



## Dr. Tanmay Das

+91-8280144894

Email:

tanmayd@iitbhilai.ac.in

## TEST SCORES

**JEST-2018**

Score: AIR 131

**GATE 2018**

Score: AIR 1510

## DISCLAIMER

I hereby affirm that the provided information is accurate and true to the best of my knowledge.

Accomplished PhD in Physics from the Indian Institute of Technology, Bhilai, with specialized research in the utilization of 2D materials and ZnO for electronic and optoelectronic applications. Adept in first principle calculations and experimental techniques to enhance fundamental understanding in these areas. Currently an Assistant Professor (Guest Faculty) at Dharanidhar University, Keonjhar, with 1 year and 9 months of experience in teaching undergraduate and postgraduate students.

## EDUCATION

### Indian Institute of Technology, Bhilai

Doctor of Philosophy - PhD,

Condensed Matter and Materials Physics (CGPA: 9.65)

Thesis Title: Optoelectronic properties of ZnO based two-dimensional hybrid materials

*Jun 2018 - Feb 2023*

### Sambalpur University, Sambalpur

Postgraduate Degree, Physics (OGPA: 7.56)

*Jun 2015 - Jun 2017*

### Fakir Mohan University, Balasore

Graduation, Physics (Honours: 79.3%)

*Jun 2012 - Jun 2015*

## TEACHING EXPERIENCE

### Lecturer (Guest faculty)

- Department of Physics, SBR Govt Autonomous Women's College, Berhampur.

*Sept 2022 – April 2023 (00Y 07 M)*

Guided four groups of students for BSc final year projects and also trained students for weekly seminars along with teaching.

### Assistant Professor (Guest faculty)

- Department of Physics, Fakir Mohan University, Balasore.

*May 2023 – June 2024 (01Y 01M)*

- Department of Physics, Dharanidhar University, Keonjhar.  
July 2024 - Continued

## PUBLICATIONS

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1. Distinguishing strain, charge and molecular orbital induced effects on the electronic structure: graphene/ammonia system, T Das and S Vempati, *J. Phys.: Condens. Matter*, vol 32, 455501 (2020)
2. Electrical Conductivity for quasiparticle graphene-like system, T Das, D Pradhan, A Tamang, J Dey, S Ghosh and S Vempati, *Springer Proceedings in Physics*, vol 269, 187 (2021)
3. Quantum Hall Conductivity in Degenerate Electron Gas in Graphene-Like System D. Pradhan, T. Das, A. Tamang, J. Dey, S. Ghosh & S. Vempati *Springer Proceedings in Physics*, vol 269, 195 (2021)
4. Flow of Medium Constituent with Charged Magnetic Particles in Presence of External Magnetic Field S. Debata, T. Das, J. Dey, D. P. Singh, S. Vempati & S. Ghosh *Springer Proceedings in Physics*, vol 269, 195 (2021)
5. Optimizing Optoelectronic Performance: Impact of Polar-Terminated Zinc Oxide on MoS<sub>2</sub> Van der Waals Heterostructure, T Das and S Vempati *J. Phys.: Condens. Matter*, vol 36 385002 (2024)
6. Transiently controlled emission from ZnO surface, T Das and S Vempati, *Nanotechnology*, vol 35 435501 (2024)