

UNL Geophysics Team
newsletter
academic year of 2020-2021

GEOPHYSICS
ROCKS!

Dear Friends and Colleagues of the UNL Geophysics team!

Please join me in congratulating four of our team members on graduation in August 2021:

Asif Ashraf completed his Master's program and successfully defended his Thesis “**Geological structures and crustal architecture of the Cascadia subduction zone from the integration of multiple geophysical datasets**” which can be downloaded [here](#). Asif starts his Ph.D. journey at the University of Oregon this Fall where he received a full scholarship. **Congratulations, Asif! Great job!** Asif has submitted the abstract to the upcoming GSA and is currently working on the one for AGU (working, right?!). The first manuscript (out of three planned) is ongoing with an ambitious plan to be submitted before the end of the Summer. **Best of luck, Asif! We are extremely proud of you!!!**

Alexa Fernandez is graduating with her BS in Geology and BA in Chemistry (!). **Alexa** is a UCARE scholarship recipient; her thesis “**Integrated geophysical analysis over Bathymetrists seamounts and Sierra Leone Rise**” can be downloaded from [here](#). Alexa stays in our group to continue her project focused on the Bathymetrists Seamounts as a Master's student. Alexa will use the seismic, gravity and magnetic data provided by our collaborators from the University of Hamburg. **We are very excited to have Alexa with us!** Looking forward to seeing how Alexa solves the tectonic puzzle of these seamounts! **Best of luck, Alexa!**

Khawla Al Farsi graduates with a BS in Geology. Khawla’s senior thesis “**Developing a Database of Seismic Data Over the Cascadia Subduction Zone**” is also available online [here](#). Khawla’s project was particularly challenging because she had to deal with very old data of poor quality that were challenging to deal with. Khawla’s database provides a very important foundation for future Cascadia studies. **Great job, Khawla!** After graduation, Khawla plans to go back to her native Oman and look for a job. **Please join me in whisking Khawla all the best in her journey!**

Sulaiman Al Badi graduates with a BS in Geology. Sulaiman’s project was focused on studying the subsurface fault system in Nebraska using our drone-based magnetic system. His senior thesis “**Drone-Based Magnetic Surveying in Eastern Nebraska**” can be downloaded [here](#). Sulaiman applied for over 150 (!!!) job opportunities and found a job as a well-site geologist for Columbine Corporation located in Texas!!! The company will process the OPT working visa for Sulaiman for three years with an option to extend it for one more year. After some training in Midland, TX, Sulaiman will have the option to choose the job location. **We are very, very excited for you, Sulaiman! Great job!**

Our team has a new member - **Ariful Islam** joins us starting in Fall 2021 (see <https://eas.unl.edu/filina-people>). Ariful will continue Asif's project on the Cascadia subduction zone, as well as will help me with the Norwegian project (see below). **Welcome to our team, Ariful! We are looking forward to working with you!**

I ask you please spread the word as we have some funding to support an undergraduate research assistant for Fall 2021- Spring 2022. More details are on <https://eas.unl.edu/filina-opportunities>

I also would like to update you on the status of **Kris Guthrie**. Kris continues working on the project focused on the intriguing seismicity in central Nebraska. Kris and I have relocated the earthquake focuses to localize the cluster better. Kris plans to collect new gravity data over the region of clustered seismicity in August- September and graduate in December 2021. As of now, Kris continues gravity measurements to establish the gravity base station on the UNL campus - Kris is preparing the AGU abstract about that.

Our former student - **Lucas Hartford** - finally has his project published as a paper in the Journal of Marine and Petroleum Geology. The paper is titled "**Subsurface structures along the Western Yucatan from integrated geophysical analysis**", the paper is available [here](#). I also have a book chapter "**Geological and Geophysical Constraints Guiding New Tectonic Reconstruction of the Gulf of Mexico**" accepted to be included in volume 1 "Extensional Tectonics: Continental Breakup to Formation of Oceanic Basins" of the 3-volume book "*Tectonic Processes: a Global View*" published by AGU. We have one more invited review paper currently in review that intends to conclude our group's research effort on the tectonics of the Gulf of Mexico (see <https://eas.unl.edu/filina-publications>).

The focus of research now shifts to the Norwegian margin as I am participating in the **ongoing IODP expedition**. I am writing this email from **Reykjavik, Iceland** where I am in quarantine prior to boarding the ship early next week. You can follow the expedition's update [here](#). This is extremely exciting, and I will share the findings with you once I am back in October.

The Gravity and Magnetic Committee of the Society of Exploration Geophysicists (where I am a chair) runs a FREE virtual event for students – **GEM* Career Panel** (*Gravity, Electromagnetics, Magnetics) on **Wednesday, 18 August, 1-3 pm CDT**. See details and speakers bios [here](#). The event intends to provide students an opportunity to speak informally with established professionals from various sectors - Industry, Academia, and small private companies – to inquire about potential career challenges, ask for words of wisdom, and potentially find new mentors. **Please spread the word about this event by posting on your social media** (https://twitter.com/SEG_org/status/1420137777824473093) and come to the event https://seg.zoom.us/meeting/register/tJmIcEqvrjsrGdChFkIXs_CzpOEajK0pDL1W (UNL Geophysics students are strongly encouraged to attend).