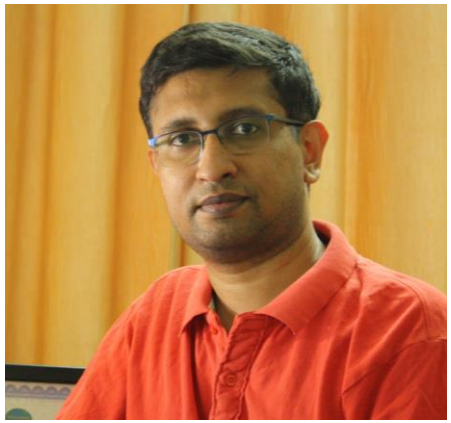
W2S Seminar
(Webinar series on Spintronics)



Molecular Crane-Pulley Response at Magnetic Surface

Speaker:
Prof. Karthik V. Raman
Tata Institute of Fundamental Research, Hyderabad

Date and time:
08.10.2020 at
6.30 pm
Via
Zoom

Abstract

Interface-interaction study between organic molecules and ferromagnetic (FM) surfaces offer unmatched potential in designing hybrid spintronic devices. In this talk, I will provide evidence of the strong molecular interaction force leading to the phenomena of crane-pulley effect – whereby the strong π − d interface hybridization induces a combination of surface magnetic hardening and weakening of interlayer magnetic exchange that decouples the surface molecule-FM hard magnetic layer from the soft switchable FM layer underneath. Such a response in our Fe/metal-phthalocyanine molecule bilayer device demonstrate a robust monolayer molecular exchange-bias effect. If time permits, I shall also discuss the possibility to realize an unconventional spin-glass response in these bilayer systems.

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