CALL FOR PAPERS

INTERNATIONAL CONFERENCE

Human Systems Integration Approach to Cyber Security

28-29 September, 2015
Sofia, Bulgaria

Under the patronage of the Minister of Defence
of the Republic of Bulgaria Mr. Nikolay Nenchev

CO-ORGANIZERS:

• G. S. Rakovski National Defense College, Defense Advanced Research Institute (DARI)

• Armed Forces Communications and Electronics Association (AFCEA) International, South East European Region, AFCEA Sofia Chapter

• NATO Science and Technology Organization (STO), Human Factors and Medicine Panel Task Group 259 Human Systems Integration Approach to Cyber Security

COVERENCE VENUE:
Central Military Club, 7 Tsar Osvoboditel Blvd., 1000 Sofia, Bulgaria

BACKGROUND AND JUSTIFICATION:
Cyber domain nowadays is and will continue to be a very important part of the battlespace. It can be argued that most future operations will at least start in cyberspace and they will most probably be conducted within it during the conflict, increasing the importance of having control over cyber space.

While technological solutions are being developed in response to cyber, there is an increasing awareness that besides the technical approaches the role of human performance and decision making in cyber security is also critical for increasing the effectiveness of response. The human factor may be a system's "weakest link", but may also be a powerful resource to detect and mitigate the emerging threats. The scope of human factors involved in cyber domain and the absence of a consistent theory may hinder a focused development of integrated approaches to cyber security and defense.

The challenge is to minimize the risks of cyber as a threat. For that reason we need a better understanding how psycho-social, cultural, conceptual and organizational dimensions impact the cyber space as an Alliance-wide and common approach to cyber defense capabilities development. The proper solution is implementation of Human Systems Integration (HSI) philosophy to incorporate technology, software, organizational processes and people as a system.

OBJECTIVES:

- To promote cooperative HSI approach to study the complex phenomenon of cyber security by covering diverse dimensions such as human factors, organizational processes, technology and software developments, etc.;
- To study specific issues related to selection, education, training and retention of cyber force, and to identify the spectrum of Knowledge, Skills and Abilities that IT experts need for efficient performance;
- To present and discuss methodologies to measure organizational cyber security awareness and security posture in defense organizations;
- To formulate possible approaches to improve resilience after cyber attacks;
- To present and discuss human factors support tools for enhancing individual and group cyber security sensitivity.

TOPICS TO BE COVERED:

- Recruitment, training, and maintenance of the cyber force;
- Application of human performance and cognitive modelling for identification of potential cyber security vulnerabilities;
- Improving human-machine interfaces (reducing complexity of security systems; trust and openness in networked information and network-based interactions, etc.).
- Organizational processes and tools for increasing cyber security awareness, overall competence and cyber resilience;
- Capabilities that are essential for organizational resilience to cyber threats: respond to events, monitor critical developments, anticipate future threats, and learn from past experiences, etc.;

- Effective protection mechanisms in the network, especially those that focus against being negatively influenced;
- Ethics of using cyber systems to influence operator and user behavior;
- Vulnerabilities in the human aspects of cyber systems;
- The role of safety culture in relation to cyber security;
- Best practices and short-falls for cyber security policies and targeted Education and Training (E&T) to improve security of human behavior.

WORKING LANGUAGES:
English and Bulgarian

RECOMMENDED ACCOMMODATION: Grand Hotel Sofia, 1 Gurko str., 1000 Sofia, Bulgaria (single/double superior room 90/116 euro per night, breakfast and tax included)

POCs:

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DEADLINES:

Application via e-mail to both POCs (topic and abstract of the paper, 120 words max, contact coordinates) – 15th July 2015;

- Confirmation of accepted papers – 30th July 2015;
- Papers due in English – 15th September 2015;
- Publication of the preliminary program on the websites of G. S. Rakovski National Defense College and AFCEA Sofia Chapter – 20th September 2015;
- Discount price for hotel booking – 1st August 2015;
- Publication of the conference proceedings in English – 20th December 2015

THERE IS NO CONFERENCE FEE FOR THE PARTICIPANTS FROM THE MILITARY ORGANIZATIONS, STATE SERVANTS AND ACADEMIA

Additional information regarding the preparation of the conference and cultural events for the accompanying persons will be published regularly on the websites of G. S. Rakovski National Defense College http://rnda.armf.bg/ and AFCEA Sofia Chapter http://www.afcea-bg.org/