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Dr. Arun Majumdar

Director, Precourt Institute for Energy, Jay Precourt Professor, Professor of Mechanical Engineering and of Photon Science and, by courtesy, of Materials Science and Engineering

Dr. Arun Majumdar is the Jay Precourt Provostial Chair Professor at Stanford University, a faculty member of the Departments of Mechanical Engineering and Materials Science and Engineering (by courtesy) and co-Director of the Precourt Institute for Energy, which integrates and coordinates research and education activities across all seven Schools and the Hoover Institution at Stanford. He is also a faculty in Department

Photon Science at SLAC.

Dr. Majumdar's research in the past has involved the science and engineering of nanoscale materials and devices, especially in the areas of energy conversion, transport and storage as well as biomolecular analysis. His current research focuses on electrochemical and thermochemical redox reactions that are fundamental to a sustainable energy future, multidimensional nanoscale imaging and microscopy, and a new effort to re-engineer the electricity grid using data science, including deep learning techniques.

In October 2009, Dr. Majumdar was nominated by President Obama and confirmed by the Senate to become the Founding Director of the Advanced Research Projects Agency - Energy (ARPA-E), where he served till June 2012 and helped ARPA-E become a model of excellence and innovation for the government with bipartisan support from Congress and other stakeholders. Between March 2011 and June 2012, he also served as the Acting Under Secretary of Energy, enabling the portfolio that reported to him: Office of Energy Efficiency and Renewable Energy, Office of Electricity Delivery and Reliability, Office of Nuclear Energy and the Office of Fossil Energy, as well as multiple cross-cutting efforts such as Sunshot, Grid Tech Team and others that he had initiated. Furthermore, he was a Senior Advisor to the Secretary of Energy, Dr. Steven Chu, on a variety of matters related to management, personnel, budget, and policy. In 2010, he served on Secretary Chu's Science Team to help stop the leak of the Deep Water Horizon (BP) oil spill.

After leaving Washington, DC and before joining Stanford, Dr. Majumdar was the Vice President for Energy at Google, where he created several energy technology initiatives, especially at the intersection of data, computing and electricity grid.

Prior to joining the Department of Energy, Dr. Majumdar was the Almy & Agnes Maynard Chair Professor of Mechanical Engineering and Materials Science & Engineering at University of California–Berkeley and the Associate Laboratory Director for energy and environment at Lawrence Berkeley National Laboratory. He also spent the early part of his academic career at Arizona State University and University of California, Santa Barbara.

Dr. Majumdar is a member of the National Academy of Sciences, National Academy of Engineering and the American Academy of Arts and Sciences. He served as the Vice Chairman of the Advisory Board of US Secretary of Energy, Dr. Ernest Moniz, and was also a Science Envoy for the US Department of State with focus on energy and technology innovation in the Baltics and Poland. He serves on the Science Board of Oak Ridge National Laboratory and is a member of the International Advisory Panel for Energy of the Singapore Ministry of Trade and Industry. He serves as an advisor to Envision Energy, Breakthrough Energy Ventures, First Light Fusion, the New Energy Group of Royal Dutch Shell, Lime Rock New Energy, Autogrid and Clearvision Ventures. He is a member of the Board of Directors of two non-profits focused on research and development: Activate.org and the Electric Power Research Institute.

Dr. Majumdar 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.

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