

rEPPort

Carnegie Mellon

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A newsletter reporting the activities of the faculty, students and graduates of the Department of Engineering and Public Policy in the College of Engineering at Carnegie Mellon.

TWO NEW FACULTY JOIN EPP...

David Keith addressing carbon management and climate issues

David Keith joined the EPP faculty this fall as an Assistant Professor to work on issues in atmospheric science, geoengineering, carbon management and various aspects of global change. His teaching plans include courses on issues in climate, weather and public policy and on instrumentation for atmospheric science.

An experimental physicist, David did his Ph.D. at MIT during 1987-91. His thesis involved a direct demonstration of wave-particle duality through the observation of the diffraction of atoms by a transmission grating. While at MIT he became very interested in issues of climate change and atmospheric science.

David first joined EPP as a post-doctoral fellow in 1991-2 during which time he worked on geoengineering, and collaborated with Granger Morgan (EPP/ECE/Heinz) on a project to perform expert elicitations of 16 leading US climate scientists. In 1992-3, he worked at the National Center



David Keith

for Atmospheric Research in Boulder, Colorado,

Allen Robinson explores combustion and air pollution

Allen L. Robinson joined the faculty in November of 1998 in a 50:50 joint appointment as Assistant Professor in Mechanical Engineering and Engineering and Public Policy. Allen is an expert in combustion and is working on a variety of issues such as biomass fuels, particulate air pollution, and



Allen Robinson

energy policy. He is also developing courses on air pollution control and renewable energy technology.

Allen did a BS in Civil Engineering at Stanford, then switched to Mechanical Engineering at Berkeley, where he completed a Ph.D. in 1996, working on issues related to the movement of soil-gases, such as radon, into buildings. From 1996 to 1998, he was a post-doctoral research fellow at the combustion research facility at Sandia National Laboratories where he studied a variety of problems related to biomass fuels including issues related to co-firing biomass with coal. The

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Joint India-US Meeting Charts Course to Improve Indian Electric Power System

Abundant reliable low-cost electric power will be critical to the future of India. Today, with an installed capacity of about 93,000 MW, India's average per capita consumption is under 400 kW-hr per year, as compared with about 14,000 in the US.

However, at the moment, technology issues, such as limited supply, are not the most serious problems faced by the Indian power system. This was the widely shared conclusion of a meeting of 22 Indian and US experts in electric power, hosted by EPP and held at the Arden House on the University of Warwick campus in Coventry, England. The present institutional arrangements in India's power sector, and the resulting incentives faced by different actors of the sector, result in seriously inefficient and economically dysfunctional behaviors. A major restructuring of institutional arrangements and incentives is needed, including the rationalization of tariffs and subsidies, the introduction of time dependent rates, and the elimination of operating debts.

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