

SAYAK CHAKRABORTY

INSPIRE-Junior Research Fellow, Indian Centre for Space Physics,
Kolkata, INDIA



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Present Affiliation:

Designation: Junior Research Fellow

Name of Institute: Indian Centre for Space Physics

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Financial Support: DST-INSPIRE Fellowship (IF200266)

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Topic of Research: Study of the lower ionospheric response time delay from multiple aspects during different solar energetic events

Personal Details:

Father's Name: Mr. Debasish Chakraborty

Nationality: INDIAN

Date of Birth: 20th February, 1997

🏠 *Permanent Residential Address:* Amulya Apartment, 1/15 Naskar Para Road, Santoshpur, Jadavpur, Kolkata, West Bengal, PIN 700075

Awards and Achievements in Academics:

- Gold Medallist from Amity University Kolkata for standing 1st in academic performances in M.Sc. Applied Physics (Batch: 2018-2020).
- Awarded INSPIRE fellowship (IF200266) from Department of Science and Technology (DST), Government of India, for pursuing PhD in India.
- Awarded 'Best Student in Elements of Astronomy and Astrophysics', based on the performance in the field during pursuing M.Sc. Applied Physics, from Amity University Kolkata.

Publications:

- *"Quantitative analysis of lower ionospheric response time delay associated to the solar flares"*, **Sayak Chakraborty**, Kumar Aryan, Torsha Roy, Subrata Kumar Midya, and Tamal Basak. *Acta Geodaetica et Geophysica* (Publisher: Springer), 1-13, 2022.
(DoI: [10.1007/s40328-022-00390-8](https://doi.org/10.1007/s40328-022-00390-8))
- *'Numerical analysis of electron density and response time delay during solar flares in mid-latitudinal lower ionosphere'*, **Sayak Chakraborty**, Tamal Basak, 'Astrophysics and Space Science' (Publisher: Springer), Vol 365, Article No. 184, 2020.
(DoI: [10.1007/s10509-020-03903-5](https://doi.org/10.1007/s10509-020-03903-5))

Academic Profile:

Details	Degree	School/ College/ Institute	Board/ University	Year/ Batch	Remarks
PG	M.Sc. Applied Physics	Amity Institute of Applied Sciences	Amity University Kolkata	2018-2020	Gold Medallist (1 st in Academic)
UG	B.Sc. Honours Physics	Dinabandhu Andrews College	University of Calcutta	2014-2018	
10+2	Higher Secondary Examination	Majilpur J. M. Training School	West Bengal Council of Higher Secondary Education (WBCHSE)	2014	
10 th	Madhyamik Examination	Majilpur J. M. Training School	West Bengal Board of Secondary Education (WBBSE)	2012	

Previous Research Experiences:

- **January 2020 – June 2020:** Completed Major Project as a part of the final semester course curriculum of M.Sc. (Applied Physics), titled, '*Theoretical Analysis of Electron Density and Response Time Delay During Solar Flares in Mid-latitudinal Region of Lower Ionosphere*', under the supervision of Dr. Tamal Basak, Department of Physics, Amity University Kolkata.
 - **May 2019 – July 2019:** Completed 'Summer Internship Project', titled, '*Phase Transition in Colloidal Monolayers with Honeycomb Symmetry: Exploring the Statistical Mechanics of Pure and Doped Low-Dimensional Exotic Systems*' under the joint supervision of Dr. Kaustuv Das, Department of Physics, Jadavpur University and Dr. Ankush Sengupta, Department of Physics, Amity University Kolkata.
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Research Interests:

Effects of solar energetic events on lower ionosphere, analysing the sub-ionospheric radio signal propagation effect during solar solar energetic events

Workshop, Seminar and Science Fair:

- Participated in seminar titled, '*1st Satyendra Nath Bose Memorial Lecture-2022 on "The Magic of Bosons: Photons to Gravitational Waves"*', organized by the Department of Physics, School of Basic and Applied Sciences, Adamas University Kolkata, on 5th January, 2022.
- Participated in '*ARIES Training Training School in Observational Astronomy (ATSOA) – 2021*' organised by 'Aryabhatta Research Institute of Observational Sciences', Nainital, Uttarakhand from 17th to 24th May, 2021 in virtual mode.
- Presented poster in '*International Conference on Condensed Matter Physics (IEMPHYS-19)*' organised by Institute of Engineering and Management (IEM) Kolkata in 2019.
- Participated the workshop on robotics and artificial intelligence titled 'Robotelligence', held at Amity University Kolkata in 2019.
- Participated the workshop on "*Physics Learning Methodology Theoretical and Experimental*" held at Dinabandhu Andrews College in 2017
- District champion in 'Science Model Making' in 'South 24 Parganas District Student Youth Science Fair' in 2016 and 2013.
- Participant in 'Science Model Making' of 'West Bengal State Students Youth Science Fair' in 2016, 2015 & 2013.
- District runner-up in 'Science Model Making' in 'South 24 Parganas District Student Youth Science Fair' in 2015.

Awards and Achievements in Co-curricular:

- 5th year diploma (Sangeet Bivakar) with distinction in keyboard playing from ‘Bangiya Sangeet Parishad’ (affiliated to Rabindra Bharati University) in 2018.
 - District Champion in intercollege ‘Youth Parliament’ quiz competition, organised by Government of West Bengal in 2017.
 - 5th year diploma in Painting from ‘Bangiya Sangeet Parishad’ (affiliated to Rabindra Bharati University) in 2013.
 - Semi-final runner-up in interschool quiz competition ‘Jog Biyog’ in 2010 on Doordarshan Kolkata.
 - District Champion in Recitation Competition, organised by ‘Kishore Bahini’ in 2006.
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Computer Proficiency:

- Languages: C, C++, FORTRAN
 - OS: Windows 7, 8, 10, 11, Linux (Ubuntu)
 - Software: Microsoft office, Gnuplot, Matlab, Libre office, Photoshop
 - Online platforms: Zoom, Skype, Google meet, Twidla (online white board)
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Languages Known:

- Bengali
 - English
 - Hindi
 - German (Beginner)
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September, 2022