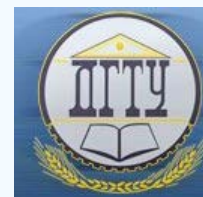


IN HONOUR OF THE SCIENTIST



21 June, 2020, professor Rudolf Anatolievich Neidorf, a remarkable scientist, engineer and organizer, Dr.Sci. (Engineering), died unexpectedly at the age of 76. He would have turned 76 years old 17 October.

Rudolf Anatolievich Neidorf was an expert in the field of automatic and automated systems, well-known in Russia and abroad. R.A. Neidorf embarked upon his scientific career at Novocherkassk Polytechnic Institute (SRSTU, Novocherkassk) as an expert in the automation of chemical technology processes, and he continued his activities at Rostov State Agricultural Academy and Don State Technical University (DSTU).

R.A. Neidorf's main area of expertise was the automatic control theory, in particular, development of the methodology for the structure synthesis of nonlinear automatic control systems. This is a complicated research area at the intersection of intuition, art and mathematics which requires nonstandard ideas and scientific courage to stand up for them. R.A. Neidorf's PhD and habilitational theses, monographs, scientific publications and scholarly papers, as well as the dissertations of many of his disciples, are devoted to the research in this area. A wide range of scientific interests of R. A. Neidorf included also tasks and methods of mathematical modeling, optimization, and information processing. R.A. Neidorf developed these problems together with his graduate students. The joint research results were recorded in the publications and manuals.

The results of the theoretical and R&D work of Rudolf Anatolievich were tested at the major Russian and foreign scientific conferences and introduced into production. One of the examples is the method of experimental building of mathematical models of highly nonlinear systems proposed by R. A. Neidorf and a group of young scientists. The solution found application in the selection of structural elements of the MAAT transport system (Multibody Advanced Airship for Transport) (2012–2015). It was the basis for a scientific project on the theoretical underpinning of the method of experimental building of mathematical models and its implementation in scientific practice under a grant from the Russian Foundation of Fundamental Research.

R.A. Neidorf made a significant contribution to the development of engineering education in Russia, the improvement of the educational process, the training of engineering and scientific top-qualification brainpower. Two Dr.Sci. and more than twenty Cand.Sci. in the field of mathematical modeling, control theory, and operation research methods, trained by Rudolf Anatolievich, work at the universities and enterprises of the Rostov region.

R.A. Neidorf organized the training of engineering personnel majoring in "Management and IT in Engineering Systems", scientific brainpower majoring in "Information Systems Software and Administration" and "Software Engineering" in DSTU.

In 2002–2005 and 2006–2013, R.A. Neidorf was Head of the "Information and Control Systems" Department, Rostov State Agricultural Academy, and "Computer and Automated Systems Software" Department, DSTU. He made a great contribution to the scientific activities of the higher educational institutions, which later merged into a regional basic university, DSTU, and intensified R&D in the field of information control problems. R.A. Neidorf, in particular, developed optimization methods, control laws for various engineering systems, as well as search heuristic problem algorithms; he established the priority of R&D in this area.

At that time, he forged close links with the "Engineering Systems Control" Department, Kislovodsk Humanitarian Technical Institute, and the "Automated Information Systems" Department, Ukhta State Technical University, and organized visiting professorship. Lately, he had done a lot of work at the Center for Scientific Competence while developing methods for training top-qualification brainpower.

Since 1996, R.A. Neidorf headed the specialized Dissertation Board D.212.058.02. In 2010, he organized the annual seminar-conference “System Analysis, Management and Information Processing”. Rudolf Anatolievich was a member of two editorial boards: “Vestnik of Don State Technical University” and the collection of research papers of the seminar-conference organized by him. R.A. Neidorf was author and co-author of more than 500 scientific publications including 5 monographs (3 foreign ones), 12 textbooks and teaching aids, more than 70 patents and copyright certificates.

Not many people know that Rudolf Anatolievich was a poet and editor of the monthly *Ataman News*, author of 158 poetical compositions.