

February 08, 2019



Name: Binod Adhikari

Date of Birth: 20 July 1979

Current Position: Lecturer and Research Coordinator

Department of Physics

St. Xavier's College, Matighar

Kathmandu, Nepal

Mobile: +977-9843492311

Email: binod.adhi@gmail.com,

binod.adhikari@xsc.edu.np

Educational Background

1. Doctor of Philosophy (Ph.D.), 2015 – Physics, National Institute for Space Research, Sao Paulo, Brazil.
2. Master's degree in Science (M.Sc.), 2005, Major- Physics, Central Department of Physics, Tribhuvan University, Kathmandu, Nepal.
3. Bachelor's degree in Science (B.Sc.), 2002, Major- Physics, Mathematics and Chemistry, Tri-Chandra Multiple Campus, Tribhuvan University, Kathmandu, Nepal.

Professional Experience

1. Physics Lecturer, June 2015 to till now, St. Xavier's College, Maitighar, Kathmandu (Affiliated to T.U, Nepal).
2. Solid Earth Geo-Physics Lecturer (Part time), from Sept. 2016 to till now, Patan Multiple Campus, Lalitpur, Nepal.
3. Physics lecture, 2008 to 2011, Little Angels' College, Hatiban, Lalitpur, Nepal

Research field

Ionosphere, Magnetosphere, Solid Earth Geophysics, Solar Physics

Relevant Extracurricular Activities

- **Member** of Nepal Physical Society (NPS).

Publications:

1. Polar cap potential and merging electric field during high intensity long duration continuous auroral activity, Journal of Nepal Physical Society, 2016.
2. HILDCAA-Related Effects Recorded in Middle Low Latitude Magnetometers, Phd Thesis, 2015.
3. Analysis of supersubstorm events with reference to polar cap potential and polar cap index, [Earth and Space Science](#), 2017.
4. Ionospheric effect of non-storm HILDCAA (High intensity Long duration continuous Auroral Activity), Journal of Institute of Science and Technology, 2017.
5. A Simple Model of Cosmic Inflation, International Journal of Recent Research and Review, 2017.
6. A Review on Cosmic Inflation, International Journal of Current Research- and Academic Review, 2017.
7. Study of field aligned current (FAC), interplanetary electric field Component (E_y), interplanetary magnetic field component (B_z), and northward (x) and eastward (y) components of geomagnetic field during supersubstorm, [Earth and Space Science](#), 2017.
8. Daily, Seasonal and Monthly Variation of Middle-low latitudes Magnetic Field during Low Solar Activity, Discovery Publication, 2017.
9. An experimental analysis on cooking performance of parabolic solar cooker in Kathmandu valley, Discovery Publication, 2017.
10. Analysis of Geomagnetic Storms Using Wavelet Transforms, Nepal Physical Society, 2017.
11. Total Electron Content and Electron Density Profile Observations during Geomagnetic Storms using COSMIC Satellite Data, Discovery Publication, 2016.
12. Impacts on Cosmic-Ray Intensity Observed during Geomagnetic Disturbances [Solar physics](#), DOI: [10.1007/s11207-017-1183-3](https://doi.org/10.1007/s11207-017-1183-3).
13. Spectral Characteristic of Geomagnetic-ally Induced Current during Geomagnetic Storms by Wavelet Techniques, [Journal of Atmospheric and Solar-Terrestrial Physics](#), 2018.

14. Periodicities Observed on Polar Cap Potential and Polar Cap Index during High Intensities Long duration Continuous Aurora Activities (HILDCAAs), [Russian Journal of Earth Science](#), 2018.
15. Cross-correlation Analysis of Field Aligned Current with Polar Cap Potential, solar Wind Parameters and Geomagnetic Indices during Geomagnetic Disturbances, [Earth and Space Science](#). 2018
16. Analysis of Solar, Interplanetary, and Geomagnetic Parameters during Solar Cycle 22, 23 and 24. [Russian Journal of Earth Science](#). 2019.
17. Variation of Solar Wind Parameters along with the understanding of Energy Dynamics within the Magnetospheric System during Geomagnetic Disturbances, [Earth and Space Science](#),2019.
18. HILDCAA Related GIC and Possible Corrosion Hazard in Underground Pipelines: A Comparison Based on Wavelet Transform, [Space weather](#), 2019.

Under Review

1. Geomagnetic Signature Recorded on Mid-Latitudes Stations during High Intensity Long Duration Continuous Auroral Activity, [JGR-Space Physics](#).
2. Impacts on Proton Fluxes Observed during Different Interplanetary Conditions (ICMEs and CIRs)" [Solar Physics](#).
3. Analysis of Cosmic Ray, Solar Wind Energies, Components of Earth's Magnetic Field, and Ionospheric Total Electron Content during Solar Superstorm of 18-22 November 2003". [SN Applied Sciences \(SNAS\)](#)

Conferences Attend

1. 14th International Workshop on Technical and Scientific Aspects of MST Radar. 2014. (Simpósio).
2. Parker Workshop on Magnetic Reconnection. 2014. (Simpósio).
3. V Simpósio Brasileiro de Geofísica Espacial e Aeronomia. Investigation of related-HILDCAA effects on middle-low latitude geomagnetic records: an exploratory study,. 2014. (Simpósio).
4. National workshop on New Research Trends in Physics 3rd September, 2016, St. Xavier's College, Maitighar, Kathmandu, Nepal
5. Three Days Workshop on Space Science Technology and Space policy, 1, 2 & 3 June, 2017, Kathmandu, Nepal.
6. The Study of Energy Released and Ground Motion During Earthquake (2015) Using Wavelet Analysis. The 11th Asian Regional Conference of IAEG [ARC-11] November 28-30, 2017, Kathmandu, Nepal.

7. Periodicities observed on solar flux index ($F_{10.7}$) during geomagnetic disturbances, AGU FALL MEETING 2017.
8. Analysis of Sunspots Number during Solar Cycle 21 and 22 , IAUS340, India, 2018
9. 15th International Symposium on Equatorial Aeronomy October 22 – 26, 2018
10. Ministerial Conference on Nuclear Science and Technology: Addressing Current and Emerging Development Challenges, 28–30 November 2018, Vienna, Austria

Student's Thesis/project work: (Bachelors/Master/PhD)

1. More than 10 Students are enrolled for master dissertation.
2. 9 students are enrolled for master project work.
3. 6 students are enrolled for Bachelors project work.
4. One student is enrolled on PhD program (Co-Supervisor).

Member of editorial Board:

1. Journal of Nepal Physics Society, JNPS, (2018)
2. Journal of Patan Multiple college, JMPC (2018)

Reviewers

1. Journal of Institute of Science and Technology - Nepal Journals Online
2. Journal of Scientific Research - Bangladesh Journals Online

Research Team

1. Prof. Dr. Narayan Chapagain, Central Department of Physics, Tribhuvan University. E-mail: npchapagain@gmail.com.
2. Dr. Carlos Roberto Braga, INPE - Instituto Nacional de Pesquisas Espaciais, Sao Paulo, Brazil. Email : carlos.ufsm@gmail.com.
3. Dr. Sudipta Sasmal, University of Calcutta. India, Email: meet2ss25@gmail.com.
4. Dr. Virginia Klausner, Univap - Universidade do Vale do Paraíba, Brazil, Email: viklausner@gmail.com.
5. Arian Ojeda González Univap - Universidade do Vale do Paraíba, Brazil, Email ojeda.gonzalez.a@gmail.com.
6. Farah Adilah Mohd. Kasran, Postgraduate Student, Faculty of Electrical Engineering, Universiti Teknologi MARA (UiTM), 40450 Shah Alam, Malaysia.

7. Marielle Eduardo, Department of Physical Sciences, University of the Philippines Baguio Department, mreduardo@up.edu.ph.
8. Mr. Kiran Pudasainee, St. Xavier's College, Maitighar, Kathmandu, Nepal. E-mail: kpudasainee99@stxc.edu.np and kpudasainee99@gmail.com.

Referees

Prof. Binil Aryal

Central Department of Physics,

Tribhuvan University

Tel: +977-9803228105

E-mail: aryalbinil@gmail.com

Asst. Prof. Narayan Chapagain

Department of Physics

Patan Multiple Campus

E-mail: npchapagain@gmail.com

Prof. Odim Mendes Jr.

National Institute for Space Research,

Sao Paulo, Brazil.

E-mail: odim.mendes@inpe.br