AN APPLIED SCIENCE SEMINAR

The Ploieşti Petrochemical Combine Group, together with the Bucharest Centre of Economic Computation and Economic Cybernetics sponsored last November a Seminar of applied science under the heading "The organization of general inspections at the Ploieşti Petrochemical Combine Group, using the methods of operations research".

The proceedings were attended by professor Nicolae Teodorescu, member of the Academy, Dean of the Faculty of Mathematics and Physics, by delegates on behalf of the sponsoring Ministry as well as by numerous guests, experts coming from the petrochemical and related industries and research workers from the Centre of Economic Computation and Economic Cybernetics.

The Seminar was not only an opportunity for a synthesis of results obtained from a valuable experiment, but also for a fruitful exchange of opinions and conclusions regarding future developments as well.

Four reports were submitted on the occasion: Analysis in terms of information and decision making of the general inspection system at the Ploieşti Petrochemical Combine Group, by T.Boteanu, I. Băncilă and M. Stoica; Programming and implementation of general inspections through the Critical Path Method, by H. Florescu, M. Paraschiv, D. Ivanov and C. Vasile; Adaptation and use of the PERT — ICT program for the general inspection of the olefine plant, by N. Calciu, G. Ciobanu, and G. Weisz; Testing the general inspection scheduling and implementation system at the olefine plant in October 1969, by G. Boldur, D. Vaida, and T. Vulpe.

The applications made at the Ploieşti Petrochemical Combine Group were materialized at the olefine plant in a three days'reduction of the general inspection time as compared to the original plan, which led to an additional polyethlylene output of 251 tons, equivalent to 3,785,000 lei and an additional benefit amounting to 1,882,500 lei.

Some specialized staff from the manufacturing departments pointed out that on the occasion of general inspections, when trying to apply the A.D.C. methods, were confronted with difficulties such as the lack of standards for work demand vs. time for each operation within the inspection, inadequate technical and material supply activity, a.s.o. The debates led to the conclusion that such difficulties could be overcome through a detailed analysis of the information — decision system.

In concluding the proceedings, professor Nicolae Teodorescu pointed out the benefits resulting from the application of operations research methods in enterprises and projected some elements on the general background of the priority programme for the applications of mathematics in economy;

1. the special advantage of a co-operation between research institutes and manufacturing enterprises;

2. the necessity of supplying industry with speciaized staff capable of applying the new achievements of world science and technique;

3. the need of involving in this effort the specialized staff employed in the government.

The subject matter of the Seminar was considered to be of particularly actual interest, as well as a good beginning and an incentive for other activities of co-operation between research and industry.

The following future goals have been set forth by the staff of the Combine Group and the Centre of Computation, based on results already achieved:

a. the final application of the new system at the olefine plant;

b. its generalization at the phenol-acetone plant, starting with the 1970 inspections;

c. the development of a co-ordinating inspection schedule for the entire Combine Group and of a general A.D.C. schedule in 1971, in order to co-ordinate the relations with suppliers;

d. the implementation, during the following years, of the system of a unique annual general inspection of the plants, based on co-ordinating schedules; as a result, one of the two technological cycles existing under the present method (two annual inspections) will be eliminated.

I. BĂNCILĂ