

# IMPACT

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Featured article:  
**RICHARD WEIDNER**

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### Richard Weidner

Richard Weidner realized his engineering talent in high school with a desire to create things of all kinds. In a high school course for future farmers, he began welding a robot, but the teacher, thinking it was a waste of time, never allowed him to realize this dream. Now, instead of building metal robots, he builds design applications for robotic exploration of outer space.

Weidner was born in Woodward, Okla., a descendant of immigrant farmers. He began his college education by earning his bachelor's degree in electrical engineering from OSU in 1977 and with Robert Mulholland's encouragement, began graduate study at OSU. Under Mulholland's guidance, he earned a master's degree in 1979, followed by the Ph.D. degree in 1981, both in electrical engineering.

It was during his graduate studies he first met his future wife Meemong Lee, another electrical engineering doctoral student, when she occupied a next-door office in Engineering South. Weidner spent hours perfecting his skill at darts in order to show off to Lee with her office dartboard.

Weidner and many of his fellow graduate students were fascinated by the Carl Sagan PBS television show *Cosmos*. Knowing of Weidner's interest in space, Mulholland recommended him for a position at Jet Propulsion Laboratory, where he has developed an extraordinary 28-year career so far.

Weidner's initial assignment at Jet Propulsion Laboratory was autonomous processing of spaceborne imagery for spacecraft navigation, which allowed him immediately to apply concepts of digital signal processing learned from Rao Yarlagadda at OSU in the 1970s.

Later he became an expert in real-time monitoring, visualization and planning planetary missions, including the development of software systems for mission simulation and visualization.

In 1986, he received the NASA Manned Flight Awareness Certificate of Appreciation for his contributions to the Challenger investigation. In 1997, NASA awarded him the NASA Exceptional Service Medal for Mars Pathfinder mission support, and in 2005, he was honored with the Cassini Certificate of Recognition for his work in real-time mission simulation and visualization.

During his career at Jet Propulsion Laboratory, he has worked on many missions including Voyager, Stardust, Mars Pathfinder, Mars Odyssey, Cassini, JUNO and others. His recent work includes modeling, simulation and visualization of a spacecraft proposed to arrive at Jupiter in 2016. He is also working with an extension of this work in support of studies dealing with global warming.

Weidner and his wife, Meemong Lee, reside in Pasadena, Calif., where his career continues at Jet Propulsion Laboratory.

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