

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ**  
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**«ПОЛТАВСЬКА ПОЛІТЕХНІКА ІМЕНІ ЮРІЯ КОНДРАТЮКА»**

**ЗБІРНИК НАУКОВИХ ПРАЦЬ**  
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**«ЕЛЕКТРОННІ ТА МЕХАТРОННІ СИСТЕМИ:**  
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## **ANALYSIS OF MODERN MEANS OF ELECTROMAGNETIC INFLUENCE**

Electromagnetic means are used to deliberate deterioration of the characteristics of radio-electronic devices, up to their complete failure, by exposure to on the elements of these devices by an electromagnetic field. Facilities electromagnetic influence can be divided into force (high power electromagnetic influences) and intellectual.

High power electromagnetics, HPEM - a general term characterizing an area of activity or technology associated with the creation of intense electromagnetic fields or conducted voltages and currents that could damage electronic systems or disrupt their functioning.

All in all in case of high power levels of electromagnetic influences exceed the levels of electromagnetic interference acting on systems under normal operating conditions (for example, exceed 100 V/m or 100 V).

With this effect, the main effect there are significant interferences in the circuits of devices leading to their physical failure due to elemental damage bases.

In some cases, the electromagnetic field strength may not be enough to destroy the element base, but the attacked the device during the period of exposure may significantly deteriorate its performance characteristics up to blocking of work, but after removing the influencing field completely restores operation, possible using the operator [1, 2]. Force means electromagnetic influence can be divided into means narrowband exposure and broadband means (ultra-wideband) exposure.

### **LITERATURE:**

1. Kelly-Detwiler, P. (July 31, 2014) *Failure to Protect U.S. Against Electromagnetic Pulse Threat Could Make 9/11 Look Trivial Someday.*

2. *Research Focused On Improving the Electrical Grid, The Virginia Engineer, vol. LXI, no. 4 (April 2012), pp. 4-6.*

## **АНАЛІЗ СУЧАСНИХ ЗАСОБІВ ЕЛЕКТРОМАГНІТНОГО ВПЛИВУ**

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