

CONTENTS**THEORY AND METHODS OF SIGNAL PROCESSING****Mukhina M. P.**

Visual slam algorithm using correlation extremal principle.....9

Sineglazov V. M., Osadchiy A. V.

Modern computer-aided design systems of navigation and traffic control.....13

Askerov Sh. I.

The choice of the solution filtration approaches in task of orientation.....17

Ivanov V. A., Zadorozhniy A. S.

Signal distortion in helicopters antenna system.....21

Bordyuh H. B.

Liquid crystal materials with regulated optical properties.....28

Kolesnik K. V., Kipensky A. V., Sokol E. I.

Simplified method of quality analysis for large objects perimeter monitoring radiotechnical systems.....33

Davletiants O. I., Kharlamov I. V.

Minimization of analog-to-digital signal conversion quantization noise.....41

AUTOMATIC CONTROL SYSTEMS**Kozlov A. P.**

Measurement system of low-altitude flight unmanned aerial vehicle.....48

Panov A. P.

Non-classical conjugate vectors and polar differential equations of rotation in orientation problem.....52

Panov A. P., Tsysarzh V. V.Application of exceptional non-normalized quaternion's, five-dimensional rotation vectors
and their algebras in problems of inertial orientation.....55**Sineglazov V. M., Belii V. M.**Structure of a program and technical complex of the automated control of system of navigation
and motion control.....60**Shevchuk D. O.**

Design of fault tolerant control system for aircraft when actuators faults and structural damage occur.....63

Bocharnikov V. P., Bezhnar I. V.The analysis of the dependence of UAV guidance quality on the dynamics forecasting accuracy
of maneuvering target.....68**Klyuchko O. M., Tsal-Tsalko V. I.**Device and software for testing and training of human visual memory on the base
of ATmega32 microcontroller.....75**COMPUTER-AIDED DESIGN SYSTEMS****Dmitrenko B. I.**

Using PV/wind hybrid systems in the autonomous outdoor advertising.....84

Sineglazov V. M., Karabetsky D. P.

Computer-aided design of solar power plant.....90

TRANSPORT SYSTEMS**Ablesimov O. K., Sarapina K.**

Analysis of unmanned aerial vehicle control system.....94

Rataichuk I. A., Kortunov V. I.

Kalman filter stationarity analysis in the task of inertial navigation system
errors stimation.....98

Konyushko V. M.

Aircraft control via Ethernet.....103

MATHEMATICAL MODELING OF PROCESSES AND SYSTEMS**Vishnevsky A. V.**

Fractal slicing routine for electromagnetic compatibility problems solution.....106

Sylvestrov A. N.

Evaluation of aerodynamic coefficients of longitudinal short-time movement of aircraft.....110

Shutko V. N., Klyuchko O. M., Managadze Yu. L.

Simulation of 2D neuron matrix functioning and principles of symbols coding
in ecomonitoring system.....114

Kozlov A. P., Yurchenko A. S.

Receiving device of infra low frequency vertical acceleration.....121

Requirements for Articles.....126