Definition of characteristics of output streams of the random data in radio telemetering systems with compression

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Abstract: At compression of the data in radio telemetry systems arriving on an input of the device of compression of the data the stream of essential references represents random process. Therefore at analytical research of the device of shaping of several streams of its oblate data is considered possibly as system of a queuing [1]. Thus, it is possible to solve a problem of search of optimum parameters on boundary of area of their modification [2].

As coming requirements in the form of essential references are maintained by the groups which are not exceeding certain number *s* holding time distribution *s* on Erlang looks like requirements:

$$f(t) = \mu^k t^{k-1} e^{-\mu t} / (k-1)! \qquad (1)$$

where $\mu = k / M[t]$- intensity of service of one requirement, k - the distribution parameter of Erlang.

As a result of a problem solution of the probability distribution of a condition of system is received that and relative the average length of turn and its variance essentially depend on character of the distribution law of the holding time determined in parameters *k* and *s* of simultaneously maintained essential references.

Keywords: Compression of the data, essential references, queuing system, flow of priority messages.

References:

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