

KRISHNA KHANAL

Education

PhD, Space Science <i>University of Alabama in Huntsville (UAH)</i>	2025 <i>Huntsville, Alabama, USA</i>
MS, Space Science <i>University of Alabama in Huntsville (UAH)</i>	2021 <i>Huntsville, Alabama, USA</i>
MSc, Physics <i>St. Xavier's College, Tribhuvan University (TU)</i>	2018 <i>Maitighar, Kathmandu, Nepal</i>
BSc, Physics <i>Birendra Multiple College, Tribhuvan University (TU)</i>	2014 <i>Bharatpur, Chitwan, Nepal</i>

Work Experience

Research Scientist I, Step 3 <i>University of Alabama in Huntsville (UAH)</i>	October 2025- Present <i>Huntsville, Alabama, USA</i>
Postdoctoral Research Assistant III, S1 <i>University of Alabama in Huntsville (UAH)</i>	May 2025- October 2025 <i>Huntsville, Alabama, USA</i>
Graduate Research Assistant <i>University of Alabama in Huntsville (UAH)</i>	August 2020- May 2025 <i>Huntsville, Alabama, USA</i>
Student Specialist V <i>University of Alabama in Huntsville (UAH)</i>	May 2020- Aug 2020 <i>Huntsville, Alabama, USA</i>
Graduate Teaching Assistant <i>University of Alabama in Huntsville (UAH)</i>	August 2019- May 2020 <i>Huntsville, Alabama, USA</i>

Research Interests

- Dayside Magnetosphere Interaction
- Solar Coronal Heating
- Solar Wind Turbulence

Publications

- Krishna Khanal, Ying Zou, Gary Zank (2025). Suppression of Magnetopause Reconnection in the Presence of Cold Magnetospheric Plasma. *Earth and Space Science*.
- Krishna Khanal, Ying Zou, Xueling Shi, Gary Zank, J. Michael Ruohoniemi, Kathryn McWilliams (2025). Controlling Factors of the Local Time Extent of Magnetopause Reconnection: A Statistical Study. *Journal of Geophysical Research: Space Physics*.
- Khanal, K., Adhikari, B., Chapagain, N. P., Bhattarai, B. (2019). HILDCAA-related GIC and possible corrosion Hazard in underground pipelines: A comparison based on wavelet transform. *Space Weather*, 17(2), 238-251.
- Adhikari, B., Dahal, S., Sapkota, N., Baruwal, P., Bhattarai, B., Khanal, K., Chapagain, N. P. (2018). Field-Aligned Current and Polar Cap Potential and Geomagnetic Disturbances: A Review of Cross-Correlation Analysis. *Earth and Space Science*, 5(9), 440-455.
- Adhikari, B., Sapkota, N., Dahal, S., Bhattarai, B., Khanal, K., Chapagain, N. P. (2019). Spectral characteristic of geomagnetically induced current during geomagnetic storms by wavelet techniques. *Journal of Atmospheric and Solar-Terrestrial Physics*, 192, 104777.
- Shi, X., Schmidt, M., Martin, C. J., Billett, D. D., Bland, E., Tholley, F. H., ... McWilliams, K. (2022). pyDARN: A Python software for visualizing SuperDARN radar data. *Frontiers in Astronomy and Space Sciences*, 9, 381.

Volunteering

Member, <i>Magnetic Reconnection</i> Focus Group for GEM Workshop	2025- Present
Member, GEM Student Advisory Committee	2022-2025
Member, SuperDARN Data Visualization Working Group	2021-Present