SVU Member Elected to the National Academy of Engineering

Vaclav Vitek, a professor of materials science and engineering at the University of Pennsylvania, has been elected to membership in the National Academy of Engineering. Vitek, who joined the faculty of Penn's School of Engineering and Applied Science in 1978, is one of 76 engineers nationwide inducted into the Academy this year.

Election to the Academy is considered one of the highest professional distinctions accorded American engineers. Vitek was recognized for “work in the development of the atomistic modeling of crystalline solids and their application to materials engineering."

His research draws greatly on his background in physics, using the condensed matter physics based methods to study the atomic level structures and properties of defects in materials. These studies extensively employ large-scale computer simulations. Vitek's work provides the means for introducing into the engineering analyses and development of new stronger materials approaches based on fundamental physics.

Much of Vitek's current work, funded by the Department of Energy, involves the investigation and modeling of materials that could withstand the high temperature environments associated with the generation of energy. In 1996 he was awarded for this work the Gold Medal of Acta Metallurgica, one the highest distinctions in materials research community.

Born in the Czech Republic, Vitek received his Ph.D. at the Czechoslovak Academy of Sciences and carried out his research for several years at Oxford in the U.K. before coming to Penn. He has maintained close ties to Czech researchers and, since the 1990s, has been instrumental in aiding Czech graduate students in coming to the United States. In 1999, Vitek received Ernst Mach Medal in Physical Sciences awarded by the Czech Academy of Sciences, in recognition of his scientific contributions and ongoing collaboration with Czech researchers.