

INTERNATIONAL CONFERENCE: TECHNOLOGICAL CHALLENGES TO SECURITY, DEFENSE & INNOVATIONS IN THE NEW DIGITAL AGE*

WORKING PROGRAMME

DAY I

Date: 26 April, 2024, Resident Place: Central Military Club, Sofia, Bulgaria

Start: 10:00 'clock, End: 18:00 o'clock BG Time (GMT +2:00 hours)

09:15 – 9:55 Registration of the Participants

10:00 – 10:15 *Welcome Addresses*

10:20 – 10:35 Digital Transformation in the Post-Information Age,
Zlatogor Minchev, Institute of ICT,
Bulgarian Academy of Sciences/ AOR "Atlantic"

10:45 – 11:05 Digital Transformation Governance in NATO and
NATO 1st Solution, Velizar Shalamanov, Institute of ICT,
Bulgarian Academy of Sciences

11:10 – 11:25 Governance of the Technological Innovation in the
Bulgarian Armed Forces, Todor Tagarev,
Institute of ICT, Bulgarian Academy of Sciences

11: 25 – 11:40 *Coffee Break*

11:45 – 12:00 Hybrid Wars, Propaganda and Fake News – Impact Methods and
Counteraction, Yulian Hristov,
Institute of ICT, Bulgarian Academy of Sciences

12:05 – 12: 20 Disinformation in Bulgaria: Tools Monitoring and Counteraction,
Ivan Lalev & Velizar Shalamanov,
Institute of ICT, Bulgarian Academy of Sciences

12:25 – 12:40 Cybersecurity Regulations & Standards – Best Practices and the Future
Challenges of the Cybersecurity Regulations Involvement,
Rachel Menda-Shabat-More, Zlatogor Minchev, Winbond, Israel

*12:40 – 13:00 Digital Transformation Present & Future Socio-
Technological Transcendents (Wrap-up Discussion),
Velizar Shalamanov, Bulgaria*

13:00 – 14:00 *Lunch Break*

14:05 – 14:15 Safety, Security and Artificial Intelligence: AI against AI Scenarios and von Neumann Paradigm-based Solutions, Vyacheslav Kharchenko, Oleg Odarushchenko, National Aerospace University, KhAI, RPC Radiy, Ukraine

14: 20 – 14:35 Towards Application of GIS and Augmented Reality for Providing Clearance and Route Planning in Dangerous Spaces, Oleg Oliinyk, Ihor Kliushnikov, Vyacheslav Kharchenko, National Aerospace University, KhAI, Kharkiv, Ukraine

14:40 – 14:55 Passive Methods for Early UAV Detection, Stiliyan Georgiev, Visteon, USA

15:00 – 15:15 Comparison of two target detection algorithms for MSRS, Kiril Alexiev, Dimo Dimov, Institute of ICT, Bulgarian Academy of Sciences

15:20 – 15:40 *Cofee Break*

15:45 – 16:05 Dynamics of Multifractal Parameters of Military Expenditures of USA and the Dow Jones Industrial Average Index, Peter Dojnow, Institute of ICT, Bulgarian Academy of Sciences

16:10 – 16:25 Ransomware Reversing in Real-time for Understanding Attack Vectors Using Graphs, Stefan Tafkov, Institute of ICT, Bulgarian Academy of Sciences

16:30 – 16:50 Private Schemes for Cybersecurity Certifications: an Experimental Modeling & Forecasting for Success, Rachel Menda-Shabat-More, Zlatogor Minchev, Winbond, Israel & Institute of ICT, Bulgaria

16:55 – 17:10 Behavioural Identification based on Biometrics Dynamics, Peter Dojnov, Kiril Alexiev, Institute of ICT, Bulgarian Academy of Sciences

17:15 – 18:00 *Digital Transformation Technological Drivers, Innovations & Security Challenges (Wrap-up Discussion), Zlatogor Minchev, Bulgaria*

18:30 – 20:00 *Networking Cocktail*

DAY II

Date: 27 April, 2024, Resident Place: Central Military Club, Sofia, Bulgaria

Start: 10:00 o'clock, End: 17:10 o'clock BG Time (GMT +2:00 hours)

10:00 – 10:15 Cognitive War as a Threat to Institutions in Democratic Societies, Evgeni Krastev, AOR "Atlantic"

10:20 – 10:35 Redefining the Future of the Intelligence Community, Max Kilger, USA

- 10:40 – 10:55 Opportunities and Prospects for the Use of Marine Unmanned Aerial Vehicles for Military Purposes, Dragomir Krastev, Naval Academy, Nikola Vaptsarov, Varna
- 11:00 – 11:15 Comparative Assessment of Machine Learning Algorithms & Neural Networks for Dark Web Threat Detection, Velizar Varbanov, Kalin Kopanov, Institute of ICT, Bulgarian Academy of Sciences
- 11:20 – 11:35 *Coffee Break*
- 11:40 – 11:55 HPC & Supercomputing for Security, Emanuil Atanassov & Aneta Karaivanova, Institute of ICT, Bulgarian Academy of Sciences
- 12:00 – 12:15 Construction 4.0 – A New Paradigm for Resilience, Alexandru Georgescu, ICI Bucharest, Romania
- 12:20 – 12:35 Smart e-Government & Public Health Innovations, Komlen Lalovic, University Educson, Serbia
- 12:40 – 12:55 Information System for Monitoring Critical Infrastructure in a Network-Centric Environment, Evgeni Hubenov, Zoya Hubenova, Space Research and Technology Institute, Bulgarian Academy of Sciences
- 13:00 – 14:00 *Lunch Break*
- 14:05 – 14:20 Application of Spatial SEIR Epidemic Models with Low Rate of Infected to Biological Counterterrorism Threat, Georgi Boyadzhiev, Institute of Mathematics & Informatics, Bulgaria
- 14:25 – 14:40 MythoReality & Security: The AI Perception Checker, Ludmil Duridanov, Dzhaneer Redzheb, Yana Doncheva, New Bulgarian University, Simeon Simoff, Sumreet Sandhu, Western Sydney University, Australia
- 14:45 – 15:05 *Innovations, Critical Infrastructure Protection & the Future of Allied Security (Wrap-up Discussion), Zlatogor Minchev*
- 15:10 – 17:10 *Afternoon Training Session: Multiperspective Foresighting of Future Security & Defense Transcendents (Table Top Exercise), Zlatogor Minchev & Stafan Tafkov, Institute of ICT, Bulgarian Academy of Sciences*

**The conference is encompassing multiple international views on the future digital transformation socio-technological effects, taking viable support from experts and researchers towards a proper understanding of the new digital society security & resilience achievement. Different security & defense risks, threats, divides, gaps & opportunities are referred to the overall future security landscape understanding. Accents will be given from technological, social and human transformational perspectives. The obtained analytical results from the working discussions & Table Top exercise are expected to enrich the future holistic understandings towards new security environment, providing a possibility for a more resilient and adaptable manner the future tangible and intangible transformational aspects. Event working languages are Bulgarian & English.*