**Professor Vladimir Vasil'evich Bolotin (1926 – 2008)**

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Academician Vladimir Vasil'evich Bolotin, an outstanding scientist in the field of mechanics, passed away on May 28, 2008 after a serious long illness.

Bolotin was born on March 29, 1926 in Tambov. In 1948, he graduated from Moscow Institute of Railway Engineering in the speciality "Bridges and Tunnels." In 1950 he defended his Candidate dissertation, and two years later, at the age of 26, his Doctoral dissertation. Since 1953, Bolotin had been working at Moscow Power Engineering Institute (MPEI) at the Department of Strength of Materials. Since 1958, for 38 years he had been Chair of this department, which was renamed as the Department of Dynamics and Strength of Machines in 1969, after Bolotin had organized a new speciality in 1962. Since 1980, Bolotin had been Head of the Laboratory of Reliability and Resources and simultaneously continued to work at MPEI. In 1974, he was elected Corresponding Member of the Academy of Sciences of the USSR, and in 1992 he was elected Full Member of the Russian Academy of Sciences.

Bolotin had wide scientific interests. He made significant contributions to several fields of theoretical and applied mechanics: the theory of vibrations and stability, applied theory of elasticity, structural me- chanics, theory of reliability and safety of machines and structures, fracture mechanics, and mechanics of composites. He published more than 500 scientific papers, including 15 monographs. Bolotin's papers are widely known in our country and abroad and are used in various fields of science and technology. His monographs were translated into many languages, and most of the papers were published abroad.

Bolotin obtained fundamental results in the theory of stability of elastic systems under dynamic loads, in the theory of aeroelasticity, and in the development of asymptotic methods for solving problems in vibration theory. He exerted significant influence on the development of probabilistic-statistical methods in mechanics, on the construction of the general theory of reliability of structures, and on the development of the theory of seismic resistance of installations.

In the field of mechanics of composites, he developed models of layered and fibered media, methods for determining efficient elastic moduli, methods for predicting residual stresses in structures made of composite materials, stochastic models of damage accumulation and fracture, methods for predicting the resources at the stage of design of technical objects, and methods for estimating the residual resources at the stage of their operation. In the last years, Bolotin actively worked in the field of fracture mechanics; he proposed a general approach to describing the mechanical behavior of loaded bodies under variations in their configuration, including crack propagation; he developed the theory of crack growth, which describes all stages of fatigue failure. Bolotin found applications of the theory to crack growth modeling with hereditary phenomena and the influence of aggressive media taken into account.

Bolotin actively worked on the solution of applied problems in construction industry, aviation and space technology, shipbuilding, and nuclear power engineering; he was at the head of development of a new generation of state standards in reliability of technical objects and of reference and methodological materials.

Bolotin gave much force and energy to the improvement of education of engineering, scientific, and pedagogical personnel. Under his guidance, the Department of "Dynamics and Strength of Machines" at MPEI

trained more than 1200 mechanical engineers-researchers. Representatives of the scientific school created by Bolotin are fruitfully working in numerous fields of science and technology. Under his guidance, 20 Doctor dissertations and more than 150 Candidate dissertations were defended.

Bolotin carried active social-scientific and organizing work in the Russian Academy of Sciences, in the Russian Academy of Architecture and Civil Enginering, at the National Committee in Theoretical and Applied Mechanics, in the All-Union Council of Scientific and Technical Society, in Scientific and Technical Society of Construction Industry, in Scientific and Technical Council of "Gosstroi," in Interindustry Scientific and Technical Complex "Reliability of Machines" in Higher Attestation Com- mission, at Editorial Boards of domestic and foreign scientific journals, at the Organizing Committees of numerous scientific conferences and symposia. He was frequently invited to deliver lectures at leading foreign universities and scientific centers. For his versatile activity, Bolotin received state awards and domestic and foreign scientific prizes and titles. He was awarded the State Prizes of the USSR and the Russian Federation in the field of science and technology, the Prize of the Government of the Russian Federation, the Honorary Prize of the European Safety and Reliability Association, and the Alexander von Humboldt Prize. Bolotin was elected Full Member of the Russian Academy of Sciences, the Russian Engineering Academy, and the Russian Academy of Architecture and Civil Engineering, Foreign Member of the USA National Engineering Academy, Honorary Professor of MPEI, and Honorary Doctor of Budapest Technical University. Bolotin was awarded the Order of Lenin, Order of the Red Banner of Labor, Order of the October Revolution, Order of Friendship, Gold Medal of the Czechoslovakian Academy of Sciences "For Great Services Rendered to Science and Mankind," and the Alfred Freudenthal medal of the American Society of Civil Engineers.

The blessed memory of Vladimir Vasil'evich Bolotin will forever remain in the hearts of his students, friends, and colleagues.