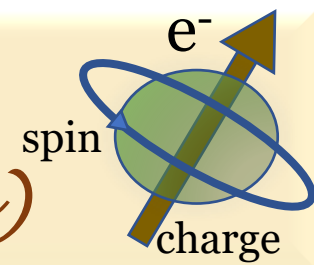




W2S Seminar

(Webinar series on Spintronics)



Current driven Spintronic Devices

Speaker:

Chandrasekhar Murapaka
Department of Material Science and
Metallurgical Engineering
IIT Hyderabad

Date and time:

**30.07.2020 at
6.30 pm**

Via

Google meet

Abstract

Spintronics deals with the spin degree of freedom of the electron in addition to the charge. Spintronic devices are attractive due to their unique properties such as non-volatility, fast switching and radiation hardness. In this talk, I will discuss about the current driven magnetization dynamics via spin transfer torque and spin-orbit torque effects in ferromagnetic nanostructures. At first, I will present the domain wall based memory and programmable logic devices. Later, I will discuss about the realization of magnetic tunnel junctions for spin torque nano-oscillators and demonstration of microwave signal generation and modulation for wireless communication application. Finally, our recent observations on interconversion between charge current and spin current in ferromagnetic/non-magnetic heterostructures will be discussed.

If interested to attend then please visit <https://www.niser.ac.in/w2s-seminar/index.php>