

## ACTUAL TRENDS IN ELINT OBJECTS SIGNAL CLASSIFICATION

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**Abstract:** The main task of electronic intelligence is to detect, measure and analyze parameters, identify and track electronic objects that works with pulse modulation of signals. Electronic intelligence objects identification means the process in which every electronic intelligence object is assigned to its appropriate class, type, or model. The lower level of the electronic intelligence objects identification is ensured in the classification process. A further part of this article will be devoted to analyzing current trends in the electronic intelligence objects classification.

**Keywords:** electronic intelligence; intrapulse modulation; radar signal processing; signal analysis; signal processing algorithms.

## INTERNET OF THINGS - ENVIRONMENTAL SECURITY VECTOR

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**Abstract:** Aim of this paperwork is to provide an outlook on current security issues in the field of Internet of Things (IoT). IoT technology is rapidly spreading technology not only within industrial area. In the first part of the article, we focus on IoT design and conditions that influence its design on protocol level as we see it today. To highlight the differences, we use comparative approach in order to compare IoT with conventional Internet. The second part is focused on different types of attacks analysis in IoT environment. Finally, we introduce Attack vector in IoT environment and coincident product-life security matrix as static base for further research.

**Keywords:** Attack vector; Internet of Things; traditional Internet; machine to machine; cyber-physical space; cyberthreat; fog computing; cloud computing.

## CRITICAL INFRASTRUCTURE PROTECTION IN THE CONTEXT OF THE SECURITY NETWORKS

Daniel ROMAN

**Abstract:** Security is one of the reference elements of an entity, regardless of its nature and of how it is reported at the micro- or macro-dimensional level. Due to the complexity of the reference environment against which the state of security is defined in a contemporary context, this poses a major challenge to specialists in all areas: political, military, social, economic, information, infrastructure and environment. Therefore, identifying those viable solutions for preventing, counteracting or eliminating the effects of a crisis, depending on its nature, may only be possible by understanding the "operating mechanisms" of each area. Following the dynamics and describing the interaction relationships of the responsible social systems can be one of the methods of managing a potential complex crisis that may occur at a given time. In this article, we have intended to argumentatively support the need for an integrated approach to the security of the identified "pillar systems" by focusing on critical infrastructure protection and designing, planning and deploying military actions. For the first time, based on integrating the dynamics of the risks and the vulnerabilities of the social systems, we have argumentatively developed the concept of network interaction. By monitoring and analyzing the essential descriptive parameters of each security field, we can decipher their security states due to the identified network connections, and moreover, we can anticipate a potential crisis or the possible occurrence of a major negative event.

**Keywords:** security; critical infrastructures; military action; crisis; vulnerabilities; collaborative workflow; negative event.

## **RISK ASSESSMENT FOR CRITICAL INFRASTRUCTURE IN THE CONDITIONS OF UKRAINE**

Serhii IVANIUTA

**Abstract:** In the article the character of changes in natural and man-made threats for critical infrastructure in the conditions of Ukraine are investigated. Risk assessment for critical infrastructure from emergency situations in Ukraine with regard to the European Union approach is provided. Priorities for risk reduction of emergencies of natural and man-made origin for critical infrastructure protection in Ukraine are recommended.

**Keywords:** critical infrastructure; risk; threats; likelihood; emergency situations; consequences, priorities.

## **THE EFFECTS OF TWO DIFFERENT PHYSICAL TRAINING PROGRAMS ON MOVEMENT PERFORMANCE OF PROFESSIONAL SOLDIERS**

Roman MARKOVIČ

**Abstract:** The level of physical fitness is checked annually for each professional soldier by an annual exercise performance test. At work, we investigated the impact of two different physical fitness programs on the performance of professional soldiers in the annual physical fitness tests. In the overall assessment of the annual physical fitness tests, Group 1 improved from 147 points on the input measurement to the final 183 points in the output measurement, improved by 36 points (12 % increase in movement performance). Group 2 improved by 15 points from 155 to 170 points (5 % increase in movement performance). Based on the results, we can state that the proposed comprehensive motion training program is an effective and appropriate means of developing the movement performance of professional soldiers and we recommend that it be put into practice.

**Keywords:** movement program; professional soldier; movement performance; movement abilities; physical fitness tests.

## **THE TERRITORIAL DEFENCE FORCES AS THE FIFTH TYPE OF THE ARMED FORCES OF THE REPUBLIC OF POLAND**

(Genesis and political background of their formation as well as attitude to them among society)

Katarzyna DOJWA-TURCZYNSKA

**Abstract:** In 2015, political alternation at a central level took place in Poland. Conservative right-wing party Law and Justice (Polish: PiS) emerged as the winner of the parliamentary elections. A range of changes followed. One of them was establishment of the fifth type of the Armed Forces of the Republic of Poland - the Territorial Defence Forces. They are designed to aid the regular army in situations of military crises and threats.

**Keywords:** government; ruling; Armed Forces of the Republic of Poland; Territorial Defence Forces; public opinion.