ON THE 100TH ANNIVERSARY OF NAUM S. RAIBMAN'S BIRTH

February 4, 2021, marked the 100th anniversary of Naum Samoilovich Raibman's birth. An outstanding scientist, one of the "titans" of the golden age in the history of Trapeznikov Institute of Control Sciences, Russian Academy of Sciences (RAS).

Naum Samoilovich was born on February 4, 1921, in Medzhybizh, Khmelnytskaya oblast, Ukraine. His education at Moscow Machine Tool Institute (STANKIN) was interrupted by the Great Patriotic War. Together with fellow students, N.S. Raibman served in the Red Army. After the dismissal of students, he continued his studies in the institute. In 1943, after graduating from the institute, he was sent to Novosibirsk, where he worked as a technologist for several years, and then as a deputy head of a workshop at one of the defense plants.

In 1946–1950, N.S. Raibman was a postgraduate student at Moscow Aviation Technological Institute, where he continued to work after defending his candidate's dissertation. Then he delivered lectures at Ufa Aviation Institute and returned to Moscow in 1959. Since that time, he was the department head in one of the industry research institutes.

In 1959, Naum Samoilovich began working at the Institute of Automation and Remote Control, the USSR Academy of Sciences (now Trapeznikov Institute of Control Sciences RAS, hereinafter referred to as the Institute). At that time, the identification of control systems became the sphere of his scientific interests.

In 1965, N.S. Raibman defended his doctoral dissertation on identification and led a research group in the Laboratory of V.S. Pugachev. In April 1968, the group was reorganized into Laboratory No. 41 of the Institute.

Naum Samoilovich applied much effort to make the identification of control systems a separate line of research. Within this theory, under his leadership, new methods for identifying multidimensional, nonlinear, and time-varying objects, new methods for determining the structure of objects, and new methods for identifying distributed parameter objects were developed. The dispersion theory of statistically optimal systems was elaborated.

Combining the talent of a scientist and the technical erudition of an engineer, N.S. Raibman proposed the theory of adaptive control systems with an identifier (ASIs). This theory received a real embodiment: ASIs for controlling the accuracy of hot rolling of seamless pipes were adopted at many factories of the USSR.

In 1976, the research team of Laboratory No. 41 of the Institute, led by N.S. Raibman, was awarded the USSR State Prize for developing and successfully implementing a control system for a pipe rolling mill 160 at the Pervouralsk Novotrubny Plant (PNTZ) using a domestic computer UM1-NKh.

Naum Samoilovich devoted much time and effort to training young specialists for the USSR and Eastern European countries.

His scientific results were published in 7 books and 150 articles, which are of interest to researchers and students even today.

He was a member of the Scientific and Methodological Council of the Znanie Society in the RSFSR and an editor of Mir and Radio i Svyaz', well-known Soviet publishing houses.

Thanks to the active scientific and organizational activities of N.S. Raibman, many conferences on control theory – the local ones organized in the USSR and the global ones held by the International Federation of Automatic Control (IFAC) – began to include sections devoted to identification.

Naum Samoilovich and employees of his laboratory coordinated the branch of identification at leading international conferences and symposia held by IFAC, the Council for Mutual Economic Assistance (CMEA), and the European Economic Commission (EEC).

Employees of Laboratory No. 41 of the Institute, led by N. S. Raibman, organized and held the 4th IFAC Symposium on Identification and Estimation of System Parameters (Tbilisi, 1976). Also, the All-Union Symposia on Statistical Methods in Control (Moscow, Tashkent, Frunze, and Vilnius) and the All-Union Annual Seminars on Identification within the Cybernetics program were organized by them.

N.S. Raibman edited the translations of the best foreign books on identification published in the USSR.

Over the years, N.S. Raibman actively worked in the IFAC structures. During the last four years of his life, he was a member of the IFAC Advisory Committee.

Naum Samoilovich died suddenly on January 8, 1981, forty years ago. He left in the prime of his creative powers. Many researchers in different countries responded by scientific publications in his honor. The 6th IFAC Symposium on Identification and Estimation of System Parameters (Washington, 1982) was dedicated to his memory as well.

Today the life-work of N.S. Raibman – identification of control systems – is actively developed within traditional and new lines of research, particularly in Laboratory No. 41 of the Institute.

Naum Samoilovich was a man of extraordinary kindness, high intelligence, and bright giftedness. His entire adult life was devoted to developing domestic science, technology, and industry. He made an invaluable contribution to the theory of identification and control of complex systems.

Employees of Trapeznikov Institute of Control Sciences RAS, The Editorial Board and Editorial Office of the Journal