Dr. Dipak Maity, Assistant Professor, Department of Mechanical Engineering, SNU, has received the Best Paper Presentation Award at the International Conference on Nanoscience and Nanotechnology (ICONN) 2013 for his paper entitled “Superparamagnetic Iron Oxide Nanoparticles for Theranostics Application”. The Conference was held during 18-20 March 2013 at the SRM University, Chennai.

Explaining about the paper Dr. Maity said, “We have synthesized hydrophillic Superparamagnetic Iron Oxide (SPIO) Nanoparticles (NPs) by one-pot facile chemical synthesis route and in situ functionalized with organic coating molecules such as tri(ethylene glycol) and terephthalic acid to form core–shell nanostructure. Our results showed that the as-prepared SPIO NPs are very promising candidate for clinical MRI as well as for magnetic hyperthermia treatment of tumor and thus, could be used for cancer theranostic (diagnosis as well as therapy) applications.”

Recently, he has reported his research on synthesis of novel SPIO nanoparticles based MRI contrast agent which has the highest $r_2^*$ relaxivity in comparison to the other reported SPIO based contrast agents. D. Maity et al. “Surface Design of Core-Shell Superparamagnetic Iron Oxide Nanoparticles Drives Record Relaxivity Values in Functional MRI Contrast Agents” Chem. Commun. 48 (2012) 11398-11400.

He has also filed this research work for a Patent as mentioned below: