

THE Core SAMPLE

Internal Newsletter of the School of Energy Resources

April | 2021

ARYANA NAMED UW'S OCCIDENTAL CHAIR IN ENERGY AND ENVIRONMENTAL TECHNOLOGIES



Saman Aryana is the first Occidental Chair in Energy and Environmental Technologies in the University of Wyoming's School of Energy Resources (SER).

A UW chemical engineering associate professor, Aryana's research has primarily focused on the fundamental physics of flow instabilities and the dynamics of subsurface displacement processes.

Inspired by Occidental's pursuit of enhanced oil recovery technologies and leading-edge carbon capture, use and storage (CCUS) projects, the chair was created to champion a distinguished UW faculty member whose research expertise lies in improving enhanced oil recovery techniques, as well as long-term carbon dioxide storage solutions. Occidental is one of the largest oil producers in the U.S., including a leading producer in the Permian and DJ basins, and offshore Gulf of Mexico.

[Continue Reading >>>](#)

SER WELCOMES NEW ACADEMIC ADVISING MANAGER

The School of Energy Resources is pleased to announce **Dr. Kami Danaei** as the new Academic Advising Manager.

In her new position, Dr. Danaei will play a major role in the recruitment of new students to the Energy Resource Management & Development (ERMD) degree, as well as the new Energy Minor launching in Fall 2021.

She will help grow and further establish the academic program among the community colleges in the state as well as embed pathways for K-12 students to matriculate. Additionally, she will oversee, advise, and provide career guidance and counseling to students in both concentrations of the program.



[Continue Reading >>>](#)

HIGHLIGHTS

Academic Program

- A minor has been approved and the academics team is working on a development strategy to launch it.
- SER has hired **Kami Danaei** as the new Academic Advising Manager.***



- **Pam Henderson** is retiring at the end of this month. Please wish Pam congratulations!

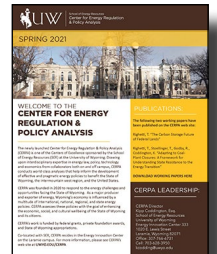
Research Centers of

- *The Center for Energy Regulation and Policy Analysis (CERPA)* hosted an internal webinar with CERPA research affiliate **Niall Mac Dowell** of Imperial London College to discuss carbon capture and storage efforts in the UK. The webinar was recorded and will be made available for internal use only.
- *CERPA* was unsuccessful in advancing to the next stages of the USAF Reimagining Energy initiative.

- *CERPA* released a recent edition of their newsletter.

[Download Newsletter >>>](#)

- *CERPA* Director **Kipp Coddington** and *CEGR* Director **Scott Quillinan** will be featured panelists at the 21st Century Energy Transition Symposium. For more information on the Symposium or to register for the event, visit their [website](#).



*** more details in features

To submit news and updates email: Christine.reed@uwyo.edu



School of Energy Resources

SCHOOL OF ENERGY RESOURCES ADDS CENTER OF EXCELLENCE FOR WIND ENERGY RESEARCH

A foundational pillar of the School of Energy Resources (SER) at the University of Wyoming (UW) is its dedication to innovative research to find solutions to energy development challenges in Wyoming. In order to accomplish this mission, SER supports research through its Centers of Excellence (COE), which facilitate the investigation of energy issues in an assortment of disciplines.

Most recently, SER has directed support to the Wind Energy Research Center (WERC).

Operating in the CEAS, WERC was created in 2008 to address the potential for wind energy growth in Wyoming. SER is pleased by the opportunity to reinvigorate and invest in the program, allocate resources to bolster its mission, as well as incorporate the much-needed policy element to compliment technology development.

[Continue Reading >>>](#)



SER RESEARCHER CHARLES NYE CONDUCTS COLLABORATIVE SOIL GAS SAMPLING TO ADVANCE WYOMING CARBONSAFE PROJECT

Charles Nye, a Research Scientist at the School of Energy Resources' (SER) Center of Economic Geology Research (CEGR) spent time in the field during March to install soil gas monitoring systems in an effort to advance the \$33.1 million Wyoming CarbonSAFE project. The project, which is in its third phase of development, seeks to determine the feasibility of subsurface carbon storage in the Powder River Basin.

Soil gas analysis is one of the many pieces that make up the large-scale undertaking to fully characterize and monitor the area. As part of the environmental field operations, soil sample composition is intended to establish a baseline of the test site prior to any CO₂ injection.

Nye along with UW graduate **Ben Flickinger** of Earth Platform Systems (EPS) installed eight soil gas monitoring systems at the CarbonSAFE test site.

[Continue Reading >>>](#)



HIGHLIGHTS CONT.

Research Centers of Excellence Cont.

- *The Center for Carbon Capture and Conversion (CCCC)* has received a healthy response to two job advertisements for a senior research scientist and research science associate. Candidates are being shortlisted for interview and it is hoped both positions can be filled before June 2021.
- CCCC has completed the design for a small demonstration building to be constructed on campus. The building will be made from coal-derived carbon materials, with construction expected to start this summer.



- *Center for Economic Geology Research (CEGR)* research scientists **Erin Phillips**, **Davin Bagdonas**, **Charles Nye**, and other CEGR scientists contributed to a pre-proposal submitted to DOE Basic Energy Sciences entitled "Migration and Enrichment of Rare Earth and Platinum Group Elements in Coal-Fire Clinker."
- *CEGR* scientist **Selena Gerace** is working with other CEGR and CERPA researchers on Wyoming's contribution to the PCOR Atlas.
- *CEGR* is finalizing its report on Phase II of the Wyoming CarbonSAFE project to submit to the Department of Energy (DOE).
- **Emma-Jane Alexander** of the *The 3D Visualization Center (3D Viz)* continues to support the UW strategic planning process by contributing to the Digital Pillar initiative, and proposing comment on how UW can be more 'Digital' and positively impact students, faculty and the state.



SER'S QUILLINAN DISCUSSES RARE EARTH ELEMENTS ON WYOMINGPBS' WYOMING CHRONICLE SEGMENT

The School of Energy Resources (SER) Director of Research and Communications, **Scott Quillinan** is featured on WyomingPBS' Wyoming Chronicle Segment that aired on April 9th. Quillinan, who also serves as the Director of the Center for Economic Geology Research (CEGR) discusses rare earth elements (REE) in Wyoming with WyomingPBS Senior Public Affairs Producer, Craig Blumenshine.



The rare earth element research program at the University of Wyoming was created to stimulate research and development in the area of rare earth element production and processing, and the potential economic benefits to Wyoming. Quillinan discusses REE potential for Wyoming and conceivable hurdles in a changing economic market.



[Watch the Interview >>>](#)

ALL STAFF MEETING RECAP

In case you missed it, here is what was discussed at the all staff meeting in March:

- **UW Budget Cuts** - Dr. Krutka gave an update on the budget cuts and how they will affect SER. She reported that in August of last year, SER took a 10% budget cut to the state funding which amounted to approximately \$1 million which is now permanent. SER has been trying to offset those cuts with grants.

Update: Since the staff meeting, the Legislature voted to codify into law that the SER budget is separate from the main UW budget and must be approved by the Energy Resources Council.

- **Covid-19** - Vaccines are now available for everyone in the UW community and all employees and students are encouraged to get vaccinated. In order to track vaccinations in the move towards 70% immunity, employees are asked to enter the dates and supplier (ie: Moderna, J&J, etc.) of their vaccine into HCM. Please schedule your first shot.

WyoWeb -> Financial Management and HCM -> Career and Performance -> Skills and Qualifications

Update: If you are already on campus and doing weekly testing, DO NOT mark yes on the 'opt in' question. You are already accounted for!

HIGHLIGHTS CONT.

Research Centers of Excellence Cont.

- *The Enhanced Oil Recovery Institute (EORI)* along with UW researchers completed a study of methane emissions from abandoned wells. [Read Study >>>](#)

General Announcements

- **Dr. Holly Krutka** is a featured speaker in the upcoming Energy Innovates Event Series hosted by the U.S. Chamber of Commerce Global Energy Institute. Any one interested in hearing her speak about CCUS and carbon removal policy trends can sign up for the event. [Register Here >>>](#)



- Now that the weather is starting to turn, **Christine Reed** in Outreach is available to provide updated or new head shots for the website and for your personal use. Early mornings or evenings are best throughout the summer! (and yes! - she is happy to meet up out of office hours for the best light and locations off campus). Please schedule with Christine at christine.reed@uwyo.edu



- **Research Highlights: CERPA** - Continuing to keep everyone at SER up to date on efforts in other units, this meeting focused on the activities in the Center for Energy Regulation & Policy Analysis.

- **Kipp Coddington** gave an overview of the mission of the center and introduced his team. CERPA facilitates partnerships with public, private, and non-governmental entities outside of the UW community to support efforts related to policy development and assessment. CERPA's work is funded by federal grants, private foundations and the State of Wyoming.
- **Jada Garofalo** gave an update on Wyo. HB200. House Bill 200 is the first state-based effort to encourage retrofitting coal-fired power plants with carbon capture use and storage (CCUS) technology. It also encourages rate-recovery of investments in carbon capture. This project will assess how the new law may impact coal-fired power plants in the State. Garofalo is collaborating with UW Engineer **Haibo Zhai** and **Niall Mac Dowell** of Imperial London College on the project aiming to produce 4 integrated deliverables.

Update: Garofalo, along with Dr. Holly Krutka and Kipp Coddington have since presented to the Wyoming Public Service Commission to discuss it further.

- **Selena Gerace** gave an update on Class VI permitting. Gerace along, with researchers in both CEGR and CERPA have been working to develop guidance for Wyoming regarding the application of Class VI permits and the conversion of Class II permits. She presented on the topic to the Wyoming Energy Authority (WEA) along with **Kipp Coddington**, **Fred McLaughlin**, and **Scott Quillinan**.
- **Academic Program Highlights** - Interim Academic Director **Tim Considine** gave an update on the Academic Program. Some key takeaways included:
 - 9 students will be graduating in May
 - Recruiting is on track and they hope to replace those students with incoming freshmen
 - **Dr. Kami Danaei** was hired as the new academic advising manager with a start date of April 1 to begin on-boarding and cross-training with **Pam Henderson**
- **Recognition of Pam Henderson** - Members of SER staff put together a thank you video tribute to Pam Henderson featuring video clips of current students, alumni, staff and faculty to thank Pam for her wonderful years of service and to wish her all the best on her impending retirement!

Congratulations Pam!

ENERGY JOKE

Q: What do you call a competition between Energy Companies?



A: A Power Struggle!

IMPORTANT DATES

- **Energy Innovates Presentation | Dr. Krutka**
April 22, 2021
- **Final Report of CarbonSAFE Phase II Due**
April 30, 2021
- **21st Century Energy Transition Symposium**
May 4, 5 & 14, 2021
- **2021 Commencement Ceremony (SER)**
May 14, 2021 | 12:30 PM | A&S Auditorium
- **Begin Summer Hours (7:30am - 4:30pm)**
May 17, 2021
- **Next ERC Meeting**
June 18, 2021
- **Next All Staff Meeting**
June 22, 2021 | 9:00 am - 10:00 am

