

Defence Technologies

11 September 2025

Panel 1: Hall 2. Central Military Club of Serbia

Defence Technologies in Contemporary Armed Conflicts

Chair: Assoc. Prof. Damir Jerković, PhD, Deputy Chair Assoc. Prof. Nebojša Hristov, PhD

- 1) Tamara Gajić, APPLICATION OF ARTIFICIAL INTELLIGENCE FOR MILITARY PURPOSES-CHALLENGE OR THREAT?
- 2) Vladan Anićijević, CARBONIZED YOUNG WALNUTS AS A PROMISING SORBENT FOR THE REMOVAL OF ORGANOPHOSPHATE COMPOUNDS FROM CONTAMINATED WATER.
- 3) Vladan Anićijević, ADSORPTION OF MALAOXON ON TAILORED CARBON ADSORBENTS FOR WATER DECONTAMINATION.
- 4) Aleksa Anićić, ANALYSIS OF BALLISTIC PARAMETERS IN THE PROCESS OF TESTING AND CONTROLLING 7.62×54R MM RIFLE AMMUNITION WITH DIFFERENT TYPES OF PROPELLANT CHARGE.
- 5) Biljana Vučković, SPATIAL DISTRIBUTION OF THE AMBIENT DOSE EQUIVALENT OF GAMMA RADIATION IN THE RAŠKA REGION.
- 6) Damir Jerković, EXPERIMENTAL ANALYSIS OF THE CHARACTERISTICS OF THE SMALL ARMS WEAPON WITH 9X39 MM ARMOR-PIERCING SUBSONIC AMMUNITION SYSTEM.
- 7) Nebojša Hristov, ANALYSIS OF APPLICATION OF THE 9X39 MM SUBSONIC AMMUNITION SYSTEM ON EXISTING AUTOMATIC SMALL-ARMS MODULAR PLATFORM.
- 8) Katarina Nestorović, ANALYSIS OF A MODERN THERMAL IMAGING DEVICES FOR MILITARY APPLICATION.

Panel 2: Hall 1. Central Military Club of Serbia

Military Technologies in Support of Decision-Making and the Employment of Military Units

Chair: Assoc. Prof. Dragan Trifković, PhD, Deputy Chair Asst. Prof. Marjan Milenkov, PhD

- 1) Jasmina Vujadinović, OPTIMIZATION IN MILITARY UAV OPERATIONS: A MATHEMATICAL PERSPECTIVE.
- 2) Zbyšek Korecki, DAY OF SUPPLY OPTIMIZATION FOR MATERIAL CLASSES 5.0: EFFECT ON COMBAT ABILITY AND COMBAT BATTALION LOSSES.
- 3) Touati Adli, COMPARATIVE ANALYSIS OF YOLO ALGORITHMS FOR TARGET DETECTION AND CLASSIFICATION IN REMOTE SENSING IMAGES.
- 4) Marjan Milenkov, TRENDS IN THE DEVELOPMENT OF DEFENSE LOGISTICS.
- 5) Miloš Basarić, GEOTOPOGRAPHIC SUPPORT OF THE SERBIAN ARMED FORCES THROUGH THE APPLICATION OF SAR TECHNOLOGY – FLOOD MONITORING.
- 6) Mohammed Zouaoui Laidouni, MILITARY CAMOUFLAGED TARGET DETECTION THROUGH MULTIMODAL IMAGES: A COMPARATIVE STUDY.

- 7) Nima Farzamnia, APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN COGNITIVE WARFARE

Panel 3: Hall 1. Central Military Club of Serbia

Defence Technologies: Aspects of the Application of Modern Weapons and Military Equipment

Chair: Asst. Prof. Darko Lukić, PhD, Deputy Chair Prof. Nenad Galjak, PhD

- 1) Marina Simović Pavlović, IMPORTANCE OF OPTIMIZATION OF OPTICAL SYSTEMS IN THE ARMY.
- 2) Negovan Ivanković, MODERN MATERIALS AND TECHNOLOGIES USAGE FOR FAST RESPONSE IN EMERGENCY SITUATIONS.
- 3) Nenad Galjak, VISUALIZATION OF GEOSPATIAL DATA IN THE TEACHING OF MILITARY TOPOGRAPHY USING GIS.
- 4) Siniša Drobnjak, CHANGE DETECTION OF BUILDINGS PRESENTED ON TOPOGRAPHIC MAPS BASED ON ARTIFICIAL INTELLIGENCE.
- 5) Snežana Mališić, EXPERIMENTAL RESEARCH OF CHANGES IN PHYSICAL PARAMETERS FOR THE PURPOSE OF EVALUATING PMV AND PPD CRITERIA OF THERMAL COMFORT IN TEST PREMISES.
- 6) Jelena Gržetić, MECHANICAL AND THERMAL PROPERTIES OF CARBON FIBER REINFORCED EPDM-BASED HEAT SHIELDING MATERIALS AS INSULATORS FOR SOLID ROCKET MOTORS
- 7) Darko Lukić, APPLICATION OF EEA AND COPERNICUS PRODUCTS IN TERRAIN ANALYSIS THROUGH GIS.

12 September 2025

Panel 4: Hall 1. Central Military Club of Serbia

Defence Technologies and the Defence Industry

Chair: Prof. Mihael Bučko, PhD, Deputy Chair Assoc. Prof. Vlada Sokolović, PhD

- 1) Vlada Sokolović, THE IMPACT OF CONTEMPORARY TECHNOLOGIES ON THE DEVELOPMENT OF MILITARY ARMAMENTS AND EQUIPMENT.
- 2) Vuk Mićunović, THE IMPACT OF USING TRAINING DEVICES AND SIMULATORS IN PILOT TRAINING: A CASE STUDY BASED ON PBN PERFORMANCE.
- 3) Zoran Maksimović, GENERALIZATIONS OF THE ROMAN DOMINATION PROBLEM.
- 4) Violeta Nikolić, IMPROVEMENT OF PLD SYNTHESIS OF E-FE₂O₃ THIN FILMS.
- 5) Boban Ceković, THREATS OF POTENTIAL USE OF NANOMATERIALS AS HOME-MADE EXPLOSIVES.
- 6) Branislav Belotić, COMPARATIVE REVIEW OF SQL SERVER DATABASE PROTECTION THROUGH ENCRYPTION.
- 7) Danica Bajić, DESIGN AND MODELLING OF PLASTIC EXPLOSIVES WITH REDUCED VELOCITY OF DETONATION.
- 8) Marica Bogosavljević, EFFECT OF CONTENT OF NANO-SIZED PARTICLES OF COPPER (II) OXIDE (CUO) AND MANGANESE (IV) OXIDE (MNO₂) ON

PROCESIBILITY AND INNER BALISTIC CHARACTERISTICS OF HTPB - BASED
COMPOSITE ROCKET PROPELLANTS.

Panel 5: Hall 1. Central Military Club of Serbia

Defence Technologies as a Material and Technical Factor of Armed Combat

**Chair: Prof. Radovan Karkalić, PhD, Deputy Chair Assoc. Prof. Negovan Ivanković,
PhD**

- 1) Marko Krpić, THE ADSORPTION OF NITROBENZENE AS DERIVATIVES OF PRIMARY EXPLOSIVE COMPOUNDS ON COCONUT SHELL-DERIVED ACTIVATED CARBON.
- 2) Salem-Bilal Amokrane, VISION-BASED GUIDANCE SYSTEM FOR LANE FOLLOWING AND OBSTACLE AVOIDANCE USING MONOCULAR CAMERA.
- 3) Mirjana Krstović, INFLUENCE OF MAGNESIUM POWDER MORPHOLOGY ON THE ENERGETIC PERFORMANCE OF ISOPROPYL NITRATE-BASED THERMOBARIC FORMULATIONS.
- 4) Vanja Gujaničić, MODERN TRENDS IN THE DEVELOPMENT OF BIOPROTECTIVE MATERIALS WITH A FOCUS ON THEIR APPLICATION IN PROTECTION AGAINST THE BIOLOGICAL AGENTS.
- 5) Katarina Janković, MODERN TECHNOLOGIES FOR ENHANCING THE COMBAT CAPABILITIES OF ARTILLERY COMBAT SYSTEMS
- 6) Vaibhav Bisht, CONVENTIONAL LATHE MACHINE AND ITS DYNAMIC RELIABILITY MEASURES.
- 7) József Gyarmati, POTENTIAL APPLICATIONS OF DIFFERENT 3D PRINTING TECHNOLOGIES IN MILITARY LOGISTICS.
- 8) Ivana Janković, INFLUENCE OF SURFACTANTS WITH SOLVOTHERMAL SYNTHESIS OF HEMATITE (α -Fe₂O₃).