



Development of mechatronic systems of parallel kinematics on hybrid direct-acting drives

Key areas of research:

- Analysis of possible structural and kinematic solutions and justification of the choice of the basic scheme of a parallel manipulator of a mechatronic system of movements on a six-coordinate direct-acting drive;
- Development of mathematical models for the kinematic and dynamic study of the executive mechanism of a parallel manipulator with six degrees of freedom;
- Algorithmization of mathematical models and their reduction to a modular segmented form and development of software based on them for simulation of a mechatronic system;
- Conducting a computer study in the MATLAB environment with verification of the simulation results;
- Verification of the proposed scientific ideas and solutions incorporated in the project and their implementation.

Mechatronic systems of movement on a direct-acting hybrid drive are primarily designed to create promising assembly and opto-mechanical equipment for micro- and nanoelectronics, as well as automation tools in other fields of technology.

Type of collaboration

research cooperation

Key words

kinematics, mechatronic,
hybrid, microsystem

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