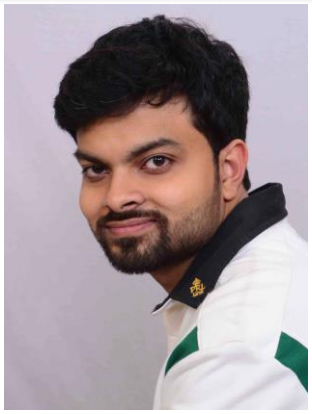
W2S Seminar
(Webinar series on Spintronics)



Neuromorphic Computing using Spintronics

Speaker:
Dr. Debanjan Bhowmik,
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Date and time:
31.05.2021 at
03.00 pm (IST)
i.e. 11.30 am CET

Abstract

Heavy-metal-and-ferromagnet-heterostructure-based spintronic devices exhibit various interesting properties which open up possibilities for using them for neuromorphic computing — a brain-inspired computing paradigm which often uses in-memory-computing architectures and spike-based information flow for artificial-intelligence applications. In this talk, I will present my group's research on three aspects of spintronics-based neuromorphic computing: (a) Use of domain-wall motion for non-volatile analog weight storage, to be used as synapse in in-memory computing (b) Use of domain-wall motion as an integrator for mimicking spiking neurons (c) Use of the synchronization dynamics of spin Hall nano oscillators for pattern recognition.

To attend the lecture please visit
Zoom link: https://zoom.us/j/94354995818

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