

Session Program

25–26 Jun 2026



International Conference on Secure Systems Design and Technology Development (SysTechDev 2026)

Poster session

"Vasil Levski" National Military University
Veliko Tarnovo, Bulgaria

Thursday 25 June

12:05

Poster session: Poster session I

Session | Location: 1st floor hall | Conveners: Yanitsa Boyanova, Desislava Petrova

12:05–12:08 **Turning innovation into a product concept**

Speaker

Prof. Desislava Petrova

12:08–12:11 **Methodology for Performing a Measurement System Analysis with Four Operators**

Speaker

Kliment Georgiev

12:11–12:14 **Laser polished stainless steel use in food industry, a review**

Speaker

Arturs Abolins

12:14–12:17

SYNTHESIS IMPACT PROTECTION IMPLEMENTED IN A PARTICULAR FACILITY THROUGH FRICTION DAMPERS

Speaker

Marin Marinov

12:17–12:20 **Methodology for testing bearing by the damping oscillation method**

Speaker

Kliment Georgiev

12:20–12:23 **Automated Loading and Unloading of CNC Vertical Milling Centers**

Speaker

Penko MITEV

12:23–12:26 **ANALYSIS OF OPTIMAL SHAPE OF CAM MECHANISM WITH ROLLER ROCKER**

Speakers

Ivan Tashev, Mr Kiril Lengerov

12:26–12:29 **Evaluation of the performance of classification algorithms in the QGIS system**

Speaker

Prof. Peter Grabusts

12:29–12:32 **A methodology for the Strategic Defense Review and its governance system. (Prototype)**

Speaker

Ivo Radulov

12:32–12:35

Human–AI Collaboration in Secure System Development: Decision Processes and Organizational Implications

Speaker

Mr Boris Gramchev

12:35–12:38

Multimodal Approach to Teaching English as a Factor in Improving Engineering Students' Research Skills**Speaker**

Nataliia Saienko

12:38–12:41

ENERGY COST PRESSURE, AGRICULTURAL INPUT PRICES AND FARM ECONOMIC RESILIENCE IN SELECTED MARKET FARM TYPES: COMPARATIVE EVIDENCE FROM BULGARIA AND THE EU-27**Speakers**

Ivan Byanov, Dr Nevena Byanova

12:41–12:44

Modeling and optimization of material flows in a section for machining in the presence of alternative technological processes**Speaker**

Silviya Salapateva

12:44–12:47

Possibilities for increasing the accuracy of active control in turning on CNC machine tools through adaptive accuracy control**Speaker**

Silviya Salapateva

12:47–12:50

Increasing the accuracy of machining by means of complex process management through active and adaptive control**Speaker**

Silviya Salapateva

12:50–12:53

The Role of Artificial Intelligence in Educational Technologies for the Purposes of Higher Education – Experimental Research**Speaker**

Zhaneta Tsoneva

12:53–12:56

Pitot Tube Simulation: A Key Tool for Real Engineering Applications in Marine Engineering and Mechatronics**Speaker**

Ms Cvetelina Velkova

12:56–12:59

WHY ECONOMIC SECURITY IS NATIONAL SECURITY. ECONOMIC DETERMINISM IN THE U.S. NATIONAL SECURITY STRATEGY 2025**Speaker**

Svetoslav Velkov

12:59–13:04

CRITICAL INFRASTRUCTURE RISK ASSESSMENT APPROACH**Speaker**

Mr Zarko Zdravkov

13:04–13:07

University Libraries in the Digital Ecosystem of Cultural Memory and Strategies for Digitization, Access, and Knowledge Sharing**Speaker**

Dr Trayana Petrova

13:07–13:12

The key role of SMEs in the European defence ecosystem with emphasis on Quantum technologies**Speaker**

Monika Panayotova

13:12–13:15

Commercialisation Potential for Scanners in Wood Processing. Cross-Cutting Optimizing Scanner for Aspen and Black Alder**Speaker**

Vladimirs Šatrevičs

13:15–13:18

Algorithm for finding optimal placement of objects in a machining section in the presence of alternative technological processes**Speaker**

Silviya Salapateva

13:18–13:21

Development of Cross-Cutting Optimizing Scanner for Aspen and Black Alder Boards**Speaker**

Vladimirs Šatrevičs

13:21–13:24

Laser marking on samples with chromium-nickel coating**Speaker**

Nikolay Dolchinkov

13:24–13:27

Analysis of models for estimating electricity losses in distribution networks**Speaker**

Misho Matsankov

13:50

14:25

Poster session: Poster session II

Session | Location: 1st floor hall | Conveners: Yanitsa Boyanova, Desislava Petrova

14:25–14:28

DETERMINATION OF OPTIMAL UNDERWATER CUTTING PARAMETERS FOR SHIP HULL STEEL OF SCIENTIFIC RESEARCH VESSEL RSV 421 "ST. ST. CYRIL AND METHODIUS"**Speakers**

Hristo Hristov, Prof. Momchil Manov

14:28–14:31

Hydrodynamic Jet Reaction Analysis for Marine Propulsion Control Units**Speaker**

Lyuba Gyurova

14:31–14:34

FROM CONVENTIONAL CAMOUFLAGE TEXTILES TO METAMATERIAL-BASED COMBAT PROTECTION: REVIEW

Speaker

Mrs Mariya Georgieva

14:34–14:37

MODELLING OF ACTIVE VIBRATION ISOLATION SYSTEM FOR AIR COMPRESSOR**Speakers**

Ivan Tashev, Kiril Lengerov

14:37–14:40

OPTIMIZATION OF STATISTICAL ANALYSIS FOR GEAR INSPECTION**Speaker**

Kiril Lengerov

14:40–14:43

IMPROVING THE ACCURACY OF A GEAR TRANSMISSION BY DIVIDING THE KINEMATIC ERROR**Speakers**

Kiril Lengerov, Ivan Tashev

14:43–14:46

Analysis of accuracy in different positioning schemes using statistical methods**Speaker**

Dr Hristo Yakimov

14:46–14:49

ENVIRONMENTAL, SANITARY AND HEALTH REQUIREMENTS IN THE DESIGN AND OPERATION OF RADIATION-HAZARDOUS FACILITIES**Speaker**

Dr Georgi Georgiev

14:49–14:52

An Integrated Concept for the Protection of Photographic and Electronic Equipment During Crime Scene Investigation Using a Risk-Oriented Protocol**Speaker**

Dr Georgi Georgiev

14:52–14:55

Determining the organizational level of digital maturity from the integration of AI in the service sector in the Republic of Bulgaria**Speaker**

Prof. Ivaylo Stoyanov

14:55–14:58

Operational art and cognitive warfare**Speaker**

Milko Stefanov

14:58–15:01

A conceptual model for risk management in hybrid threats and cognitive attacks**Speaker**

Milko Stefanov

15:01–15:04

Application of fuzzy logic in the prediction of air pollution in Berlin, Germany**Speaker**

Desislava Velinova

15:04–15:07

CYBERSECURITY THREATS IN INTELLIGENT TRANSPORT SYSTEMS: CHALLENGES AND SOLUTION PATHWAYS

Speaker
Mr Krasimir Lalov

15:07–15:10

Decision-Making Dynamics in Secure Software Development Teams: The Role of AI-Supported Systems

Speaker
Marina Marinova - Stoyanova

15:10–15:13

Investigation and modelling of surface roughness during milling of GJL-250 gray cast iron and S235JR steel using mixed ceramic tools

Speaker
Dr Hristo Radev

15:13–15:16

Eco-Leadership and Green Human Resource Management as Drivers of Environmental Security and Critical Infrastructure Resilience

Speaker
Prof. Valentin Vasilev

15:16–15:19

WEB TRAFFIC MANAGEMENT BY TECHNIQUES WITH SUPPORT VECTOR MACHINE, NAÏVE BAYES AND DISCRIMINANT ANALYSIS

Speaker
Georgi Georgiev

15:19–15:22

Numerical Modeling of Conjugate Heat Transfer Between Fluid and Solid Using ANSYS Fluent

Speaker
Lyuba Gyurova

15:22–15:25

Real-time network traffic capture and analysis using a deep neural network

Speaker
Mrs Angela Borisova

15:25–15:28

A Hybrid Probabilistic and FMEA-Based Model for Reliability and Fault Tolerance Assessment of AI-Based Security Systems

Speakers
Silvia Nikolova, Prof. Tsvetoslav Tsankov

15:28–15:31

Investigation and Identification of Ship Hull Steel Grade for Maintenance and Repair Procedures on Scientific Research Vessel RSV 421 "St. St. Cyril and Methodius"

Speakers
Prof. Momchil Manov, Prof. Hristo Hristov

15:31–15:34

Artificial Intelligence and Renewable Energy: Bibliometric Analysis

Speaker
Ventsislava Nikolova-Minkova

15:34–15:37

ON THE VIBRATIONS OF MULTI-CYLINDER MARINE DIESEL GENERATORS

Speaker
Mr Ivaylo Minchev

15:37-15:40

AI-Enhanced Detection of ARP Spoofing-Based Man-in-the-Middle Attacks in Local Area Networks

Speaker
Penka Markova

15:55

Friday 26 June

10:40

Poster session: Poster session III

Session | Location: 1st floor hall | Conveners: Yanitsa Boyanova, Desislava Petrova

10:40–10:43

Physical Vulnerability of Cyber Systems: Analysis of Incidents, Risk Factors and Security Strategies

Speaker

Nikolay Penev

10:43–10:46

Intelligent production and business processes: application in the mechanical engineering enterprises of Northeastern Region, Bulgaria

Speaker

Siyka Demirova

10:46–10:49

Empirical Study of Incident Response Practices for Personal Data Breaches in Bulgarian Organizations

Speaker

Prof. Martin Zahriev

10:49–10:52

Investigation of the Influence of Multi-Walled Carbon Nanotubes and Amorphous Carbon on the Mechanical Properties of Thermosetting Polymers

Speaker

Boyan Dochev

10:52–10:55

Study of the Influence of Tire Air Pressure on Natural Frequencies of a MacPherson Suspension

Speakers

Krasimir Ambarev, Stiliyana Taneva

10:55–10:58

BENCHMARKING FOR INTEGRATION OF ARTIFICIAL INTELLIGENCE IN STRATEGIC FIRM MANAGEMENT

Speaker

Prof. Neli Nikolova

10:58–11:01

3D and Line Scanning Camera System Concept in Real-Time Wood Processing

Speaker

Vladimirs Šatrevičs

11:01–11:04

A SURVEY ON CYBERBULLYING IN SMALL AND MEDIUM- SIZED HI-TECH ENTERPRISES IN THE REPUBLIC OF BULGARIA

Speaker

Ivaylo Stoyanov

11:04–11:07

Development of a 3D and Line-Scanning Camera for Automatic Wood Defect Marking

Speaker
Vladimirs Šatrevičs

11:07–11:10

Investigation of Differences in Light Transmission in Translucent Materials Used in Additive Manufacturing

Speakers
Mr Atanas Radulov, Mr Mario Dechev, Mr Teodor Demirev

11:10–11:13 **Surface Modification of Steel 1.2343 (EN ISO 4957) by Ion Nitriding**

Speaker
Desislava Dimova

11:13–11:16 **Wear resistance of medium alloyed tool steels after single-component surface enrichment**

Speaker
Beata Vlahova

11:16–11:19

Influence of strength characteristics on the technological parameters of the boroaluminizing process

Speaker
Beata Vlahova

11:19–11:22

Lightweight Comparative Evaluation of Quantum and Hybrid Quantum-Classical Machine Learning Models for Intrusion Detection

Speaker
Genadiy Gospodinov

11:22–11:25

An integrated simulation model for maritime cybersecurity: A comparative research analysis approach

Speakers
Ekaterina Dyankova, Dilyana Dimitrova

11:25–11:28

Automated Vulnerability Assessment in Windows Active Directory and Oracle Database Environments Using PowerShell and SQL*Plus

Speaker
Vasil Slavyanov

11:28–11:31

A Scalable Reliability Estimation Algorithm for Complex Computer Networks under Dynamic Conditions with AI-based Extensions

Speakers
Silvia Nikolova, Daniel Denev

11:31–11:34

Electronic evidence in criminal and civil proceedings: technologies, challenges and perspectives

Speakers
Prof. Sandra Kaija, Prof. Inga Kudeikina

11:34–11:37 **Tensile strength of copper alloyed structural powder steels**

Speaker
Beata Vlahova

11:37–11:40

An Optimized Model for CPU Load Evaluation in the Execution of Code Structures and Script-Based Algorithms

Speakers
Valentin Atanasov, Daniel Denev

11:40–11:43

Efficient and Trustworthy Anti-Corruption AI: Leveraging Model Pruning for Secure Deployment in Critical Systems

Speaker
Tamara Ristovska

11:43–11:46

Performance and Resilience Analysis of GRE over IPsec Tunnels in Dynamic Routing Networks

Speaker
Penka Markova

11:46–11:49

A Conceptual Model for Information Security Assessment in Judicial Information Systems Based on Risk and Regulatory Requirements

Speaker
Mr Nikolay Koev

11:49–11:52

Analysis of Software and Organizational Solutions for Supporting Innovation Management in Industrial Enterprises in the Context of Industry 4.0

Speaker
Daniela Toneva

11:52–11:55

Development of a Methodological Framework for Integrating Intelligent Technologies in Engineering Innovation Management

Speaker
Daniela Toneva

11:55–11:58

ARTIFICIAL INTELLIGENCE IN LOGISTICS: ADOPTION PATTERNS, PERFORMANCE EFFECTS, AND MARKET STRUCTURE

Speaker
Siyka Demirova

12:20

13:30

Poster session: Poster session IV

Session | Location: 1st floor hall | Conveners: Desislava Petrova, Yanitsa Boyanova

13:30–13:33

Vulnerability Assessment of Wild Medicinal and Aromatic Plants Along the Bulgarian Black Sea Coast using Rapid GIS-Based Model

Speaker
Stoyan Vergiev

13:33–13:36 Use of mobile autonomous systems to control pollution of continental water bodies**Speaker**

Nikolay Dolchinkov

13:36–13:39 Applying a Heuristic Approach to Time Optimization in a Grid Schedule**Speaker**

Irena Petrova

13:39–13:42**RESEARCH ON THE MACRO ELEMENTS OF THE MARKETING ENVIRONMENT OF COMPANIES BY INDUSTRY****Speaker**

Prof. Tsanko Stefanov

13:42–13:45**INTEGRATION OF DIGITAL AND ARTIFICIAL INTELLIGENCE SOLUTIONS IN MENTAL HEALTHCARE****Speaker**

Vihra Dimitrova

13:45–13:48 RESEARCH ON THE EFFECTS OF SPECIFIC RADIONUCLIDES ON HEALTH**Speaker**

Nikolay Dolchinkov

13:48–13:51**Reduction of the specific activity of radioactively contaminated soil using the high-pressure hydro-cleaning method****Speaker**

Prof. Marufjan Musaev

13:51–13:54**COMPUTER VISION CAPABILITIES FOR ORTHOPHOTOGRAMMETRY AND 3D TERRAIN MODELING****Speaker**

Georgi Komitov

13:54–13:57**NON-DESTRUCTIVE EVALUATION OF ION-NITRIDED AND CARBONITRIDED LAYERS ON BH11 AND D2 TOOL STEELS: EDDY CURRENT TESTING AND BARKHAUSEN NOISE METHODS****Speaker**

Mr Viktor Georgiev

14:00–14:03 Human Capital Development in Wartime and Post-War Periods Using Artificial Intelligence**Speaker**

Oksana Voloshyna

14:03–14:06**Opportunity to increase the competitiveness of the industrial enterprise and transition to Industry 4.0 through the implementation of business projects from the European Structural and Investment Funds****Speaker**

Siyka Demirova

14:06–14:09 Integrated risk assessment model for cyber threats to critical infrastructure

Speaker
Kostadin Trifonov

14:09–14:12

ASSESSMENT OF THE APPLICABILITY OF INTERNATIONAL FRAMEWORKS AND STANDARDS FOR CYBERSECURITY AS A BASIS FOR BUILDING A CLASSIFICATION MODEL IN THE “SECURITY AND DEFENCE” SECTOR

Speaker
Dr Atanas Nikolov

14:12–14:15

Generalized Net Model of the Disaster Protection Assessment Process Using Artificial Intelligence

Speaker
Mr Svilen Neykov

14:15–14:18

Water Resources Exploitation in Bulgaria: A Water Security Perspective

Speaker
Desislava Dimitrova

14:18–14:21

Multifactorial study of the influence of an anomegator on oil on the change in the tribotechnical parameters of the friction pair

Speakers
Mr Evgeni Kehayov, Georgi Komitov

14:21–14:24

Organizing and conducting underwater search and rescue operations for victims

Speaker
Nikolay Dolchinkov

14:24–14:27

Expectations and opportunities for AI-enabled systems application in the context of military communications and cybersecurity

Speaker
Emil Ivanov

14:27–14:30

Environmental security and marine ecosystem protection: addressing regulatory ambiguities in Bulgaria

Speaker
Miroslava Robinson

14:30–14:33

DESIGN AND SCENARIO DEVELOPMENT OF A MARITIME CYBERSECURITY TRAINING SIMULATION PLATFORM

Speakers
Ekaterina Dyankova, Dilyana Dimitrova, Evgeni Andreev

14:33–14:36

Analysis of Braking Deceleration and the Efficiency of Automotive Braking Systems Using MATLAB

Speaker
Yuliy Petrov

14:36–14:39

Ground operational picture improvement through direct georeferencing from an unmanned aerial system

Speaker
Venelin Rashkov

14:39–14:42

Integrating Bulgarian National Identity into Sustainable Fashion Design through Digital Technologies

Speaker
Mrs Desislava Ivanova

14:42–14:45

METHODS FOR DATA ARCHIVING AND RECOVERY USING ARTIFICIAL INTELLIGENCE

Speaker
Elena Shtereva

14:45–14:48

GENERALIZED NET MODEL OF THE E-LEARNING PROCESS

Speaker
Ms Daniela Mirtcheva-Ivanova

14:48–14:51

RESEARCH ON THE MICROELEMENTS OF THE MARKETING ENVIRONMENT OF ENTERPRISES FROM DIFFERENT INDUSTRIES

Speaker
Prof. Tsanko Stefanov

14:51–14:54

Digital Transformation of the Bulgarian Rose in Sustainable Fashion Design through Specialized Machine Embroidery Software

Speaker
Mr Nikolai Tranchev

14:54–14:57

Improving disaster, accident, emergency and crisis management systems in Bulgaria

Speaker
Dr Viara Zhekova

14:57–15:00

Secure Cross-Border Innovation Clusters in Industry 4.0: A Model and Empirical Study of the Burgas–Edirne Region

Speaker
Sibel Ahmedova

15:00–15:03

HYBRID PLASMA–SOL-GEL TECHNOLOGIES FOR FLAME RETARDANCY AND NIR CAMOUFLAGE OF MILITARY TEXTILES: REVIEW

Speaker
Ms Rumyana Milyovska

15:03–15:06

Machinability of short rotary parts made of improveable steels with robotic feeding

Speaker
Beata Vlahova

15:06–15:09

Analysis of the Human Body Positioning in Disaster Remediation

Speaker
Svilen Neykov

15:09–15:12

Mathematical Modeling of Safe Vehicle–Pedestrian Distance with Interactive Visualization

Speaker
Yuliyana Petrova

15:12–15:15

Radiogenic heat production in the Earth's crust of Bulgaria: The dominant role of the Rhodope Massif

Speaker
Yanitsa Boyanova

15:15–15:18

ASSESSMENT OF THE DIGITAL MATURITY OF ESG REPORTING IN THE CONTEXT OF DIGITALIZATION

Speaker
Kiril Luchkov

15:18–15:21

Energy security as an element of national security

Speaker
Nikolay Dolchinkov

16:00