ENTROPIC ANALYSIS OF CYBERNETIC SYSTEMS AND ITS APPLICATIONS

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The work synthetizes the preoccupations of a group of Romanian specialists to create a general character methodology for analysing the self-adjustment systems, regardless the natural, biological, technical, industrial, economic or social class.

The fundamental element this methodology is based on, is the measuring of the entropy included in the effector of the cybernetic system.

The entropic state is a negative performance of the cybernetic systems. One can appreciate on this base the organizing or efficiency degree for the functioning of the effectors as against an undisturbed standard.

The authors made applications using a bivalent logic (on a probability area with events) obtaining positive results in the following domains:

— Measuring the organizing degree of industrial enterprises on whose base it is possible to do comparisons among units regardless the size and branch they belong to;

— Estimating the quality of mail and telecommunication services;

— Administration of using the memory peripheral units for the electronic computation systems;

— Diagnosis of the embolic postoperational accidents to patients.