**Overview on Nano-bio research @ CHARUSAT**

**Ramesh V Upadhyay**

P D Patel Institute of Applied Sciences, Charotar University of Science and Technology, Changa 388421, India

rvu.as@charusat.ac.in

**Abstract.** Nano-bio research has gained a tremendous momentum in the last few decades, mainly due to the development in synthesis of novel nanoparticles as well as new technology based on nanoparticles. Keeping the pace in this field at CHARUSAT, we have initiated the research in the field Nanoscience and its applications. In this talk a glimpse of the research activities carried out in this field @ CHARUSAT will be given. The research covers the areas in different fields like physics, chemistry, biology, pharma and engineering applications. The university main focus is to get expertise in the synthesis of magnetic fluids and its applications in different fields. In additions, the university also focuses on the synthesis of novel magnetic nanoparticles using different routes. In the application side, few applications in the field of nano-bio as well as nano-engineers are developed which will be presented in the talk along with new collaborative avenues in this field.

**Ramesh V Upadhyay, Professor, received** his PhD from Saurashtra University, Rajkot, India in the year 1985. He has published more than 175 papers in International journals, 2 book chapters; more than 100 presentations at National and International conferences. He was a Commonwealth Academic Staff fellow at the University of North Wales, Bangor during 1991-1992 He was a STINT-Visiting Professor at KTH, Sweden. At present, major thrust area of research is focused on synthesis of MR and magnetic fluids for industrial applications like, dampers, gearbox coolant, etc. He has 4 patents to his credit.