Actual problems of machine science and their solution

On November 20-21, 2019, a scientific and practical conference was organized by the Institute of Mechanics and Seismic Resistance of Structures named after M.T. Urazbaev of the Academy of Sciences of Uzbekistan together with the Tashkent Institute of Textile and Light Industry on the topic: “Actual problems of machine science and their solution” dedicated to the 100th anniversary of Academician H. H. Usmanhodzhaeva.

Scientific reports noted that Academician H.H. Usmankhodzhaev was a prominent scientist in the field of mechanics, who created a scientific school on the theory of mechanisms and machines in Uzbekistan.

The main studies of H.H. Usmanhodzhaeva refers to the theory of machinery mechanisms and automatic lines, the theory of linkage and epicyclic mechanisms, the theory of cotton machines and the dynamics of machine assemblies. He created a device for determining the coefficient of friction, sliding and rolling between the elements of various kinematic pairs, taking into account humidity, temperature and material structure. He is the author of the theory of stability of completeness of cotton picking and methods for evaluating cotton pickers by productivity. H.H.Usmankhodzhaev created a high-performance multi-roll gin, pneumatic and mechanical pick-ups and a new direct-flow cotton picker. He developed the theory of a kinematic pair of dynamic design and is one of the creators of the family of composite spindles of the cotton picker. Based on research on the theory of cotton harvesting processes, he created the “Universal EPI-Cycocyclograph device.” For his contribution to the development of the theory of mechanisms and machines, he was awarded the title of Honored Worker of Science of Uzbekistan, laureate of the State Prize of Uzbekistan.