

## Darryll Pines

### **Darryll Pines, Ph.D. Nariman Farvardin Professor & Dean A. James Clark School of Engineering University of Maryland**



Darryll J. Pines became Dean and Nariman Farvardin Professor of Aerospace Engineering at the Clark School on January 5, 2009, having come to the school in 1995 as an assistant professor and served as chair of the school's Department of Aerospace Engineering from 2006 to 2009.

As dean, Pines has led the development of the Clark School's current strategic plan and achieved notable successes in key areas such as improving teaching in fundamental undergraduate courses and raising student retention; achieving success in national and international student competitions; giving new emphasis to sustainability engineering and service learning; promoting STEM education among high school students; increasing the impact of research programs; and expanding philanthropic contributions to the school. Today, the school's one-year undergraduate retention rate and five-year graduation rate is 90 percent and 65% respectively, the university's Solar Decathlon team placed first worldwide in the most recent competition against other leading universities, our Engineers Without Borders chapter is considered one of the nation's best, and the Engineering Sustainability Workshop launched by Pines has become a key campus event. Pines has testified before Congress on STEM education and created the Top 25 Source Schools program for Maryland high schools. At a national level he has lead an effort as part of the American Society for Engineering Education-ASEE Deans Council's K-12 STEM Committee to develop a potential College Board AP Exam in Engineering. At \$144 million, the school's research expenditures are at a record high, and the school is ranked 13th worldwide by the Academic Ranking of World Universities, which focuses on research citations. The Clark School has led the university in achieving and surpassing its \$185 million Great Expectations campaign goal, going on to reach \$240 million as of the most recent accounting.

During Pines' leadership of aerospace engineering, the department was ranked 8th overall among U.S. universities and 5th among public schools in the U.S. News and World Report graduate school rankings. Pines has been director of the Sloan Scholars Program since 1996 and director of the GEM Program since 1999, and served as chair of the Engineering Council, director of the NASA CUIP Program, and director of the SAMPEX flight experiment. He currently serves on the Executive and Advisory Board for Engineers Without Borders-EWB National, the National GEM Consortium, and major corporations.

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During a leave of absence from the University (2003-2006), Pines served as Program Manager for the Tactical Technology Office and Defense Sciences Office of DARPA (Defense Advanced Research Projects Agency). While at DARPA, Pines initiated five new programs primarily related to the development of aerospace technologies, for which he received a *Distinguished Service Medal*. He also held positions at the Lawrence Livermore National Laboratory (LLNL), Chevron Corporation, and Space Tethers Inc. At LLNL, Pines worked on the Clementine Spacecraft program, which discovered water near the south pole of the moon. A replica of the spacecraft now sits in the National Air and Space Museum.

Pines' current research focuses on structural dynamics, including structural health monitoring and prognosis, smart sensors, and adaptive, morphing and biologically-inspired structures, as well as the guidance, navigation, and control of uninhabited aerospace vehicles. He is a fellow of the Institute of Physics, the American Society of Mechanical Engineers and the American Institute of Aeronautics and Astronautics, and has received an NSF CAREER Award.

Pines received a B.S. in mechanical engineering from the University of California, Berkeley. He earned M.S. and Ph.D. degrees in mechanical engineering from the Massachusetts Institute of Technology.