# CURRICULUM VITAE

Name-          Dr. Saikat Debnath

Designation –    Assistant Professor (Level 11)

Qualification-    Ph. D.

Area of Expertise – Computational Material Science, Magnetic and Electronic Properties of Oxides and Chalcogenides, Computer Vision and Object Tracking

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## Education

Ph. D          S.N. Bose National Centre for Basic Sciences

M.Phil         NA

M.Sc           IIT Bombay

B.Sc           Ramakrishna Mission Vidyamandira, Belur Math

Intermediate    Sudarshanpur Dwarika Prashad Uchcha Vidyachakra, Raiganj

High School     Sudarshanpur Dwarika Prashad Uchcha Vidyachakra, Raiganj

## Professional Experience-

## Publication –

|   | Title | Name of Journal | ISSN/ISBN |
|---|-------|-----------------|-----------|
| 1 | Pitfalls of exchange–correlation functionals in description of magnetism: Cautionary tale of the FeRh alloy | Computational Materials Science 248, 113561 | 1879-0801 |
| 2 | Tailoring Magnetic Anisotropy in Ultrathin Cobalt by Surface Carbon Chemistry | Advanced Electronic Materials 10 (4), 2300579 | 2199-160X |
| 3 | Ferrimagnetic cluster formation due to oxygen vacancies in $CaFe_2O_4$ | Physical Review B 98 (14), 144404 | 2469-9969 |
| 4 | Structural distortions in monolayers of binary semiconductors | Physical Review B 97 (4), 041404 | 2469-9969 |
| 5 | Structure-property relationship of $\pi$-extended boron-dipyrromethene derivatives towards optoelectronic applications | Dyes and Pigments 142, 558–571 | 1873-3743 |
| 6 | Electronic structure of $Mn0.25TaS_2$ | Journal of Electron Spectroscopy and Related Phenomena 208, 74-77 | 1873-2526 |
| 7 | $NaosO_3$: A high Neel temperature 5 oxide | Physical Review B 89 (13), 134416 | 2469-9969 |
| 8 | Microscopic model for the strain-driven direct to indirect band-gap transition in monolayer $MoS_2$ and ZnO | Physical Review B 89 (11), 115201 | 2469-9969 |
| 9 | The role of passivants on the stoichiometry of CdSe and GaAs nanocrystals | The Journal of Physical Chemistry C 117 (42), 21981-21987 | 1932-7455 |

**<u>Seminar</u>**

| Type of Participation | Status | Title of Paper |
|---|---|---|