

Current state of the development of MSTU “STANKIN” and department of High-Efficiency Processing Technologies of Materials

At present, MSTU STANKIN is the leading scientific and educational center of the Russian Federation in the field of science-intensive technologies of machine-building production.

The basic principles of research activity of MSTU STANKIN are:

- The principle of integrating scientific and educational activities as the executors of scientific projects are not only the scientific and pedagogical staff of the University but also students, graduate students and doctoral students; Also, the results of scientific activity are quickly introduced into the educational process;
- The principle of completeness of development as conducting fundamental and exploratory research to create scientific foundations and scientific and technical reserve for the subsequent development of fundamentally new solutions aimed at increasing the competitiveness of machine-building production.

One of the main achievements of recent years is the development in STANKIN of innovative manufacturing methods, measurements, and materials by the Chair of High-Efficiency Processing Technologies of Materials (VTO).

Today, the primary goal of the VTO chair is to develop and increase the effectiveness of fundamental, applied research and experimental developments in the field of technologies for obtaining and processing new materials and coatings for engineering purposes, improving the quality of education in the training of personnel for high-tech industries. The scientific team of the department has many years of experience in research and development in this field, developed infrastructure, and human resources.

A solid scientific team of scientists and high-qualified specialists was created during the years of the VTO chair work and existence, whose developments are now actively used in the different applications for the needs of the machining industry. The developed new technological processes and samples of modern equipment for surface treatment of products and coatings are introduced in some domestic and foreign engineering enterprises to increase the service life and operational reliability of critical products.

Only since 2009, the scientific and technical developments of the staff of the VTO chair have been awarded a lot of distinctions, prizes, and awards of various levels in the most prestigious competitions and exhibitions both in the Russian Federation and abroad.

The scientific group of the VTO chair is multiple winners of the most prestigious national scientific event as competition for the grants of the President of the Russian Federation for state support of the leading scientific schools of the Russian Federation in the field of knowledge “Engineering and Technical Sciences”.

The presence of well-developed infrastructure, highly qualified personnel and high level of scientific research of the studying department and laboratory of VTO chair in MSTU STANKIN are prerequisites for the successful creation of innovative production processes and progressive materials, and coatings for obtaining world-class results, ensuring Russia’s technological independence and early transition to the sixth technological order.

The most advanced achievements of MSTU STANKIN’s scientists in the field of innovative manufacturing methods, measurements and materials are presented in the current issue of the Journal.

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