Krishna Khanal

Education

PhD, Space Science **2025**
University of Alabama in Huntsville (UAH) *Huntsville, Alabama, USA*

MS, Space Science **2021**
University of Alabama in Huntsville (UAH) *Huntsville, Alabama, USA*

MSc, Physics **2018**
St. Xavier's College, Tribhuvan University (TU) *Maitighar, Kathmandu, Nepal*

BSc, Physics **2014**
Birendra Multiple College, Tribhuvan University (TU) *Bharatpur, Chitwan, Nepal*

Work Experience

Postdoctoral Research Assistant III, S1 **May 2025- Present**
University of Alabama in Huntsville (UAH) *Huntsville, Alabama, USA*

Graduate Research Assistant **August 2020- May 2025**
University of Alabama in Huntsville (UAH) *Huntsville, Alabama, USA*

Student Specialist V **May 2020- Aug 2020**
University of Alabama in Huntsville (UAH) *Huntsville, Alabama, USA*

Graduate Teaching Assistant **August 2019- May 2020**
University of Alabama in Huntsville (UAH) *Huntsville, Alabama, USA*

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, *Magnetic Reconnection* Focus Group for GEM Workshop **2025- Present**

Member, GEM Student Advisory Committee **2022-2025**

Member, SuperDARN Data Visualization Working Group **2021-Present**