WPI MATERIALS SCIENCE & ENGINEERING

Diran Apelian

Professor Alcoa-Howmet
Professor of Engineering
Founding Director of the Metal Processing Institute (MPI)

The Future of Work and the Worker – The Role of Materials Science and Engineering

In this presentation I will introduce my own work from an overview perspective with an introduction to my career. I will focus on what matters to me most and why?

Secondly, I will review the opportunities and challenges we face in materials science and engineering as we are facing the 4th Industrial revolution; specifically, I will focus on the Future of Work and the Worker.

Wednesday, Nov 20, 2019
12:00 Noon
WB 229

Pratap M. Rao

Associate Professor
Department of ME

Materials and Processes for Solar Energy Conversion and Printed Electronics

In the first part of this talk, I will describe approaches for creating efficient photo-electrochemical materials by controlling their shape, size and composition at the nanoscale, in a manner that balances light absorption, charge transport, and surface reaction processes. Such materials and processes could be the basis for economical, large-scale future technologies for harvesting solar energy, producing renewable fuels and chemicals, and decontaminating water. In the second part of this talk, I will describe emerging and future directions in nanomaterials and processes for advanced sensors and printed electronics, which could be the basis for future wearable devices and smart materials.