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Key words: spread spectrum signal, pseudorandom sequence, Kasami sequences, Gold sequences, code synchronization, demodulation algorithm, correct recognition probability.

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Key words: onboard automated control systems, performance monitoring, navigation sensors, cross-correlation.

The problem of controlling operability of onboard repeatedly redundant navigation sensors is discussed. An algorithm for monitoring performance on cross-correlation measurement of navigation parameters is carried out. The expression of decisive statistics for the algorithm of successive analysis of measurement cross-correlation coefficient is obtained. The algorithm to control operability of navigation sensors according to cross-correlation of navigation parameters measurements is offered. Preliminary results of mathematic modeling for offered algorithm operation are given. ....14

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Key words: psycho-emotional state of a human, acoustic noise, wideband noise, narrow-band noise, impulse noise, group method of data handling.

The possibility to assess psycho-emotional state of a person by analyzing the speech signal by the influence of acoustic noise is studied. The influence of broadband, narrowband and impulse noise on the emotional components of speech signal is carried out. Models of human psycho-emotional state classification based on group method of data handling are established. It was found that broadband noise and impulse noise are the most dangerous noises being capable to reduce the probability of human psycho-emotional state classification less than 0.5 .....19

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Key words: multimodal info communication system, falsity, nonverbal behavior, information integrity, unit cost.

General trends in the dynamics of subscribers nonverbal behavior parameters of info communication systems are studied in the article, on the basis of which a method to assess the falsity of information transmitted in the course of communicative act by such systems is provided. A gain in multimodal communication systems unit costs in relation to traditional info communications with additive build-up modalities is shown. The conclusion about the possibility to evaluate function the falsity of transmitted information in real time - in the process of subscribers interpersonal communication - is made. ....24

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Key words: data network, optical-electronic means, measuring station, trajectory information, priority service, window management, queuing system  $M/G/1$ .

The problem of finding the characteristics of data channel of aircraft opto-electronic trajectory measurements is studied. Input stream from each measuring station is simple with a given priority level. Frame transmission through the channel is based on window control. Channel quality indicators using the queuing system  $M/G/1$  are found. The degree of frame error probability influence in case of transmission protocol window length while transmitting via communication channel on mediate values of frame number in a system, the time of frame waiting in a queue, determined for priority and non-priority frames is evaluated. ....30

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Key words: base station location, evolutionary algorithm, wireless networks, optimization, SIR.

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Key words: steady state, harmonic balance, oscillators, phase noise.

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Key words: evaluation of password strength algorithm, entropy, brute-force attack.

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Key words: control tags, data binding method.

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Key words: information-measurement launches provision, measurement means complex, remote control.

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Key words: accessibility of the purpose in small, small spacecraft, theory of control.

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Key words: measuring equipment, stabilized laser, stabilization system, power of laser radiation, relative power instability, relative frequency instability.

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Key words: atomic-force microscope, white light interferometer, areal power spectral density, autocorrelation function, Allan variance.

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Key words: converter, design, adaptation, mathematical model, management, linear cylindrical engine.

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