CYBERNETIC MODELLING OF PRODUCTION PROCESSES

The Programme-Directive of technological research and development, organically integrated into the Directives of the Romanian Communist Party's XII-th Congress, settles as the fundamental line the tight correlation between the scientific researching activity and the growing needs of material production and social life. The research in the field of economic sciences has to directly participate in solving the problems of social labour productivity growth, of superior turning to account the raw materials and energy, of reducing the consumption and increasing the production profitableness and efficiency.

At the same time, the economic research has to investigate the faster ways of introducing the technical progress in the national economy, of scientifically organizing the production and labour; it has also to contribute to analysing and forecasting the new developing directions of society.

In the present general context of science and technics development, of applying in practice and in several fields of life the cybernetics researches and its working techniques, during May 29—31, within the Academy of Economic Studies it was held the Symposium: CYBERNETIC MODELLING OF PRODUCTION PROCESSES organised by the Department and Laboratories of Economic Cybernetics.

Didactic staffs, researchers and specialists in production and in the computation centres all over the country have participated in the symposium proceedings. At the three sections: Cybernetic Models in Economy, Models and Methods of Optimizing the Enterprises Activity, Information and Informatic Systems in Economy, there were delivered more than one hundred scientific papers in the top actuality fields.

The proceedings of the first section have approached the criteria of optimizing the economic-social development and their functions, possibilities and limits in measuring the dynamics of economic variables, efficiency models of investment, forecasting methods and models, particularities of cybernetic-economic modelling over territory etc.

In the field of models and methods to optimize the enterprises activity, there were tackled problems regarding the optimization of production planning and scheduling, the repairs planning and technical-materials supply, the optimization of designing parameters with a view to reducing the consumption of raw materials and energy. It was also discussed the problem of functioning of certain assemblies in metallurgical industry and engineering one, the computer designed dwellings etc., by using the most up-todate methods of operations research.

In the third section, the communications aim at different aspects of analysing and designing the information and informatic systems concerning the efficient planning of costs, programming and following of production, the achievement of data base etc.

Having as motto the indication given by the President of the Socialist Republic of Romania — Nicolae Ceaușescu — at the XII-th Congress of Party's Congress, according to which "...the research has to assure the faster development of adequate basis of raw materials and energy, the complex turning to account of internal mineral reserves, the intensive utilization of the new energy resources, the assimilation of new products having superior characteristics, the generalization of mechanization, automation and cybernetization of production, the introduction of new advanced technologies in all production branches which to allow the reduction of material and energetic consumptions, reutilization of raw materials and materials"..., the symposium also included a pannel called "Cybernetization of production processes in the light of Party's documents. The speakers have presented the up todate and future problems of working out the models system in the cybernetization process of production both at an enterprise level and territorial one.

The researches made and concretized within the communications have outlined the fact that application of modern method in managing, organizing and planning the economic activity requires an advanced conception with a view to applying the newest conquests of modern science and techniques, to substantiate the decisions-making in order to attain the supreme goal of our party and state — the building of the many-sided developed socialist society.

M. LUTIC