
PROFESSOR JACOB MOISEEVICH EISENBERG (Яков Моисеевич АЙЗЕНБЕРГ) at 80 years

*Horea SANDI**



Jacob Moiseevich Eisenberg

Professor Jacob Eisenberg was born in Zhitomir (Ukraine) on 1 May 1932. After having graduated in 1955 at the Technological Institute of Kiev, he started working in Tiraspol, as manager of a construction site.

In 1957 he started his doctoral studies in the frame of “ЦНИИСК им. В.А. Кучеренко” (“V. A. Kucherenko” Central Institute of Scientific Research on Civil Engineering Structures) in the field of “Earthquake resistance of structures”. He defended his “candidate of technical sciences” (first doctoral degree) thesis, dealing with spatial seismic oscillations of structures, in 1961, at “МИСИ” (Moscow Institute of Civil Engineering). In 1972, he defended his doctoral (upper doctoral degree) thesis, dealing with «Адаптация к сейсмическим воздействиям и сейсмостойкость зданий с выключающимися связями» (Adaptation to seismic actions and earthquake resistance of buildings with opening connections) in ЦНИИСК. He worked in the frame of ЦНИИСК successively as junior researcher, senior researcher, head of laboratory and manager of “ЦИСС” (Research Centre of Earthquake Resistance of Structures).

The main fields of the scientific work of Prof. J. M. Eisenberg were: research on earthquake reaction of inelastic non-stationary systems, on safety of

systems with reserves, on systems with adaptive earthquake protection and earthquake isolation, on mathematical models of earthquake ground motion for engineering requirements. A series of important problems of earthquake resistance of structures were raised for the first time in Prof. Eisenberg’s publications. Together with his pupils and colleagues, he developed the field of adaptive earthquake isolation. Structures of this category were investigated not only from a theoretical view point: more than 200 such structures were already built. J. M. Eisenberg is one of the founders of the International Association on Earthquake Isolation. He was a vice-president of the European Association of Earthquake Engineering (1994 - 1998) and served, later on, also as a member of the Executive Committee of EAEE.

The problem of optimal design in earthquake resistant construction were first raised and investigated by him. A new mathematical model of seismic actions, as a set of non-stationary random processes, was developed. On the basis of this model a methodology of computer generating synthetic accelerograms was developed. New approaches to seismic zonation for earthquake resistant design were proposed on the basis of research on seismic risk.

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He actively participated in the development of strong vibration generators, shaking tables.

J. M. Eisenberg has published 250 works, including 7 monographs, 12 inventions, 6 regulatory documents. His works were published in USA, Turkey, Italy, Bulgaria, Romania and other countries.

During the last 35 years J. M. Eisenberg participated in the drafting of the design code «Строительство в сейсмических районах» (Construction in seismic areas), carrying out the coordination of the work of drafting of design regulations.

J. M. Eisenberg is conducting, besides research, an extensive teaching activity. 25 aspirants completed under his advising their theses of candidates of technical sciences. He is also the doctoral advisor for 3 doctoral theses. In 1992 he was invited to teach in the frame of the Istanbul Technical University, where he worked for 7 months. He came up with lectures at the invitation of universities of USA (Berkeley, Boston, Los Angeles, Buffalo, Chicago), Israel (Haifa), Cyprus (Nicosia) etc.

J. M. Eisenberg is a professor, doctor of technical sciences, scientist emeritus of the Russian Federation, Constructor emeritus of the Russian Federation, honorary academician of the “РААСН” (Russian Academy of Architecture and Construction Sciences), scientific leader of the Research Centre on Earthquake Resistant Structures of ЦНИИСК, president of the Russian Association for Earthquake Engineering, head editor of «Сейсмостойкое строительство. Безопасность сооружений.» (Earthquake resistant construction. Safety of structures).

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About five decades ago, professor Alexandru Cişmigiu (1917 – 2003), a great name of structural

engineering in Romania, among other one of the fathers of earthquake engineering in our country, met in Moscow J. M. Eisenberg. It was a time when ЦНИИСК played a leading role at world level in the activities of structural engineering research, the time when names like Barstein, Gemmerling, Goldenblat, Korchinski, Korenev, Rzhantsyn and several others, meant active illustrious researchers of that institute. Professor Cişmigiu told me at that time that J. M. Eisenberg appeared as the rising star of the young generation of researchers of ЦНИИСК.

J. M. Eisenberg and myself were of the same age and we were working in the same fields. Our paths met several times during our careers. There were bilateral cooperative actions or projects of ЦНИИСК and INCERC, joint projects in the frame of СЭВ (COMECON), professional visits in both senses (among other subsequently to recent strong earthquakes in Romania), participation (as lecturers) in regional seminars organized under the auspices of the European Association for Earthquake Engineering, in European Conferences and World Conferences on Earthquake Engineering. I always enjoyed meeting him and the same was true for my younger colleagues of INCERC. The professional interest in listening to his talks, as well as the pleasure of contacts at a wider, human scale, were always alive.

I am wishing heartily to Professor J. M. Eisenberg, as a colleague and friend, long life, with full health, with the same energy and professional and personal satisfaction.

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