MITei MIT Energy Initiative

The Energy Challenge: Innovation and the Role of ARPA-E

Arun Majumdar

Wednesday, October 13

4:15 PM
Reception to follow

Bartos Theatre, E15-070
20 Ames Street

We are living through a Sputnik moment in our nation's history, where we have witnessed multiple wake up calls with regards to the need for innovating in energy technologies. ARPA-E was created to address this need by investing in high-risk/high-impact projects, with a mission to: (i) reduce energy imports; (ii) reduce energy-related emissions; (iii) improve energy efficiency of all economic sectors; and (iv) to ensure US technological lead. This mission is at the heart of our national, economic and environmental security. This talk will first briefly explain the history of the agency and then focus on new technical programs that have been created to address the mission, as well as a few scientific ideas that capture the imagination of what is technologically possible. The talk will also explain how it is planning for the future, both in terms of technologies as well as an organization.

About the Speaker

Arun Majumdar became the first Director of the Advanced Research Projects Agency – Energy (ARPA-E), the country's only agency devoted to transformational energy research and development, in October 2009. Prior to joining ARPA-E, Majumdar was the Associate Laboratory Director for Energy and Environment at Lawrence Berkeley National Laboratory and a Professor of Mechanical Engineering and Materials Science and Engineering at the University of California, Berkeley. His highly distinguished research career includes the science and engineering of energy conversion, transport, and storage ranging from molecular and nanoscale level to large energy systems. In 2005, Majumdar was elected a member of the National Academy of Engineering for this pioneering work.

Majumdar has also served on the advisory committee of the National Science Foundation's engineering directorate, was a member of the advisory council to the materials sciences and engineering division of the Department of Energy's Basic Energy Sciences, and was an advisor on nanotechnology to the President's Council of Advisors on Science and Technology. He received his bachelor's degree in Mechanical Engineering at the Indian Institute of Technology, Bombay in 1985 and his Ph.D. from the University of California, Berkeley in 1989.