National Technical University
“Kharkov Polytechnic Institute“
Transport Engineering Faculty

“Information Technology & Systems of Wheeled and Tracked Vehicles”
Department named A.A. Morozov

“Information Technology & Systems of Wheeled and Tracked Vehicles” Department named A.A. Morozov

Speciality «Applied Machine-building»

Specialization «High cross-country ability vehicles»

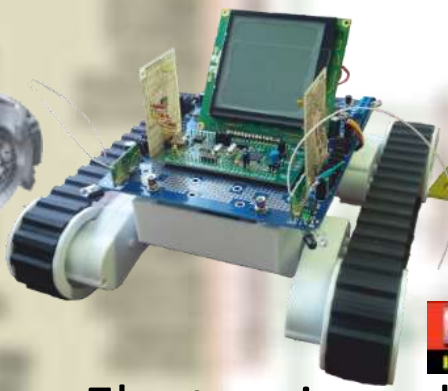
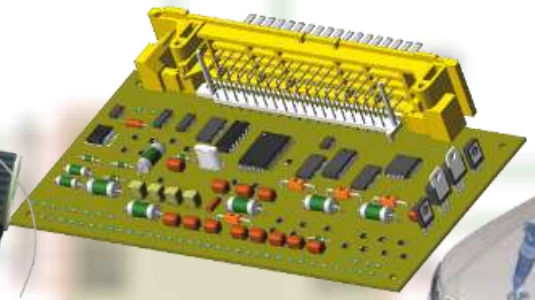
Qualification after education:

Bachelor of Mechanical Engineering

Master of Mechanical Engineering

“Information Technology & Systems of Wheeled and Tracked Vehicles” Department named A.A. Morozov

Speciality «Power industry, electrical engineering and electromechanics»

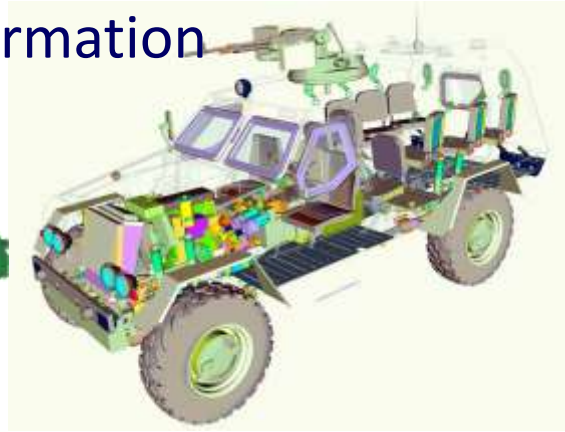

Specialization «Electronic and micropocessor-based systems of vehicles»

Qualification after education:

Bachelor of electromechanics **Master of electromechanics**


“Information Technology & Systems of Wheeled and Tracked Vehicles” Department named A.A. Morozov

Speciality «Computer science and nformation technologies»



SolidWorks

AUTODESK® INVENTOR®

Specialization «Computer-based designing of vehicles»

Qualification after education:

Bachelor of computer science

Master of computer science

“Information Technology & Systems of Wheeled and Tracked Vehicles” Department named A.A. Morozov

Direction of education

Graduate with specialization **«High cross-country ability vehicles»** prepared for the engineering design, organization, production, testing and research activities in the field of production of tracked and wheeled vehicles as the national economy, as well as special purpose.

The knowledge and expertise allows mechanical engineer specialist: drafting of technical specifications and design of parts, components, assemblies as a whole; solve problems operating of tracked and wheeled vehicles, identify design defects and deviations from the specifications; develop programs and test procedures of tracked and wheeled vehicles and units in laboratory and field conditions; organize a competent diagnosis and repair of tracked and wheeled vehicles in the national economy and in the army.

Perspectives of employability

Graduates with titled specialization can work in the fields of development, research, production, sale, operation, maintenance and repair of vehicles and special (military, road-building, etc.) chassis both wheeled and tracked. Outstanding graduates of the specialty plant reached the post of Director and Chief Designers industry leading design institutions.

“Information Technology & Systems of Wheeled and Tracked Vehicles” Department named A.A. Morozov

Direction of education

Graduate with specialization **«Electronic and micropocessor-based systems of vehicles»** prepared for the engineering design, organization, installation and commissioning, research, repair and diagnostic activities in the production and operation of the machines, which include units and microprocessor-controlled system . During training specialist receives: profound general theoretical training in basic and applied sciences; knowledge in the field of mechanics and electronics, practical skills in the creation of units and systems with microprocessor control; knowledge and skills to work on modern computer technology, in its application to computer-aided design and computer diagnostics of cars, cars for national economic and special purpose.

Perspectives of employability

Graduates of this specialization can work in the fields of development, research, production, sale, operation and maintenance and repairs as a separate microprocessor devices and components, as well as vehicles and special (military, road-building, etc.) chassis on the wheel and tracked, equipped with systems that are controlled by microprocessor unit.

“Information Technology & Systems of Wheeled and Tracked Vehicles” Department named A.A. Morozov

Direction of education

Graduate with specialization **«Computer-based designing of vehicles»** has the knowledge and skills in the field of programming and in the design of object - transport vehicles and special economic application. The knowledge and skills of engineer system analyst enables professionals to: organize design in design departments using powerful CAD software, to ensure their adaptation, configuration, administration, protection of information; independently solve design problems using powerful modern CAD; to train engineers design effective methods of working with modern CAD systems. The graduate has a broad career opportunities in the field of scientific, educational, managerial, organizational, informational and engineering.

Perspectives of employability

Graduates with this specialization can work in the fields of research and development of vehicles and any other mechanical systems using CAD. Qualification gives the graduates an opportunity to organize work on the project on to the bureau level enterprises and departments to select and establish the necessary HARD and SOFT-resources, at the same time provide shared access to the development and protection. Also graduates of this specialty receive the minimum necessary knowledge on the theory and construction of the objects of research and design.

"Information Technology & Systems of Wheeled and Tracked Vehicles" Department named A.A. Morozov

Basic special disciplines

Specialization «High cross-country ability vehicles»

Synthesis of planetary gears, the CAD in the design of tracked and wheeled vehicles, Design and calculation of wheeled and tracked vehicles. Automation and microprocessor technology in wheeled and tracked vehicles, ergonomics and habitability of wheeled and tracked vehicles. Mathematical models in computer calculations and research & development work of students. Theory of wheeled and tracked vehicles, operation and maintenance of machinery. Applied oscillation theory and Numerical methods in the calculations on the PC.

Specialization «Electronic and micropocessor-based systems of vehicles»

Microprocessor unit; Components of microprocessor systems (MPS) Reliability and diagnostics of electrical equipment; Installation and commissioning of electrotechnical systems; Design and calculation of MPS vehicles; Theory of vehicles; Hydraulics and gidropnevmoavtomatics of vehicles; Production technology and the reliability of MPS; Algorithms, hardware and software diagnosis of MPS; Computer diagnostics of microprocessor devices with machines and systems; CAD MPS of vehicles.

Specialization «Computer-based designing of vehicles»

Object-oriented programming; Fundamentals of system analysis; Architecture of computers, computer circuitry; System programming and operating systems; Organization of databases and knowledge; Computer networks, CAD of chassis for wheeled and tracked vehicles; Computer analysis of dynamics of machines; Integrated computer systems design and analysis; Mathematical models in designing of wheeled and tracked vehicles.

“Information Technology & Systems of Wheeled and Tracked Vehicles” Department named A.A. Morozov

Dmitriy Volontsevich
Professor,
Doctor of Science,
PhD
Head of Department

Staff:

Duschenko V.V.
Professor, Doctor of Science , PhD.
Lavrynenko S.N.
Professor, Doctor of Science, PhD.
Epifanov V.V.
Professor, PhD.
Kostjanik I.V.
Associate Professor, PhD.
Vorontsov S.N.
Associate Professor, PhD.
Pyleva T.K.
Associate Professor, PhD.
Sivyh D.G.
Associate Professor, PhD.
Istomin A.E.
Associate Professor, PhD.
Veretennikov E.A.
Associate Professor, PhD.
Lazarenko A.A.
Senior Lecturer, PhD.