

Proposals for cooperation of «Hydropneumodynamics and hydrodrive» department of NTU «KhPI»



Proposals for cooperation of «Hydropneumoautomatics and hydrodrive» department of NTU «KhPI»

Head of Departament – Prof. Gladky Petr Maksimovich
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Specialties for bachelor`s and master`s degrees:

1. Hydraulic Machines, Hydraulic and hydropneumoautomatics.
2. Hydraulic Machines, Hydraulic and hydropneumoautomatics.

Research activities of department.

Development and research of energy-saving structures of pneumatic actuators.

Research of pneumatic actuators with the free programming of positioning points on the basis of self-study mode.

Development of labyrinth-screw pumps and pulsation dampers pressure.

The study of dynamic processes in the hydraulic drive system.

Scientific research funded by the state Ukraine

- Album of energy-saving schemes of pneumatic actuators and marking the area of their most rational application.
- Development of the strategy of adaptive control of multipositional pneumatic actuators with self-study mode Algorithms and programs of microprocessor control.

Publications

- Andrenko P., Lebedev A. Labyrinth screw pump theory // MOTROL, 2014. – Vol. 16, No 6. P. 35–42.
- Andrenko P. Methodology design hydrodevices with oscillation // Industrial hydraulics and pneumatics. – Vinnitsa VNAU 2015 – №2 (48). – P. 34–44.
- Andrenko P., Dmitrienko O., Swinarenko M. Hydraulic passive dampers of pressure pulsations: Monograph. – Kharkov: Publishing FOP Panov A.M., 2016. – 147 p.
- Andrenko Pavlo wrote eight textbooks included two of them labeled MON Ukraine and 43 guidelines. He is Board member of the International Association of Industrial hydraulics and pneumatics and Editorial board of the journal Industrial hydraulics and pneumatics.

Publications Scopus

- Rational Braking Methods for Pneumatic Drives of auto-manipulators with Considerable Inertial Load. – Krutikov,G.A., Orobchenko, A. A., Chernysh,V.N., 1983, Izvestia vyssih ucebnyh zavedenij.Masinostroenie.
- Braking the pneumatic drives on automatic manipulators having large inertial loads - Krutikov,G.A., Kudryavtsev, A.I., 1984, Soviet Engineering Research.
- On choosing an energy – saving structure of a discrete pneumatic drive with large inertia loads - Krutikov,G.A., Toman,P.L., Tot,I.I., 1989, Soviet Engineering Research.

