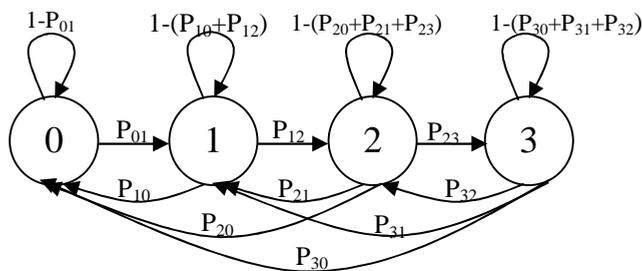


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The model of Human-Machine-Environment (HME) system which reduces the price of detrimental factor recovering is worked out. Subject of research: A Markov model of HME with protective subsystem. It changes discrete states continuously at random time. The considered model of a discrete dynamical system describes a situation, where the main subsystem "produces" harmful factor, and the second subsystem - defense - is trying to reduce it.



, $n=3$). « » n (

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$$P = \begin{bmatrix} 1-p_{01} & p_{01} & 0 & 0 \\ p_{10} & 1-(p_{10}+p_{12}) & p_{12} & 0 \\ p_{20} & p_{21} & 1-(p_{20}+p_{22}) & p_{23} \\ p_{30} & p_{31} & p_{32} & 1-(p_{30}+p_{32}) \end{bmatrix}$$

$$k - P^k -$$

:

$$P \quad k < 10.$$

(3-)

(. .1) P_{01} « » , P_{i0} -

()

C_i -

$$: = \sum C_i P_i \quad \text{min.}$$

$$P_i \quad P \quad k- \quad P_{ij} -$$

$$\sum_j p_{i,j} = 1.$$

(P).

1.

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