslavsky”***  
SECURITY SYSTEMS IN THE COMMERCIAL BANKS
- 12.45-13.00 ***Svetlin E. Stefanov – University of Shumen “Bishop Konstantin Preslavsky”***  
JUDICIAL REVIEW OF THE SECURITY SECTOR - A GUARANTEE FOR HUMAN RIGHTS PROTECTION
- 13.00-14.00 Lunch break
- 14.00-14.15 ***LtC. PhD. Stoyan N. Chanev – “Artillery, Air Defense and CIS” Faculty***  
THE ARMED FORCES COMMAND AND CONTROL SYSTEM IN HYBRID WARS
- 14.15-14.30 ***Col. Assoc. Prof. PhD Atanas L. Atanasov - “Artillery, Air Defense and CIS” Faculty***  
AEROSPACE FORCES AS A MEANS OF STRATEGIC DETERRENCE

- 14.30-14.45 **Anatoly I. Andreev - University of Library Science and Information technologies**  
ENERGY SECURITY AS AN ELEMENT OF NATIONAL SECURITY
- 14.45-15.00 **Col. Assoc. Prof. PhD Dilyan K. Markov - “Artillery, Air Defense and CIS” Faculty**  
INFLUENCE OF THE INTERVALS BETWEEN THE ARTILLERY SYSTEMS PLACEMENT ON FIRE POSITION
- 15.00-15.15 **Assoc. Prof. PhD Hristo A. Desev - “Artillery, Air Defense and CIS” Faculty**  
ENERGY CRITICAL INFRASTRUCTURE RISK ASSESSMENT TECHNOLOGY
- 15.15-15.30 **Prof. PhD Veliko P. Petrov, Col. Assoc. Prof. PhD Stancho G. Stanchev - “Artillery, Air Defense and CIS” Faculty**  
HYBRID WAR, THE MOST MODERN CONCEPT OF MILITARY CONFLICTS
- 15.30-15.45 **Col. Assoc. Prof. PhD Stancho G. Stanchev, Prof. PhD Veliko P. Petrov – “Artillery, Air Defense and CIS” Faculty**  
FORMATION OF CREATIVE PERSONALITIES IN THE SYSTEM OF PROFESSIONAL QUALIFICATION OF ARTILLERY SPECIALISTS
- 15.45-16.15 Coffee break
- 16.15-16.45 **LtC. PhD Eng. Kaloyan A. Iliev - “Artillery, Air Defense and CIS” Faculty**  
1. AUTHORITIES FOR PLANNING AND MANAGING JOINT EFFECTS IN NATIONAL JOINT FORCE OPERATIONS  
2. PROCEDURE FOR THE OPERATION OF JOINT EFFECTS PLANNING AND MANAGEMENT BODIES IN THE OPERATIONS OF NATIONAL JOINT FORCES  
3. "INFORMATION WAR" FACTOR IN MODERN MILITARY CONFLICTS
- 16.45-17.15 **First leut. Ivelin G. Katsev - “Artillery, Air Defense and CIS” Faculty**  
1. METHOD FOR EVALUATION OF THE ARTILLERY FIRE EFFECTIVENESS AGAINST AREA TARGET  
2. REGRESSION AND CORRELATION ANALYSIS OF FACTORS INFLUENCING ARTILLERY FIRE  
3. METHOD FOR CLASSIFICATION AND PRIORITIZATION OF THE TARGETS ENGAGED BY ARTILLERY



**Workgroup session**  
**SECTION**  
***ARMS, TECHNOLOGIES, LOGISTICS***

**Chairman: Col. Assoc. Prof. PhD Krasimir Gochev Kalev**  
**Location: Room 08102, Block 8, Ground floor**

***2 October 2019***

- 10.00-10.15 ***Florin-Marian Dîrloman, Traian Rotariu, Mihai Ionuț Ungureanu - Military Technical Academy, Bucharest, Romania, Tudor-Viorel Țigănescu - Military Equipment and Technologies Research Agency, Ilfov, Romania***  
ECO-FRIENDLY OXIDIZERS: MINIREVIEW
- 10.15-10.30 ***Cristian Ene, Cristian-George Constantinescu - Department of Surveillance and Air Defense, “Henri Coandă” Air Force Academy, Brașov, Romania***  
INCREASING THE AIR DEFENSE CAPACITY BASED ON THE IMPLEMENTATION OF THE MODERN AIR DEFENSE MISSILES
- 10.30-10.45 ***Marius Alexandru Rizescu - “Nicolae Bălcescu” Land Forces Academy, Sibiu, Romania***  
***George Bucăța - “Lucian Blaga” University, Sibiu, Romania***  
ORGANIZATIONAL CHANGE STRATEGIES AND METHODS OF EVALUATION
- 10.45-11.00 ***LtC. PhD Svetozar B. Botev – Joint force command, Bulgaria, Sofia***  
SHAPED CHARGE WITH DIFFERENT LINER MATERIALS
- 11.00-11.30 Coffee break
- 11.30-11.45 ***LtC. PhD Svetozar B. Botev, PhD Valya M. Simeonova - Joint force command, Bulgaria, Sofia***  
DEVELOPMENT BULGARIAN ARMY FULL INTEGRATED LOGISTIC SYSTEM
- 11.45-12.00 ***PhD eng. Maxim M. Alashki – Ministry of Defence, Defence Acquisition Directorate***  
DOCUMENT REGULATING THE LIFE CYCLE MANAGEMENT OF DEFENSE PRODUCTS IN THE MINISTRY OF DEFENCE
- 12.00-12.15 ***Col. Assoc. Prof. DrSc Borislav G. Genov – “Prof. Tsvetan Lazarov” Defence Institute, MoD***  
АНАЛИЗ НА ПОДХОДИТЕ ЗА ИЗКУСТВЕНО СЪСТАРЯВАНЕ НА ЕДНОКОМПОНЕНТНИ И ДВУКОМПОНЕНТНИ ТВЪРДИ РАКЕТНИ ГОРИВА - ОБЗОР

- 12.15-12.30 **Col. Assoc. Prof. PhD Dimitar A. Kirkov - “Prof. Tsvetan Lazarov” Defence Institute, MoD**  
АНАЛИЗ НА СИСТЕМАТА ЗА ИЗПИТВАНЕ НА ИНЖЕНЕРНИ БОЕПРИПАСИ
- 12.30-12.45 **Assoc. Prof. PhD Ilian D. Hutov - “Prof. Tsvetan Lazarov” Defence Institute, MoD**  
ТЕНДЕНЦИИ В РАЗВИТИЕТО НА ВЗРИВНИ ВЕЩЕСТВА С ПОНИЖЕНА ЧУВСТВТЕЛНОСТ ЗА СНАРЯДЯВАНЕ НА АРТИЛЕРИЙСКИ БОЕПРИПАСИ
- 12.45-13.00 **Ivaylo I. Ralev – National Defense College „G. S. Rakovski”, Bulgaria**  
IMPROVING THE SUPPLY OF THE AIR FORCE UNITS DURING OPERATIONS
- 13.00-14.00 Lunch break
- 14.00-14.15 **Miroslav St. Dimitrov – National Defense College „G. S. Rakovski”, Bulgaria**  
THEORETICAL ASPEKTS OF THE SUPPLY OF AMMUNITION
- 14.15-14.30 **Delyan N. Nedelchev – Aviation base – Graf Ignatievo**  
НАУЧНООБОСНОВАН ПОДХОД ЗА УДЪЛЖАВАНЕ НА СРОКА НА ГОДНОСТ НА АВИАЦИОННИ БОЕПРИПАСИ
- 14.30-14.45 **Assoc. Prof. PhD Andrey I. Bogdanov - University of Shumen “Bishop Konstantin Preslavsky”**  
A NEW APPROACH TO STORAGE CAPACITY INCREASE
- 14.45-15.00 **LtC. Assoc. Prof. PhD Conuy G. Conev – “Artillery, Air Defense and CIS” Faculty**  
**Assoc. Prof. PhD Hristo A. Hristov - University of Shumen “Bishop Konstantin Preslavsky”**  
EXPERIMENTAL RESEARCH ON THE VARIATIONS IN HIT DISTANCE AND DEVIATION ELLIPSE DURING THE USE OF DIFFERENT GUNPOWDER TYPES WHEN OPERATING THE 82MM MORTAR AND 82MM REUSABLE TRAINING MORTAR ROUND FOR SHORT DISTANCE ENGAGEMENT
- 15.00-16.00       ▪ Questions and discussion
- 16.00-16.30 Coffee break
- 16.30-17.00       ▪ Questions and discussion

**Workgroup session**  
**SECTION**  
**COMMUNICATION AND COMPUTING TECHNOLOGIES**

**Chairman: Assoc. Prof. PhD Rosen Atanasov Bogdanov**

**Location: Room 08201, Block 8, second floor**

**2 October 2019**

- 10.00-10.15     **Anastas N. Madzharov - Institute of Information and Communication Technologies, Bulgarian Academy of Sciences, Sofia**  
TECHNICAL IMPLEMENTATION OF A REPORTING SYSTEM AND ITS WORKFLOWS
- 10.15-11.00     **Kolyo P. Kolev, Radoslav K. Velikov - Aviation Faculty, National Military University „Vasil Levski“, Dolna Mitropolia, Bulgaria**  
1. CALCULATION OF COMBUSTION CHAMBER DINAMIC CHARACTERISTICS OF AVIATION BOMB FOR FIRE EXTINGUISHING BY COMPUTER-ASSISTED MODELING  
2. CALCULATION OF DINAMIC CHARACTERISTICS OF AVIATION BOMBS FOR PENETRATION INTO MULTILAYER STRUCTURE BY COMPUTER-ASSISTED MODELING  
3. CALCULATION OF COMBUSTION CHAMBER DINAMIC CHARACTERISTICS OF ROCKET MOTOR SOLID-PROPELLANT ENGINE BY COMPUTER-ASSISTED MODELING
- 11.00-11.30     Coffee break
- 11.30-11.45     **Plamen A. Ananiev**  
COMPARISION OF DISCRETE SINE TRANSFORM BASED OFDM WITH DFT
- 11.45-12.00     **Borislav A. Minchev**  
IMPLEMENTATION AND CONTRASTING COMPARISION OF TRANSFORM TECHNIQUES OF OFDM
- 12.00-12.15     **Assoc. Prof. PhD. Rosen A. Bogdanov, Assoc. Prof. PhD Nikolai Kulev, kap. Eng. Miroslav G. Nedelchev - Artillery, Air Defense and CIS Faculty**  
ESTIMATION OF DIRECTIONS OF ARRIVAL, APPLIED TO FIFTH GENERATION NETWORKS
- 12.15-12.30     **Assoc. Prof. PhD. Todor G. Peshev - Artillery, Air Defense and CIS Faculty**  
RADAR SYSTEM WITH SYNTHESIZED ANTENNA APERTURE

- 12.30-12.45     ***Assoc. Prof. PhD Georgi Mazadzhiev, Col. Prof. PhD Sasho S. Evlogiev, Assistant Prof. Valentin T. Atanasov - Artillery, Air Defense and CIS Faculty***  
 CONCEPTUAL MODEL OF SMART HOME MOBILE TECH-NOLOGICAL SYSTEM
- 12.45-13.00     ***LtC. PhD Dimitar G. Chobanov - Artillery, Air Defense and CIS Faculty***  
 ASK DISCRETE SINE TRANSFORM BASED ORTHOGONAL FREQUENCY – DIVISION MULTIPLEXING
- 13.00-14.00     Lunch break
- 14.00-14.15     ***As. eng. Angela R. Borisova - Artillery, Air Defense and CIS Faculty***  
 CONTEMPORARY LANGUAGES FOR PROGRAMMING ARTIFICIAL INTELLIGENCE
- 14.15-14.30     ***Kap. eng. Dimitar I. Sumulyov - Artillery, Air Defense and CIS Faculty***  
 FORMATION OF TARGET RADAR IMAGE, BY COMPARING OF TWO CORES FOR ANALYZE THE RADIOLOCATION INFORMATION
- 14.30-15.15     ***Kap. eng. Dyanko K. Hubenov, Assoc. Prof. PhD Nikolai Kulev, Assoc. Prof. PhD. Rosen A. Bogdanov - Artillery, Air Defense and CIS Faculty***  
 1. ADALM-PLUTO BUILD SDR SYSTEM PROGRAMMING  
 2. ADALM-PLUTO BUILD SDR SYSTEM TESTING  
 3. ADALM-PLUTO BUILD SDR SYSTEM FREQUENCY BAND SWITCH TESTS
- 15.15-16.00     ▪ Questions and discussion
- 16.00-16.30     Coffee break
- 16.30-17.00     ▪ Questions and discussion

## Workgroup session

### SECTION

### *SOCIAL SCIENCE*

**Chairman: Assoc. Prof. DrSc Krasimir Markov Markov**

**Location: Room 25103, Block 25, Ground Floor**

***2 October 2019***

10.00-10.15 *Assoc. Prof. DrSc Krasimir M. Markov - Artillery, Air Defense and CIS Faculty*

FOR BASIC CONCEPTS IN EXTREME PSYCHOLOGY

10.15-10.30 *Prof. PhD. Veliko P. Petrov – “Artillery, Air Defense and CIS” Faculty*  
*Assoc. Prof. PhD Hristo A. Hristov - University of Shumen “Bishop Konstantin Preslavsky”*

INTERNATIONAL ORGANIZATIONS AND INSTITUTIONS WORKING ON ENVIRONMENTAL PROBLEMS

10.30-10.45 *Assoc. Prof. PhD. Mariyana St. Todorova - “Artillery, Air Defense and CIS” Faculty*

ECOLOGICAL MIGRATION

11.00-11.30 Coffee break

11.30-13.00     ▪ Questions and discussion

13.00-14.00 Lunch break

14.00-17.00     ▪ Questions and discussion

**Workgroup session**  
**SECTION**  
***CYBERSECURITY***

**Chairman: Assoc. Prof. DrSc Zhaneta Nikolaeva Savova**  
**Location: Room 25105, Block 25, Ground Floor**

***2 October 2019***

10.00-10.15 ***Georgi T. Gerasimov - Intellect TGK***

СЪВРЕМЕННИ РЕШЕНИЯ ЗА ЗАЩИТА НА СТАЦИОНАРНИ СТРАТЕГИЧЕСКИ  
ОБЕКТИ

10.15-10.30 ***Pavel G. Gerasimov - Intellect TGK***

ХИБРИДНИ ОБЛАЧНИ ТЕХНОЛОГИИ ОТ НОВО ПОКОЛЕНИЕ

10.30-11.00 ***Yana E. Kolegova-Delcheva***

CRYPTOGRAPHY - A PART OF CYBER SECURITY IN THE ARMED FORCES

11.00-11.30 Coffee break

11.30-13.00     ▪ Questions and discussion

13.00-14.00 Lunch break

14.00-16.00     ▪ Questions and discussion

16.00-16.30 Coffee break

16.30-17.00     ▪ Questions and discussion

## WORKGROUP SESSION

### STUDENTS' SECTION

**Chairman: PhD Eng. Veselka Todorova Stoyanova**  
**Location: Room 25106, Block 25, Ground Floor**

**2 October 2019**

- 10.00-10.15 **Luboslav M. Bochev - Vasil Levski National Military University, Bulgaria**  
APPLICATION OF MODERN INFORMATION TECHNOLOGIES IN THE COMMUNICATION AND INFORMATION SYSTEMS FOR DEFENSE
- 10.15-10.30 **Plamena Tsv. Tsvetanova, Assoc. Prof. PhD. Veselka T. Stoyanova - Vasil Levski National Military University, Bulgaria**  
RESEARCH OF SYSTEMS FOR INTERACTION BETWEEN PEOPLE AND MACHINES IN THE MANAGEMENT OF PHYSICAL OBJECTS
- 10.30-10.45 **Dancho D. Talev - Vasil Levski National Military University Bulgaria**  
STUDYING PRODUCTS AND SERVICES FOR HIDING DATA IN IMAGES
- 10.45-11.00 **Stefani S. Georgieva - Vasil Levski National Military University, Bulgaria**  
ARTIFICIAL INTELLIGENCE: IMPLICATIONS FOR ARMED FORCES
- 11.00-11.30 Coffee break
- 11.30-11.45 **Aleksandar D. Kumanov, Gancho H. Hristev - Vasil Levski National Military University, Bulgaria**  
RFID MODULE INTERFACING WITH ARDUINO UNO
- 11.45-12.00 **Gancho H. Hristev, Aleksandar D. Kumanov - Vasil Levski National Military University, Bulgaria**  
CONTROLLING 12 LEDS WITH ARDUINO UNO
- 12.00-12.15 **Mihaela A. Karadocheva, Ekaterina M. Konstantinova, Albena B. Aleksandrova - University of Shumen "Bishop Konstantin Preslavsky"**  
SOCIAL NETWORKS AND DIGITAL SECURITY
- 12.15-12.30 **Nikolay A. Arhangelov, Viktor V. Lilov - University of Shumen "Bishop Konstantin Preslavsky"**  
ANALYSIS OF MAGNETIC PARTICLE INSPECTION AS A TYPE OF NON-DESTRUCTIVE TESTING METHOD
- 12.30-12.45 **Ekaterina M. Konstantinova, Viktor V. Lilov - University of Shumen "Bishop Konstantin Preslavsky"**  
INFLUENCE OF DIGITAL TECHNOLOGY ON E-LEARNING

- 12.45-13.00 ***Ekaterina M. Konstantinova, Mihaela A. Karadocheva, Tsvetoslav S. Tsankov - University of Shumen "Bishop Konstantin Preslavsky"***  
THE INVISIBLE INTERNET AND CYBER SECURITY
- 13.00-14.00 Lunch break
- 14.00-14.15 ***Ekaterina M. Konstantinova, Aleksandar S. Bradvarov - University of Shumen "Bishop Konstantin Preslavsky"***  
POWER OF BLOCKCHAIN TECHNOLOGY: REDEFINING AND DEMOLISHING TRUST IN DIGITAL ECONOMY
- 14.15-14.45 ***Miroslav P. Dimitrov, maj. PhD Stamen I. Antonov - Vasil Levski National Military University, Bulgaria***  
1. APPLICATION OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN CAD/CAM SYSTEMS  
2. PLOTTING DHT11 SENSOR READINGS ON MATLAB
- 14.45-15.00 ***Miroslav S. Karov - Vasil Levski National Military University, Bulgaria***  
INOVATIONS IN SMALL ARMS SYSTEMS
- 15.00-15.15 ***Marina R. Monova - Vasil Levski National Military University, Bulgaria***  
IMPROVISED SMALL ARMS DURING CRISES OF NON-MILITARY CHARACTER
- 15.15-15.30 ***Rositsa K. Pencheva - Vasil Levski National Military University, Bulgaria***  
ELECTROMAGNETIC BOMBS
- 15.30-15.45 ***Petya R. Petkova - Vasil Levski National Military University, Bulgaria***  
LASER WEAPON
- 15.45-16.00 ***Ivan S. Savov - Vasil Levski National Military University, Bulgaria***  
APPLICATION OF FIELD-PROGRAMMABLE GATE ARRAYS IN DEFENSE
- 16.00-16.30 Coffee break
- 16.30-16.45 ***Miroslav Ev. Stoimenov - Vasil Levski National Military University, Bulgaria***  
CAPABILITIES AND NEW APPLICATIONS FOR NON-LETHAL WEAPON SYSTEMS IN THE FIELD OF SECURITY AND DEFENCE
- 16.45-17.00 ***Aleks R. Aleksiev - Vasil Levski National Military University, Bulgaria***  
PENETRATION OF ELECTRONICS INTO FIRE SYSTEM AND GUNS