Magnetotelluric Instrumentation and Data Processing Short Course 2024

Date: October 27th - November 1st, 2024
Location: Albuquerque, New Mexico
Experience shared by: **Dr. Anuradha Mahanama**

I recently had the privilege of attending the **2024 Magnetotelluric Instrumentation and Data Processing Short Course**, a highly competitive program organized by EarthScope. With only 15 participants selected from a large pool of applicants, this 5-day course brought together Ph.D. students, postdocs, faculty, and professionals in seismology and geophysics. The fully funded opportunity covered travel, food, and accommodation, enabling attendees from U.S. institutions to focus entirely on learning and networking.

The workshop was an incredible experience, offering a unique blend of field demonstrations, lectures, guided exercises, and discussions. I had the opportunity to connect with experts in magnetotellurics (MT) and gain hands-on experience with MT instruments managed by the EarthScope Primary Instrument Center (EPIC). From designing surveys to interpreting data, the course covered the entire workflow of MT research, offering a comprehensive understanding of this critical geophysical technique.

Learning Highlights:

- Fundamentals of magnetotelluric (MT) theory and field techniques.
- Hands-on training in MT survey design, station deployment, and data collection.
- Open-source MT software applications: Aurora, MTpy, and SimPEG.
- Interpreting and inverting MT data to create sub-surface conductivity models.

Instructors:
Paul Bedrosian (USGS), Seogi Kang (Stanford University), Karl Kappler (Kappler & Associates), Michael Mitchell (USGS postdoc), Jared Peacock (USGS).

As an early-career researcher, this experience significantly enriched my knowledge and skills in geophysics. I highly encourage other students and researchers at CERI to consider applying for future workshops like this. Opportunities like these are invaluable for networking and professional growth! For inquiries about the workshop, feel free to reach out to me (mahanama@memphis.edu) or check with EarthScope (https://www.earthscope.org).

Captures from the EPIC Instrument Center and the Field Work