UC San Diego's Larry Smarr Elevated to IEEE Fellow

Story by:

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Larry Smarr, a pioneer in scientific computing, supercomputer applications, and Internet infrastructure from the University of California San Diego, has been named a fellow of the Institute of Electrical and Electronics Engineers (IEEE), one of the world's most prestigious engineering organizations.

Following a rigorous evaluation, the IEEE Fellow Committee recommends a select group of recipients for elevation to IEEE Fellow each year. Less than 0.1% of voting members are selected annually for this distinction, according to the IEEE.



Larry Smarr, Distinguished Professor Emeritus of Computer Science and Engineering at the Jacobs School of Engineering and founding director of California Institute for Telecommunications and Information Technology (CalIT2)

Smarr, a distinguished professor emeritus at UC San Diego, was selected for contributions to supercomputing and metacomputer cyberinfrastructure.

He joined the UC San Diego Department of Computer Science and Engineering in 2000. Later that year, he became the founding director of California Institute for Telecommunications and Information Technology (CalIT2), a partnership of UC San Diego and UC Irvine, that was recently expanded to include UC Riverside. In the following two decades, before his retirement in 2020, Smarr grew CalIT2 into a collaborative discovery enterprise that engaged hundreds of faculty, staff, students and companies. He was named the Harry E. Gruber Professor of Computer Science and Information Technologies in 2002.

With 20 years of National Science Foundation (NSF) funding, Smarr and his colleagues demonstrated how to use optical fiber networks to create distributed computer, storage, and visualization systems to empower data-intensive research, first on the UC San Diego campus,

then extending to connect campuses in California, across the nation and around the world. This has resulted in the creation of NSF's largest distributed academic AI/Machine Learning Big Data cyberinfrastructure in the United States.

Over the last decade, Smarr has also become a pioneer in the quantified-self movement, including personalized surgery. He has developed a unique, multi-year time series of over 100 blood biomarkers and gut microbiome genomics, using his own body as a laboratory–data, which are now being analyzed by many UC San Diego faculty, staff and students. He has also served as a lead investigator on research supported by the Helmsley Charitable Trust on a 3D medical imaging pilot to improve surgical outcomes for patients with Crohn's Disease.

His commitment to public service extended to stints on President Bill Clinton's Information Technology Advisory Committee, the Advisory Committee to the director of the National Institutes of Health, where he served three directors, Department of Energy advisory committees, as well as serving on the Advisory Council to four NASA administrators. Smarr also was the founding director of the National Center for Supercomputing Applications in 1985 at the University of Illinois, Urbana-Champaign.

IEEE had previously honored Smarr with the 2006 IEEE Tsutomu Kanai Award "for pioneering research in the design and architecture of distributed national infrastructures for high-performance computing."

A new website that contains his published papers, some 400 presentations, his grants, honors and media coverage from the more than 50 years of his professional service is now live at https://lsmarr.net/.

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