

## 2011 Board of Trustees' Award for Outstanding Research and Creative Scholarship Recipient

### Kaveh Pahlavan

Professor Kaveh Pahlavan is internationally recognized for his work in wireless data communications, particularly indoors, during his 25-year tenure at Worcester Polytechnic Institute (WPI). One nominator stated: “I can say without reservation that Kaveh enjoys a worldwide reputation as a truly outstanding pioneering researcher in the field of wireless networking. To many leading researchers and practitioners in the field, he is known informally as the ‘father of wireless local-area networking (WLAN),’ a recognition that he thoroughly deserves.”

In 1985, Kaveh established the first modern wireless networking research program in the world and the first university wireless networking research laboratory at WPI. In 1987, he received the first NSF award in wireless local area networking in the country. In 1991 he founded the first IEEE International Workshop on WLAN. In 1992, he organized and became the TPC chair of the IEEE International Symposium in Personal, Indoor, and Mobile Radio Communications (PIMRC) in Boston, one of the premier conferences in wireless networking. In 1993, he began his cooperation with the University of Oulu, Finland by helping them organize an IEEE International Symposium on Spread Spectrum Techniques and Applications. In 1994, he founded the *International Journal of Wireless Information Networks*, the first journal in this field. In 1995, he published the first graduate level reference and textbook *Wireless Information Networks*, co-authored by Dr. Allen Levesque. In 1996, he started his seminal research in Hybrid Wireless Networks with Nokia and other Finnish agencies. In 1997, he started his first research with DARPA in “Indoor Geolocation.”

Dr. Kaveh Pahlavan was the first Weston Hadden Professor in the Electrical and Computer Engineering Department (ECE) at WPI, from 1993 to 1996. He is an elected fellow of IEEE (1996), and a member of the Evolution of Untethered Communications Committee, National Research Council, 1997. He was elected as the first non-Finnish fellow of Nokia (1999) and was awarded the first Fulbright-Nokia fellowship, 2000.

One nominator wrote: “He co-authored [with WPI alum Allen Levesque] the seminal text in wireless data communication, *Wireless Information Networks*, in 1995 and subsequently has authored three more texts in this field, the most recent published in 2009. He founded and serves as Editor-in-Chief of the *International Journal of Wireless Information Networks*.”

Another international nominator wrote: “Kaveh has published numerous seminal visionary and technical papers in wireless networking and localization, which have been the focal point of his research since the mid-1980's.” Dr. Kaveh Pahlavan has published 64 refereed journal papers, 14 book chapters, 5 text books, and 103 conference papers and abstracts.

“Perhaps most significant for an academic, Kaveh has a superb record of mentoring PhD students, who demonstrate outstanding career success in industry and academia. Finally, Kaveh’s work has been recognized internationally and has been supported by the National Science Foundation and the Department of Defense, among other agencies and corporation,” a nominator stated. During his tenure at WPI, Dr. Pahlavan directed 23 Ph.D. dissertations. Since 1995, he has received 26 research grants as PI, co-PI and co-investigator, with research funding exceeding \$7 million.

On the impact of Kaveh’s work, one nominator wrote: “I have personally followed Prof. Pahlavan's work over the past 23 years, and have seen the impact that he and his students have had on the wireless communications industry that we all enjoy and take for granted today. Pahlavan's early work in understanding the radio channel paved the way for Wireless Local Area Networks, wireless PBX telephone systems, and factory logistic systems that are now commonplace. More recently, his work in position location has helped create new applications that will become vital as social networking and wireless devices merge.”

Another international nominator wrote: “Prof. Pahlavan is one of the world's leading researchers in the field of wireless networking. He has made sustained contributions to this field throughout his career, but I would say that his most notable contributions have been in the development of two major wireless technologies: wireless local area networks (known today at "WiFi" networks) and wireless geo-location. He was among the very first researchers to become active in the study of each of these technologies, both of which have had enormous impact both within the field of communications engineering and on society at large. It is safe to say that these technologies would not exist as we know them today without his pioneering contributions to them.”

Professor Pahlavan has strongly exemplified the qualities of scholar, researcher, and teacher for which we honor him with this award and by which he has brought enduring recognition and acclaim to this university.

In recognition of his significant contributions to the field of Electrical and Computer Engineering, especially his contributions and far-reaching impact on the development of modern wireless networks and consequently on society, it is with great pride that

Professor Kaveh Pahlavan is named the recipient of the 2011 Board of Trustees' Award for Outstanding Research and Creative Scholarship.