J. Lifermann

LES SYSTEMES DISCRETS

(Discrete Systems)

Masson et Cie éditeurs, Paris, 1975, pp. 170.

Modern systems' theory postulate that the operation of all systems is related to three kinds of variables: of input, output and states.

When these kinds of variables can be supplied and noticed at every moment, we say that the system is of a continuous type. But, numerous systems exist and behave otherwise, namely they supply us data at certain moments or accept orders only at certain moments. We say that these systems are discontinuously operating.

The studying object of the present work consists in these discountinuous operating systems, namely discrete systems.

There are approached problems related to discreet operators — feed and subtraction operators — problems related to discrete sequences, Kronelker's sequence, E shapes of a discrete sequence, convolution of two sequences and problems related to theory of transfer functions.

On one hand, scalar transfer functions are presented, and on other hand, transfer matrices.

The final part of the book consists in "states theory", concerning both the state variables and state vectors and matrices, approaching also the problem of equilibrium states and of stability criteria.

The work is very useful to those which are interested in studying discrete systems.

C. Hârtu