Carnegie Mellon Mechanical Engineer Wins National Science Foundation Early Career Award

PITTSBURGH — Carnegie Mellon University’s Jeremy J. Michalek has received the National Science Foundation’s most prestigious honor for new faculty members, the Faculty Early Career Development Award.

Michalek, an assistant professor of mechanical engineering, will receive the five-year, $400,000 grant to analyze how public policy — such as fuel-economy standards — could determine the types of more efficient vehicles built in coming years and how consumers might respond to these new models. The award recognizes the early career development activities of those teacher-scholars who are most likely to become the academic leaders of the 21st century.

Michalek’s research comes at just the right time. Industry experts are predicting gas pump prices, which jumped by almost a dollar a gallon in each of the last two springs in many parts of the United States, will spike again this year as refiners and gas stations switch from winter- to summer-blended fuels. The increases, starting as early as February in southern California, could push the average national price to a record $3.50 a gallon or more by June.

U.S. officials have been pushing the auto industry to investigate alternatives to fossil fuels. The Energy Independence and Security Act signed last month by President George W. Bush contains strict emissions standards and goals for increasing development of renewable fuels.

“Well-intended policies can lead to counterproductive outcomes when technical tradeoffs and market reactions are not anticipated,” said Michalek, director of the Design Decisions Laboratory at Carnegie Mellon. “Our aim is to understand tradeoffs in the capabilities of new technologies and predict what consumers will buy and how profit-seeking automakers will respond in the regulated marketplace.”

Michalek received his bachelor’s degree in mechanical engineering from Carnegie Mellon in 2001 and a Ph.D. in mechanical engineering from the University of Michigan in 2005.

###
About Carnegie Mellon: Carnegie Mellon is a private research university with a distinctive mix of programs in engineering, computer science, robotics, business, public policy, fine arts and the humanities. More than 10,000 undergraduate and graduate students receive an education characterized by its focus on creating and implementing solutions for real problems, interdisciplinary collaboration, and innovation. A small student-to-faculty ratio provides an opportunity for close interaction between students and professors. While technology is pervasive on its 144-acre Pittsburgh campus, Carnegie Mellon is also distinctive among leading research universities for the world-renowned programs in its College of Fine Arts. A global university, Carnegie Mellon has campuses in Silicon Valley, Calif., and Qatar, and programs in Asia, Australia and Europe. For more, see www.cmu.edu.