

Department of Physics &amp; Astronomy

**Dr. Kattesh Katti**

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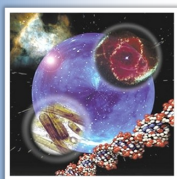
Friday, Apr,6 2012

Time: 3:00 p.m. -4:00 p.m.

BB 3.04.18

**Green Nanotechnology in molecular imaging and therapy implications in nanomedicine**

As the nanotechnology revolution unfolds, its impacts and implications are being felt in a vast domain of fields ranging from medicine, hygiene, consumer-electronics to agricultural productivity and environmental restoration. Every technological milestone in human history, right from the discovery of light bulb from Thomas Edison to more recent space explorations and information technologies, has produced a myriad of consumer products reaping materialistic benefits in bringing about a paradigm shift in the quality of human life. If the sophistications of nanotechnology have to reach human lives across the globe, it would require connectivity between the highly complicated nanodomains of various materials with constituents and various vectors that human beings most commonly use on a day to day basis. 'Green Nanotechnology' is poised to bring about this important connectivity with tremendous futuristic power capable of reaching out to even the most common citizens of this planet—just as how agricultural technologies have made their way into human lives. Green nanotechnology, as conceived and developed by Kattesh V. Katti at the University of Missouri, uses agricultural produce such as Soy, or other green products from mother nature such as Tea, or herbs including Cinnamon or Cumin for the production of nanoparticles. These ingenious discoveries utilize chemical properties of various phytochemicals that are uniquely found only in agricultural produce (or in herbs) to chemically reduce metallic salts to convert them into nanoparticles as the entire production process eliminates the intervention of toxic chemicals.

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