

Vladimir Karapetoff

January 8, 1876 — January 11, 1948

Dr. Vladimir Karapetoff, professor emeritus of electrical engineering at Cornell University, passed away of a coronary occlusion Sunday, January 11, 1948, at the Park West Hospital in New York City. In March 1947, he had suffered a heart attack from which he recovered sufficiently to continue his work as consulting engineer, author, and other activities.

Dr. Karapetoff was born in St. Petersburg, Russia, January 8, 1876. He was the son of an engineer, Nikita Ivanovitch Karapetoff, and of Anna Joakimovna Ivanova, one of the few Russian women to attend military medical school. His childhood was spent in Tiflis. He was graduated from the Imperial Institute of Ways of Communication, St. Petersburg, Russia, in 1897 with a degree of Civil Engineer and received his Master of Mechanical Engineering in 1902. From 1899-1900 he studied electrical engineering at the Polytechnic Institute, Darmstadt, Germany.

Before coming to the United States of America in 1902, Professor Karapetoff worked as a junior engineer in the department of interior waterways with headquarters in St. Petersburg. He also was an instructor of electrical engineering, hydraulics, mechanics and physics in three technical schools and a night school. The Czarist Government then sent him to this country as an engineering apprentice with the Westinghouse Electric Corporation, East Pittsburgh, Pa., where he worked during 1902-04. He was naturalized March 22, 1909.

Dr. Karapetoff's professional attainments are numerous. Early in his career he served in the engineering department of Allis-Chalmers Company; Niagara, Lockport, and Ontario Power Company; General Electric Company; Commonwealth Edison Company; Gibbs and Hill; J. G. White and Company. He also assisted the U. S. Government in the solution of engineering problems during World War I and later was consulting engineer for Roebing Sons Company, Klaxon Company, General Electric Company and the Detroit Edison Company.

Professor Karapetoff was a licensed professional engineer in New York State and served as chairman and member of general and technical committees of the American Institute of Electrical Engineers, National Electric Light Association and American Association of University Professors. He was chairman of the sub-committee on Physics of the Electrical Insulation Conference of the National Research Council from 1928 to 1935 and chairman of the sub-committee on Monographs from 1935 to 1938.

In research Dr. Karapetoff was interested especially in applications of mathematics, mechanics, and physics

to electrical engineering. Specific contributions which he made include improvements in the theory of and computations pertaining to electric and magnetic circuits, high-voltage insulation, transmission lines, and electrical machinery as well as studies in the structure of matter applied to gaseous conduction of electricity and dielectric behavior. The results of these theoretical investigations took the form of kinematic computing devices, scales and mechanical models, illustrating the derived principles for practical applications. Experimental researches on machinery, measuring instruments, and properties of electrical materials were carried out for clients.

Many of us also knew Professor Karapetoff as a fine musician. He was an accomplished performer on the piano, violoncello and double bass, and toured the country giving recitals and lectures on Wagner, Liszt, Chopin, MacDowell, Schumann, Brahms, Debussy and Russian composers. Until nearly the end of his teaching career he played in the Cornell University Orchestra and various chamber music groups. In 1922, after some years of study, Dr. Karapetoff combined his scientific skill and musical knowledge in developing a cello with five strings on which violin music could be played. This is the only such five-stringed cello in existence and has been willed to the Franklin Institute.

Professor Karapetoff was probably best known for his long teaching career. His experience in this country began in 1904 as assistant professor of electrical engineering at Cornell University. He was appointed full professor in 1908 and continued as such until 1939 when he became Professor Emeritus. Thus he devoted thirty-five years in active teaching at Cornell. Professor Karapetoff, on all but the most formal occasions, preferred to be known as "Kary" and was so addressed by all his friends and co-workers.

He served as non-resident lecturer on electrical machinery at the U. S. Army Post-Graduate school for engineer officers, Washington Barracks D. C, was visiting professor in the Graduate School of Brooklyn Polytechnic Institute from 1930 to 1932 and also in Stevens Institute of Technology from 1940 to 1941.

Dr. Karapetoff wrote profusely. His two volumes on Experimental Electrical Engineering, now in the fourth edition, are accepted widely as standard texts and have also been translated into Spanish. The texts: Electrical Circuit, Magnetic Circuit and Elementary Electrical Testing are also well known. He wrote five volumes on Engineering Applications of High Mathematics, and translated Gevant's "Liquid Dielectrics" from the German. His book entitled "Resistance to Propulsion of Ships" was written in Russian, and "Polyphase Electric System with Unbalanced Load" was written in German and Russian.

In 1937 he published a book entitled "Rythmical Tales of Stormy Years," comprising a collection of his poems which attracted considerable interest. Besides his books, he published over two hundred papers and articles on scientific, engineering, ethical and educational topics. He was research editor of Electrical World from 1917-1927.

Dr. Karapetoff was a life member of the American Institute of Electrical Engineers, The Franklin Institute, American Association for the Advancement of Science, American Mathematical Society, Mathematical Association of America, American Physical Society, the U. S. Naval Institute and the U. S. Naval Reserve Officers' Association. For several years he was a member of the Board of Trustees of Ithaca College. Dr. Karapetoff received honorary membership in Tau Beta Pi, Eta Kappa Nu, Sigma Nu and Phi Mu Alpha. He was awarded the coveted International Montefiore Prize in 1922 and the Elliot Cresson Gold Medal of the Franklin Institute in 1927. In 1934 from New York College of Music he received an honorary Doctor of Music and in 1937 from the Polytechnic Institute of Brooklyn he received the honorary degree of Doctor of Science.

In 1942 and 1943 Professor Karapetoff successively lost the sight of both eyes. Although operations temporarily restored the detached retina he enjoyed little sight thereafter. To the end his characteristic cheerfulness, determination and ingenuity prevailed over aging physique; he was always the explorer and met his loss of sight with new learning in the techniques of Braille, the Talking Book Machine, etc. He was particularly devoted to Eta Kappa Nu and seldom missed the annual Eta Kappa Nu Award dinner in New York City. These occasions grew to mark a national "Kary" reunion almost as much as a recognition of outstanding young engineers. Even after blindness he continued to attend and address these meetings in his always refreshingly original and lucid exposition of technical interests.

Through these later years much of his happiness came through the devotion of his wife, R. M. Karapetoff Cobb, who survives him. He lived a rich, full life and contributed more than most to the University, especially to the teaching and engineering professions, and notable to the many other fields which seriously or as hobbies attracted his active interest.

R. F. Chamberlain, W. A. Hurwitz, B. M. Strong