GOVERNMENT GENERAL DEGREE COLLEGE, SINGUR

ACADEMIC PROFILE

DR. SANTU DAS
Assistant Professor in Physics (W.B.E.S.)
M.Sc., Ph.D.
Email: santuwbes@gmail.com

- **Specialization/ Subject:** Physics
- **Date of joining in this college:**18.02.2015
- **Total teaching experience in college level:** 11 years
- **Area of research:** Spectroscopy, Quantum Computation.
- **Title of Ph.D. thesis (if any):** Conformational landscape in tetrahydroisoquinoline and its clusters with water and ammonia.
- **Research guidance (if any):** Nil
- **Research projects [completed / ongoing] (if any):** Nil
- **List of publications:**

A. Published papers in Journals:

1. **S. Das**, L. Das, A. Chakraborty, Conformers of 1,2,3,4 –tetrahydroisoquinoline in S0 and S1: An analysis through Potential Energy Surface, Hardness Principles and Vibrational Spectroscopy, *J. Mol. Struct*. **1207**, 127836 (2020). https://doi.org/10.1016/j.molstruc.2020.127836 **(I.F- 3.841).**
2. **S. Das,** A. Chakraborty (2021) Conformer selective monohydrated clusters of 1,2,3,4 –tetrahydroisoquinoline in S_0: I-Potential energy surface studies, vibrational signatures and NBO analysis, *J. Mol. Struct*. 1225, 129177 (2021), https://doi.org/10.1016/j.molstruc.2020.129177 **(I.F- 3.841).**
3. **S. Das,** A. Chakraborty (2023), Computational investigation of the conformer selective complexes of 1,2,3,4-tetrahydroisoquinoline: Ammonia (THIQ: NH_3) in S_0, *J. Mol. Struct*. 1274, 134475 (2023). https://doi.org/10.1016/j.molstruc.2022.134475 **(I.F- 3.841).**
4. **S. Das,** A. Chakraborty (2023) Non-covalent interactions in the monohydrated complexes of 1,2,3,4–tetrahydroisoquinoline. *J Mol Model.* 29, 37 (2023). https://doi.org/10.1007/s00894-022-05438-8 **(I.F- 2.172).**

5. N. Biswas, G. Dey, L. Das, N. Ruidas, **S. Das**, A. Chakraborty, Geometry, vibrations and torsional potential of 1-phenyl naphthalene: A combined *ab-initio* and experimental study, *J. Mol. Struct*. **1296**, 127836 (2024). https://doi.org/10.1016/j.molstruc.2023.136844 **(I.F- 3.841).**

B. Published papers in Seminars/Symposia/Conferences:

1. **S. Das**, A. Chakraborty, Theoretical studies on molecular structural conformations and monohydrated clusters of tetrahydroisoquinoline; NSCMPLA 2019, 16-18 January, 2019; The University of Burdwan.
2. **S. Das**, A. Chakraborty, Theoretical studies on non-covalent interaction in tetrahydroisoquinoline-water clusters; NSCMPLA 2020, 13-14 February, 2020; The University of Burdwan.

C. Published Books / Chapters in Books: nil

D. Participation in Seminars/Symposia/Conferences/Workshops:

Title of the invited lecture /paper presented (oral/poster)	Title of Conference /Seminar with date	Organized by	Level
Theoretical studies on molecular structural conformations and monohydrated clusters of tetrahydroisoquinoline	NSCMPLA 2019, 16-18th January, 2019	Department of Physics, The University of Burdwan.	National
Theoretical studies on non-covalent interaction in tetrahydroisoquinoline-water clusters.	NSCMPLA 2019, 13-14th February, 2020.	Department of Physics, The University of Burdwan.	National
Influence of intramolecular hyperconjugative charge transfer on molecular conformation of tetrahydronaphthalene and tetrahydroisoquinoline.	International Conference on Research in Emerging Advanced Materials and Spectroscopy (ICREAMS-2024)	Indian Spectro Physics Association (ISPA), Chennai, India.	International

- **Participation in OP/RC/FIP/FDP:**

Name of the Course	Place	Duration	Sponsoring Agency
Refresher Course in Recent Advancement in Physical, Chemical & Mathematical Sciences.	UGC-HRDC, The University of Burdwan	12.02.2020 -25.02.2020	UGC
On-Line Faculty Induction Programme	UGC-HRDC University of North Bengal	25.11.2020-24.12.2020	UGC
Refresher Course in Basic Science.	MMTC- Rani Durgawati Vishwavidyalaya, Jabalpur, M.P.	19.08.2024-31.08.2024	UGC
MOOC: An Introduction to Lasers and Laser Systems.	Online (Swayam)	Jan-Apr 2026 (12 weeks)	AICTE

- **Membership of Learned Societies/ Editorial Boards, etc. (if any):**

- **Patents (if any):** Nil

- **Awards (if any):**

1. Qualified National Eligibility Test (NET) twice (LS in 2012 and CSIR-JRF in 2014).
