

Univ.-Prof. Dipl.-Ing. Dr. techn. DDr. h.c. Josef Eberhardsteiner

Institute for Mechanics of Materials and Structures, Vienna University of Technology, Austria

Professional history including major awards:

Josef Eberhardsteiner studied Civil Engineering at Vienna University of Technology (VUT) where he was graduated to "Diplomingenieur", in 1983. In 1989, he obtained the degree of "Dr. techn." from VUT. From 1983 to 2001 he was a University Assistant at the Institute for Strength of Materials at VUT. Since 1992 he has held the function of Head of the Laboratory of this Institute. In 2001, he obtained the habilitation, equivalent to a D.Sc. In the same year he was appointed to Associate Professor and in 2003 to Full Professor, both at VUT. From 2004 to 2007 and from 2010 to 2011 he was Head of the Institute for Mechanics of Materials and Structures of VUT. Since 2008 he is Dean of the Department of Civil Engineering of VUT. He was Secretary General of the Fifth World Congress on Computational Mechanics (WCCM V), in Vienna, in 2002. In 2005, he was awarded the Decoration of Honor in Gold for Services to the Republic of Austria. In 2009, he was elected to Corresponding Member of the Austrian Academy of Sciences and in 2010 he obtained the Robert Hooke Award from the European Society for Experimental Mechanics. He received Honorary Doctorates from the Belarussian National Technical University, Minsk, and from the University of Architecture, Civil Engineering and Geodesy, Sofia, in 2011 and, also in 2011, he obtained the Leonardo da Vinci Medal from the Czech Association of Mechanical Engineers.

Short description of the major accomplishments of the nominee:

Josef Eberhardsteiner is best known for his seminal work on computational mechanics of wood and wooden structures. To support his computational research work by experiments, he designed equipment for biaxial testing of wood characterized by the non-coincidence of the fibers with the principal directions of strain and, consequently, of stress. Deformation measurements were performed by laser-optical techniques. This research resulted in his habilitation thesis which was published as a Springer book. More recently, he became involved in multiscale analysis of wood and asphalt. In order to validate the selected homogenization schemes, he took part in establishing a Laboratory for Micro- and Nanomechanics of Biological and Biomimetic Materials at VUT, of which he became Co-Chair. Because of his great experience in material mechanics he was appointed to President of the European Virtual Institute on Knowledge-based Multifunctional Materials (KMM-VIN). He has contributed to many other fields in Civil Engineering, such as computational mechanics of concrete. His scientific trademark is the symbiosis of computational and experimental mechanics of both, materials and structures. He has published approximately 270 papers. He is a member of the editorial boards of several first-class international journals.

Josef Eberhardsteiner is deeply rooted in both the Experimental and the Computational Mechanics Community. In addition to his aforementioned role at WCCM V, he is an active member of the Scientific Committee of the Danubia-Adria Society (DAS) on Experimental Mechanics since 1994 and of the Permanent Committee of the European Association for Experimental Mechanics (EURASEM) since 2007. He will be Chair of the 6th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2012), in Vienna, in 2012. Josef Eberhardsteiner's unselfish activities in the Computational Mechanics Community were acknowledged e.g. by his election to the ECCOMAS Managing Board, in 2009.