

## Curriculum Vitae

Name: - Kumarjit Saha

Father's Name: - Manik Chandra Saha

Mother's Name: - Nilima Saha

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### Permanent & Communication Address:

Village: - North charilam

P.O:- North Charilam

District: - Sepahijala Tripura

State: - Tripura

PIN:-799103

## Educational Qualifications:

Name of examination	Board/University	School/College	Year of Passing	Percentage of marks	Remarks
Madhyamik	T.B.S.E	Charilam Class XII School	2006	60	I
H.S(+2 stage)	T.B.S.E	Bishalgarh Class XII School	2008	49.8	II
B.Sc	Tripura University	Ramthakur College	2011	47.62	II
M.Sc	Tripura University	Tripura University	2013	65.5	I
Ph.D.	Tripura University		2020		

## Research Interests:

Tropospheric wind circulation, Lightning climatology and Ionospheric disturbances

## Work Experience:

Working in collaboration with Tripura University, India and Tel Aviv University, Israel for study the impacts of upper tropospheric water vapor on tropical thunderstorm and also working in collaboration with IIG for Antarctic data analyses and instrument installation at Bharti. Study the lower ionosphere perturbation during different solar event like solar flare, geomagnetic storm and man-made event like satellite launch vehicle exhaust products effect using VLF electromagnetic wave. I also study the Indian summer monsoon rainfall impacts over Northeast India and lightning climatology over Himalayan sector. Dealing with the various software packages like Ubuntu, MATLAB, Origin etc Ability to analyze the scientific data formats, like Netcdf, hdf, txt, dat, xls, csv, ctl, ncl, grib etc. Knowledge of handling various scientific instruments like, Aethalometer, MWR, Sunphotometer, AWS, EFM, Softpal VLF receiver, WWLLN, ENTLN, IITM lightning data, IRNSS, GPS, Radiometer etc. Complete understanding of data analyses and interpretation techniques, like Polynomial Regression, Correlation Coefficient, Standard Deviation, Statistical Significance, Contour Plot, Geoshow plotting, Time Series Analyses, Diurnal Variation etc.

Knowledge of dealing with several scientific data sources including ground and satellite and reanalyses based, like TRMM, LIS, NOAA, MERRA, GOES, MODIS, IMD, Doppler Weather Radar, Wyoming data for CAPE, Giovanni Portal, Reanalyses product, GFS data, Asia Pacific scientific data centre, NCEP/NCAR database, GPM, Cloudsat etc.

### Additional Knowledge:

1. Numerical weather prediction model WRF to provide forecasting of lightning and lightning data assimilation.
2. Satellite data analyses like GPM, Cloudsat, LIS etc.
3. Dealing with various data format like, Netcdf, hdf, grib, ctl etc.
4. Experience of coding in MATLAB, FORTRAN, etc.
5. Experience to deal with various scientific instruments like Microtop Sun Photometer, Aethalometer, CNR4 Radiometer, Softpal VLF receiver, WWLLN, ENTLN, LDN, Boltek EFM etc.
6. Experience in various statistical analyses like, PCA, Regression, Correlation, Collocation etc.

### Projects involve:

- a) Working as a Senior Research Fellow (SRF) under the project entitled “What role do tropical thunderstorm play in driving the upper tropospheric water vapor feedback?” under ‘**ISF-UGC Project**’ which is a joint collaboration of Tripura University, India funded by University Grants Commission and Tel Aviv University, Israel funded by Israel Science Foundation.
- b) Working as a Junior Research Fellow (JRF) under the project entitled “Installation of indigenously developed Lightning Detection Network in North – East India and development of Lightning Detection Location Algorithm” under the ‘**LDN Project**’ funded by SAMEER, Mumbai, MoE & IT, Government of India

## List of Published Papers:

- a) **Kumarjit Saha**, Anirban Guha and Trisanu Banik: Indian summer monsoon variability over North-East India: Impact of ENSO and IOD; Journal of Atmospheric and Solar-Terrestrial Physics, doi.org/10.1016/j.jastp.2021.105705, 2021, (IF: 1.7)
- b) Narayan Prasad Damase, Trisanu Banik, Bapan Paul, **Kumarjit Saha**, Shriram Sharma, Barin Kumar De and Anirban Guha: Comparative study of lightning climatology and the role of meteorological parameters over the Himalayan region, Journal of Atmospheric and Solar-Terrestrial Physics, doi: 10.1016/j.jastp.2020.105527, 2021, (IF: 1.7)
- c) Bapan Paul, Barin Kumar De, **Kumarjit Saha** and Anirban Guha: A comparative study between two percentage of occurrence methodologies for computing ionospheric scintillation statistics, Advances in Space Research, vol: 66, pages: 571-590, doi.org/10.1016/j.asr.2020.04.024, 2020, (IF: 2.1)
- d) **Kumarjit Saha**, Barin Kumar De, Bapan Paul and Anirban Guha: Satellite launch vehicle effect on the Earth's lower ionosphere: A case study; Advances in Space Research, vol: 65, pages: 2507-2514, doi.org/10.1016/j.asr.2020.02.026, 2020, (IF: 2.1)
- e) **Kumarjit Saha**, Narayan Prasad Damase, Trisanu Banik, Bapan Paul, Shriram Sharma, Barin Kumar De and Anirban Guha: Satellite-based observation of lightning climatology over Nepal; Journal of Earth System Science, vol: 128, doi.org/10.1007/s12040-019-1239-x, 2019, (IF: 1.4)
- f) Anirban Guha, **Kumarjit Saha**, Barin Kumar De, Kandula Venkata Subrahmanyam and P. R. Shreedevi: Space weather effects on lower ionosphere: First investigation from Bharati station during 34th Indian scientific expedition to Antarctica, Advances in Space Research, vol: 59, pages: 2007-2018, doi.org/10.1016/j.asr.2017.02.004, 2017, (IF: 2.1)

## List of Communicated Papers:

- a) B Paul, **K Saha**, B K De and A Guha, Features and Statistics of Nighttime Ionospheric Scintillation of Equatorial Ionization Anomaly: A study of a northern crest region of the Indian Subcontinent. Journal of Earth System Science, Springer.

## Workshop & Conference attended:

- a) Participated in “**Basic training course on satellite meteorology and its applications in Numerical Weather Prediction (NWP)**”, jointly conducted by the Northeastern space application centre & Indian Meteorological Society-Shillong chapter, 5<sup>th</sup> -9<sup>th</sup> October, 2020.
- b) Participated in short term training program on “**Applications of MATLAB in Mathematics, Science & Engineering**”, September 15-17, 2020, ST. Vincent Pallotti, college of engineering & technology, Nagpur, India.
- c) Attended and presented papers (Oral) at the *Ursi-Regional Conference on Radio Science (URSI RCRS 2020)*, February 12-14, 2020, Indian Institute of Technology BHU, Varanasi, Uttar Pradesh, India.
- d) Attended and presented papers (poster) at the *URSI-Asia Pacific Radio Science Conference (URSI AP-RASC)*, March 09-15, 2019, India Habitat Centre, New Delhi.
- e) Attended and presented papers (poster) at the *20<sup>th</sup> National Space Science Symposium – NSSS, 29-31 January, 2019*, Savitribai Phule Pune University, Pune, Maharastra.
- f) Visited **Tel-Aviv University**, Israel, 2018 for attending the scientific discussion under ‘**ISF-UGC Project**’ which is a joint collaboration of Tripura University, India funded by University Grants Commission and Tel Aviv University, Israel funded by Israel Science Foundation

- g)** Attended and presented papers (Oral) at the XI Biennial National Conference of Physics Academy of North East (**PANE**), 21<sup>st</sup> – 23<sup>rd</sup> November, 2018, Assam University, Diphu campus. Diphu, Assam.
- h)** Participated in *Science Academies' Refresher Course in Statistical Physics and its Application during the period of 2 to 15 May, 2017*, Department of Physics, Tripura University
- i)** Attended and presented papers (poster) at the Xth Biennial National Conference of Physics Academy of North East on the theme “Recent Advances in Physics Research and its Relevance”, 10<sup>th</sup> – 12<sup>th</sup> November, 2016, Department of Physics, St. Anthony's College, Shillong
- j)** Participated in *Science Academies' Refresher Course in Experimental Physics during the period of 8 to 23 march, 2016*, Department of Physics, Tripura University
- k)** Attended and presented papers (poster) at the *XIXth National Space Science Symposium – NSSS, 9-12 February, 2016*, Space Physics Laboratory, Vikram Sarabhai Space Center, Indian Space Research Organization.
- l)** Attended and presented papers (oral) at the *2nd Ursi-Regional Conference on Radio Science*, November 16-19, 2015, Jawaharlal Nehru University, New Delhi.