

## Documents

Negodov, S.<sup>a b</sup>, Cheranov, S.<sup>b</sup>, Merzlikin, V.<sup>c d</sup>, Alimov, K.<sup>a</sup>, Milovanov, E.<sup>a b</sup>, Anatoly, F.<sup>c</sup>

**Method of controlling an object in space by an isolated power system using counter-rotating paired flywheels**  
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<sup>a</sup> Center Joint-stock Company Gecsotor, Moscow, Russian Federation

<sup>b</sup> Central RandD Automobile and Engine Institute NAMI, Moscow, Russian Federation

<sup>c</sup> Moscow Polytechnic University, Moscow, Russian Federation

<sup>d</sup> Plekhanov Russian University of Economics, Moscow, Russian Federation

**Abstract**

The study analyzes the use of technological methods of attitude control of an engineering object inside possible environments of the earth and outer cosmic space. The effects of independent power sources including mechanical, aerodynamic, reactive ones on the object are neglected. The proposed method for the orientation controlling and monitoring of an object in space uses the accumulated kinetic energy by counter rotating paired flywheels as well as a gyroscopic effect. The assessment of the limiting power dynamic characteristics of flywheels is carried out. © 2020 IEEE.

**Author Keywords**

attitude control; kinetic storage; paired flywheels; recuperation

**Index Keywords**

Attitude control, Cosmology, Earth (planet), Hydraulics, Kinetic energy, Kinetics, Wheels; Counter rotating, Engineering objects, Gyroscopic Effects, Isolated power system, Power dynamics, Power sources, Space use, Technological methods; Flywheels

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Bachelor's Degree, Altai State University, Faculty of Physics and Technology, Department of General and Experimental Physics

**Correspondence Address**

Negodov S.; Center Joint-stock Company GecsotorRussian Federation; email: gecsotor@gmail.com

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