Nano Scale Antenna For Terahertz Radiation

Jensi Jacinth Sellam S[(1)], Jemima Priyadarshini S [(2)]
(1) PG Scholar, Karunya University, Coimbatore
(2) Assistant Professor/Advisor, Karunya University, Coimbatore
jensirajan@gmail.com,mailjemi@gmail.com

Nano Antenna vibrantly emerges in research for its tremendous merits. Nanoparticles, inspite of its minute structural features, exhibits a wide scattering field. An antenna designer can tune and obtain desirable scattering field by placing the Nanoparticle on a Nanoscale. This paper proposes a novel approach to design a paraffin material based Nano structure excited through a line feed and the scattering field is observed. It also extends by placing the nano particles in different positions in a linear fashion. Directivity is improved by increasing the number of nano particles. The frequencies 2.5 and 5 THz is suitable for astronomical observations. Similarly, the frequencies 8 and 10 THz is used in many biosystem applications such as biomedicine, biophysics, biochemistry etc.