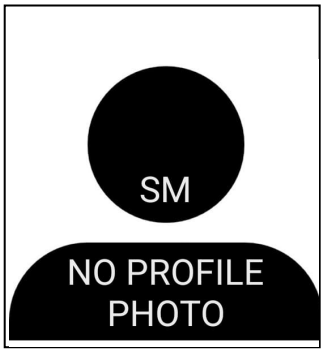
FACULTY MEMBERS' ACADEMIC PROFILE



1. **Name of the Faculty member:** Soumyabrata Mondal
2. **Designation:** Assistant Professor (WBES)
3. **Qualification:** Ph.D.
4. **Specialization:** Astronomy & Particle Physics
5. **E-mail address:** *soumyabrata_mondal@yahoo.in*
6. **Date of Joining in W.B.E.S.:** 09.09.2010
7. **Date of Joining in this College:** 07.01.2025
8. **Total Teaching experience at the college level:** 15 years
9. **Research interests:** Astronomy & Astrophysics
10. **Title of thesis (Ph.D.) with year:** Some studies on electrification and plasma processes in the solar planetary atmosphere from reception of radio signals (2015)
11. **Research guidance:** One Ph.D. student (ongoing)
12. **Research Projects (Completed and ongoing):**

Name of the Funding Agency	*Title*	*Period*	*Amount*
UGC	Some studies on electrification and plasma processes in the solar planetary atmosphere from reception of radio signals and model studies	2015-2017	1,40,000/-

13. **List of publications:**

A) Published papers in Journals:

- **Mondal, S**. (2024). Statistical Signature and its Theoretical Implication in Hot Jupiter Population. Journal of Scientific Research, 16(1), 81-87.
- **Mondal, S**. (2023). Observational Evidence of Bimodal Distribution in Hot Jupiter Population. Indian Journal of Science and Technology, 16(40), 3471-3478.
- **Mondal, S**. (2022). Classification of Hot Jupiter Population through Statistical Framework. Journal of Scientific Research, 14(2), 513–519.
- **Mondal, S**. (2022). Intrinsic Restraining Factors in Precise Extraterrestrial Radio Signal Rception. ICTACT Journal on Microelectronics. 8(4), 1476- 1479.
- **Mondal, S**. (2020). Introduction of Wavelet Analysis in Search for Structural Information within Jovian Radio Signal. International Journal of Advanced Research in Engineering and Technology, 11(9), 1388-1393.
- **Mondal, S**. (2020). Precise Radio Signal Reception from Other Planetary Systems.

International Journal of Advanced Research in Engineering and Technology, 11(7), 976-981.

- **Mondal, S**. (2017). Gravitational Time Delay Model in Jovian Radio Signal Reception. Journal of Environmental Science, Computer Science and Engineering & Technology, 6(3), 345-349.
- **Mondal, S**., & Bhattacharya, A. B. (2015). Climatic variance and its effects on decametric Jovian signal reception at a high altitude station Darjeeling. Indian Journal of Radio & Space Physics, 44(3), 126-131.
- **Mondal, S**., & Bhattacharya, A. B. (2014). Importance of Structural Property and Wavelet Analysis for Detecting Radio Solar Bursts. International J. Electronics & Communication Technology, 5 (2), 60-62.
- Bhattacharya. A. B., **Mondal, S**., & Raha. B. (2014). Planetary Formation and Migration of Hot Jupiters: Possibility of Harboring Earth-Like Planets, International Journal of Research in Sciences, 2(2),16-27.
- Bhattacharya. A. B., **Mondal, S**., & Raha. B. (2014). Cloud Electrification And Lightning Processes: A Comparison of Four Solar Planetary Systems from Models consideration and
- reported data of visible clouds, metals and hydrogen compounds. International J. Electronics & Communication Technology, 3 (2), 54-58.
- Bhattacharya. A. B., & **Mondal, S.** (2013). Probability of reception of Jovian bursts as derived from Io-phase and the location of Central Meridian Longitude. International J. Electronics & Communication Technology, 4, 115-117.
- Bhattacharya. A. B., **Mondal, S**., & Halder, D. (2012). A comparative study on the modeling of dynamics of the Jovian atmosphere, International Journal of Advances in Science and Technology 5(6), 16-26.
- Bhattacharya, B., **Mondal, S**., Pandit, J., Halder, D., Sarkar, A., & Raha, B. (2012). Detection of Jovian Radio Bursts at High Altitudes. IJEST, 4(06), 3029-3038.

B) Conference Proceedings:

- "Importance of fixed tuned receiver in solar observation" as Book Chapter (pp.172-183) in Nonlinear Dynamics and its Applications (978-81-944611-2-8) published by Book Centre, India (2017).
- "A theoretical approach towards time delay calculation for Jovian signal reception" as Book Chapter (pp.172-183) in Nonlinear Dynamics and its Applications in Physical and Biological Sciences (978-81-944611-0-4) published by Book Centre, India (2017).

14. Membership of Learned Societies/ Editorial Boards, etc.:-

15. Patents: -

16. Awards: -

17. Other notable activities:-

18. Participation in

A) Seminars/Symposia/Conferences/Workshops:

Title of the invited lecture /paper presented	*Title of Conference /Seminar with date*	*Organized by*	*Level*
Nonlinear Characteristics in Structural and Magnetic Properties of $TbPt_3$	Nonlinear Dynamics and its Applications in Physical and Biological Sciences, 2023	Durgapur Govt. College	International
Diamagnetism in YPt_3B compound	3rd RSTC (Southern Region), 2023	DSTBT, Govt. of West Bengal	State
Characterization of Intrinsic Relation between Different Solar Activities with Observed Solar Bursts by a Fixed Tuned Receiver	2nd International Conference on Applied Sciences, 2022	SCMS School of Engineering and Technology	International

Prospect in Radio Astronomy	Invited lecture in Physics colloquium series "Prospect in Radio Astronomy", 2022	KSS College, Munger University	University
Lightning activities in Jovian Atmosphere	Recent Developments in Nonlinear Dynamics and its Applications, 2018	Durgapur Govt. College	International
Structural & Magnetic properties of $TbPt_3$	3rd RSTC (Southern Region) , 2018	DSTBT, Govt. of West Bengal	State
Time delay estimation for Jovian signal reception from Earth based observatories	National Space Science Symposium, 2016	ISRO, Trivandrum.	National
Promises in Higher education	National seminar on Higher education in India: Critical issues & challenges, 2016	Doranda College	National
Migration of vortices in Jovian atmosphere	International Conference on Nonlinear Dynamics and its Applications in Physical and biological Sciences,2014	Darjeeling Govt. College	International
Importance of Structural Properties in Radio Observation	National conference on Nonlinear Physics and its applications, 2013	Darjeeling Govt. College	National
Correlation between Sun Spot and Solar Bursts: Establishing Importance of a Fixed Tuned Receiver in Solar Observation with a Case Study	National Conference, N3CD-2013	JIS, Kalyani.	National

B) OP/RC:

Name of the Course	*Place*	*Duration*	*Sponsoring Agency*
Refresher Programme on Nano-Science, Nano-Technology and its Application	HRDC, Burdwan University	01.12.2022 to 14.12.2022	UGC
Introduction to Quantum Physics & its Applications	Online (Swayam)	2019-2020 (16 weeks)	AICTE
Refresher Programme	Ranchi University	02.09.2016 to 22.09.2016	UGC
Orientation Programme	University of Calcutta	25.08.2014 to 20.09.2014	UGC