

Pradeep Haldar**Professor and Head, NanoEngineering Constellation**

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As worldwide demand for energy surges at an ever-increasing rate, there is a new urgency to improve the efficiency and sustainability of power generation technologies. One of the keys to addressing this challenge is innovation, and some of the most promising solutions are occurring at the smallest scale - the *nanoscale*. The field of alternative energy provides a platform for some of nanotechnology's most exciting contributions. These include Solar Cells, Fuel Cells, Energy Storage Devices, Thermoelectrics etc., that already utilize nanoscale processes, materials and devices utilized in semiconductor manufacturing. Moreover, discoveries in nanotechnology have led to what many consider the next generation technology. Through nanotechnology innovations, we can improve the efficiency of the technologies we have, discover new ways to achieve breakthrough approaches and produce even cheaper devices. In response to these needs, the University at Albany-SUNY has created, the "College of Nanoscale Science and Engineering (CNSE)," a fully-integrated, comprehensive education, research and development resource to provide the science and technology base for the emerging field of nanotechnology. The Energy and Environmental Technology Applications Center (E2TAC) at CNSE oversees and coordinates a multitude of energy related technologies focused nanotechnology development, deployment, and commercialization.

Bio:

Dr. Pradeep Haldar serves as Founding Professor and Head of the NanoEngineering Constellation at the College of Nanoscale Science & Engineering (CNSE) at the University at Albany, (SUNY). He is also Director of the Energy and Environmental Technology Applications Center at the College. At CNSE he has been actively involved in applying and integrating nanotechnology related innovations to solve engineering challenges related to energy efficiency, photovoltaic devices, and ultracapacitors. He serves as Founder, Board Member and Executive Director of New Energy New York Consortium and Chair, DOE NREL's Clean Energy Alliance. He has led and organized several initiatives including Tech Valley Energy Forum, NY Loves Energy, and the Solar Initiative of New York.

Prior to joining the University at Albany, Dr. Haldar founded and served as General Manager and Director of Technology of rapidly growing SuperPower, a new subsidiary of Intermagnetics (now Philips). He has over 20 years of diverse technical, research, development and management experience. He is senior member of IEEE and other professional organizations including NYAS, MRS, TMS and AIP. Dr. Haldar is the author or co-author of over 250 reviewed technical papers and conference proceedings and has three patents issued and four pending. Dr. Haldar is a Fellow of the Institute of Physics and recipient of the President's Excellence in Research award and the Business Review's 40 under Forty upcoming individuals in New York's Capital Region. He has

played a key role in developing New York State's Hydrogen Roadmap, Superconductivity outreach programs, and the New York State Solar Roadmap. Dr. Haldar has his Ph.D. in from Northeastern University and an MBA from Rensselaer Polytechnic Institute.