



# Proposals for cooperation of General Electrical Engineering Department of National technical university «Kharkov polytechnic institute»

# **«General Electrical Engineering» department**

**Head of department – prof. Danko V.G.**

**E-mail: vdankog@gmail.com**

**Areas of research:**

**The improving of the energy efficiency of Linear Impulse Electric Motors**

**The Department of General Electrical Engineering NTU "KhPI" is conducting research in the field of Linear Electric Motors for various applications (transport, IT systems, technological applications, information security, gravimetry, etc.). In this area the experience in modeling, design, experimental research in the field of Linear Impulse Electrical Motor have been accumulated.**

# **«General Electrical Engineering» department**

## **Participation in state scientific projects**

**«Development means improving the efficiency of linear accelerators shock electromechanical and power devices»  
2015-2016**

**«Development measures for highly efficient electromechanical linear pulse converters scientific and industrial» 2013-2014**

**«Development of the scientific and technological solutions to improve the efficiency of linear electromechanical devices impact» 2011-2012**

## **Articles in the editions included in database Scopus**

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16. Bolyukh V. F. Influence of the duration of exciting-winding and armature currents on the effectiveness of an inductive-dynamic motor // Russian electrical engineering. – 2001. – Vol. 72, Part 11. – P. 37–43.

17. Bolyukh V.F. The influence of inductively coupled circuits on the excitation of a cryoresistive winding from a capacitive energy store // Electrical Technology Russia. – 2002. – № 1. - P. 38-51.
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# **«General Electrical Engineering» department**

## **Proposals for further joint research**

**Priority area field of research - energetic and energy efficiency.**

**The energy efficiency and specific parameters improving of Linear Impulse Electric Motors (LIEM), designed for scientific and industrial applications.**

**The research is focused on the improvement of the existing and development of the new processes and technologies. On the basis of the developed LIEM the energy efficiency of many technical systems and technologies can be increased, which use the mechanical, hydraulic, pneumatic and detonation drives.**

**The problem of the development of scientific and technical means to improve the energy efficiency, enhance the specific performance and reduce of the magnetic field leakage of the LIEM is relevant.**