

# Department of Physics and Materials Science



## SEMINAR

The Story of Light

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**Abstract:** We cannot help but be fascinated, inspired, and moved by light. Whether we are trying to make sense of the Sun's rising and setting, the movements of celestial bodies, or how certain colors, reflections, and refractions invoke a sensory reaction in each of us, light is a phenomenon that never ceases to provoke wonder and curiosity. This quest to define light has sparked some of history's finest minds, starting with the origins of optics in Euclid's Ancient Greece and running as a glowing and unbroken thread throughout the ages. The Enlightenment revealed in its findings revolving around light, the Sun, and the stars, with Newton's light particle theory coming up against Huygens and Young and their notions of light waves. Between them, the foundations for a modern understanding of this most essential of elements were formed, and our knowledge of light grew ever brighter, its mysteries brought further out from the shadows with the culmination in Maxwell's equation. The talk will take the audience through the journey of early understanding of light through the myriad of controversies and figures whose ardent quest for knowledge shaped forming the present-day knowledge of light in the form of Electromagnetic Waves. However, Who is seeing the light is still a hard problem for Science!

**Bio:** Dr. Sanjay Mishra joined the Department of Physics at the University of Memphis in 1999. He has been consistently productive in research, instruction, and service to the University of Memphis (UoM) since 1999. Dr. Mishra initiated an active multidisciplinary research program in materials science at the UoM.

Before receiving postdoctoral experience from the Lawrence Berkeley National Laboratory, the University of California-Berkeley at the Advanced Light Source Synchrotron Facility, he received his Ph.D in Physics from the University of Missouri-Rolla, MO, MS from Pittsburg State University, Pittsburg, KS, MSc. from the South Gujarat University, Surat, India and Post Graduate Diploma in Space Sciences from Gujarat University, Ahmedabad, India.

Dr. Mishra's research work focuses on magnetic nanomaterials and nanocomposites (exchange biased and exchange spring-nanocomposites), magnetic nanocomposites for drug delivery, carbon nanospheres as template for the growth of nanostructures, nanorods for microwave devices, hard coating materials, bioimplantable polymers, and solar energy related materials.

## YOU ARE INVITED!

Friday Apr. 7<sup>th</sup>, 3 - 4 PM Manning Hall 201



Driven by doing.