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**Key words:** permanent magnets synchronous motor, computation of rotor angle turn and angular rate pulsation at computation of rotor angle turn and angular rate, Kalman filter, control system without sensor based on current source.

**G.A. Elgina, S.M. Slobodyan** (National Research Polytechnic University of Tomsk) **E.V. Ivoylov** (affiliate of JSC «Russian Railways» JV Transenergo)

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**Key words:** assessment, transformation, short circuit, winding, model, inductivity.

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**A.V. Karelin, Yu.A. Kuzmin, M.V. Ustinova, A.A. Fedenev** (FSUE TsNIIMASH)

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**Key words:** earth remote sensing, monitoring, spacecraft and space systems, data base, programming aids, computer technologies, on-board mission hardware.

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**Key words:** double-reflector antenna, spacecraft, on-board information system, CM band.

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**G.A. Akopov, I.A. Medvedkov, V.P. Khodnenko, A.V. Khromov** («VNIEM Corporation» JSC)

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**Key words:** small spacecraft, Vernier Propulsion System, stationary plasmajet engine, xenon filling system, integrated testing.

**E.A. Kanunnikova, M.V. Pustobaev, A.D. Sudomoev, A.P. Tyutnev** («VNIEM Corporation» JSC)

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**Key words:** tests, autonomous tests, pyrotechnic device, impact endurance, spacecraft, experimental assembly.

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**V.Yu. Anisimov, A.V. Pinchuk**, («VNIEM Corporation» JSC)

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**Key words:** Earth resources observation, spacecraft, polyzonal survey, information measuring equipment, ground-based complex, information reception and logging.