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MECANIZAREA ŞI AUTOMATIZAREA LUCRĂRILOR DE CALCUL STATISTIC

(Mechanization and Automation of Statistical Computation Operations)

Editura Didactică şi Pedagogică, Bucureşti 1966, 436 pp.

This book is the first Romanian treatise dwelling on the mechanization and automation of the statistical computation, particularly on the possibility of using modern computation means. Therefore, stress is laid on questions regarding the planning of the mechanized processing of diverse statistical operations, the organization of the use of various computation means, the utilization and programming of electronic computers and the economic efficiency of the mechanized and automated processing of statistical data.

The book has been conceived as a treatise for the students of the Academy of Economic Studies in Bucharest. Chapter one concentrates on the importance and the subject-matter of the course, including an outline of the development of the computation technique, the accomplishments in this line in the Socialist Republic of Romania and a classification of the computers.

Chapter two provides data on several elementary mathematical instruments, such as the slide rule, the mechanical keyboard adding machines and some electromagnetic computation machines performing only successions of additions and subtractions.

Chapter three deals with the centralization (book-keeping) machines, their running system, the way in which the running of the centralized machines is controlled, with data on their operating possibilities and performing of the principal kinds of operations.

Chapter four focusses on punched card machines. It begins with the principles of the computation method, and continues with a description of diverse types of machines, which constitute a computation set, such as: punching machines, punching control machines, sorters, tabulators, machines for special purposes (this last category including summing card punchers, reproducers, interclassing machines, interpretation machines).

The electronic computation means form the objet of chapter five. After introducing a block diagram of the digital computer and providing information on the carrying out of the succesion of computations on digital computers, the GAMMA-3, URAL-2, IBM-705, and CIFA-3

computers are described and some data on other machines made in our country are included.

After getting readers acquainted with the computers available in our country, the authors deal with the mechanization and automation of the statistical computation operations.

Chapter six shows how the book-keeping (centralization) machines, the punched card machines, and the electronic computation means can be used to this end.

The organization of the mechanization and automation process of statistical operations (seen from three angles: computation offices, computers stations, and computing centres) is presented in chapter seven.

The last chapter concentrates on the economic efficiency of the mechanization and automation of statistical computation operations. In this respect, the economic efficiency of the mechanization and automation of statistical operations is shown; indications on the premises of the mechanization and automation of statistical operations are given as well.

The book rounds off with 22 bibliographical references.

In our days the statistical operations are of cardinal importance, since no scientific organization of production is possible without an adequate economic information. Hence, the outstanding contribution of this book to our economic practice.

The particularly detailed information provided on the modern computation means — from the slide rule to electronic computers — by the book "Mechanization and Automation of Statistical Computation Operations" exceeds by far the framework of a subject-matter taught at the Academy of Economic Studies; in fact, it is a work in which all those concerned with modern computation means — which witness a broader expansion with every passing day — find ample documentation.

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