

UNCONVENTIONAL

DEPARTMENT OF PETROLEUM ENGINEERING QUARTERLY NEWSLETTER

September 2021

Issue III

Welcome Back on Campus

With UND's announcement that the classes are back to being held face-to-face, we are welcoming PE students on campus in fall semester and request them to closely follow the University protocols related to the COVID 19 for everyone's wellbeing. All the lab courses will be run based on the exiting policies to make sure while students will receive the best learning outcome, their health will not be in danger.

New Faculty Hire

We are pleased to welcome Dr. Foued Badrouchi, new Assistant Professor, who joined the department in Summer 2021. Foued is expected to teach undergraduate and graduate courses for the department and advise Ph.D. students. Dr. Foued received his PhD degree in Petroleum Engineering from UND. His research is focusing on Drilling, production optimization and Enhanced Oil Recovery.



DRACOLA Update

All the major pieces of equipment have been placed. The top drive moves up and down now. The tower moves back and forth. The drillers cabinet is getting assembled and the LABVIEW programing is underway. The grid 600V power supply is installed and shake down on the SCR house will start soon. The 600V gen end to power the Tri-Plex mud pump is on its way back to ND from TX. Once it arrives the generator will be reassembled, and wiring will start for the mud pump. The new replacement motor for the top drive has been found and should be purchased shortly. The mud tanks are ready for shake down with water once the SCR house wiring is completed. A 55" monitor was located and will be installed in the observation room to allow observers of the drilling operation to see the drillers computer screen live. Now that the grid 600V power supply is installed the SCR house wiring will move forward and further shake down of each motor will start as they are permanently wired in. Many ideas for future PhD work continue to come in. Many of the students are excited to get started on their research and work with the DRACOLA. Many collaboration efforts are underway, both with other colleges and industry partners, expansion of the lab and its uses are being developed.

Short Course:

New Frontiers on Exploration Geophysics

Presenter: Dr. Amrouche Mohamed, geoscientist at Schlumberger Japan providing software-based solutions to challenges faced by the upstream oil and gas companies.

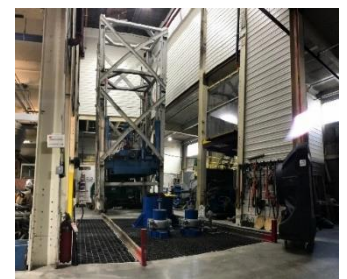
Sept 6 - Nov 8. For further information contact Mauricio Vasquez: m.vasquezpinto@und.edu

Faculty

- Dr. Vamegh Rasouli (Chair)
- Dr. Kegang Ling
- Dr. Hadi Jabbari
- Dr. Minou Rabiei
- Dr. Hui Pu
- Dr. Thomas Jo
- Dr. Foued Badrouchi
- Mrs. Bailey Bubach
- Mr. Harry Feilen, Director of DRACOLA

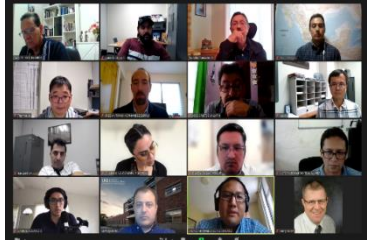
Adjunct Faculty

- Dr. Thomas Gentzis
Senior Geoscientist at Core Laboratories
- John Harju, VP for Strategic Partnerships, EERC
- Charles Gorecki, CEO, EERC
- John Hamling, Principal Engineer, EERC
- Larry Pekot, Principal Engineer and Reservoir Engineering Group Lead, EERC
- Mr. Vibhas Pandey, Senior Completion Engineer at ConocoPhillips
- Mr. Kalyan Venugopal, Schlumberger, Innovation FACTORI Manager
- Dr. Siamak Mishani
- Dr. Rahman Ashena
- Dr. Morteza Dejam

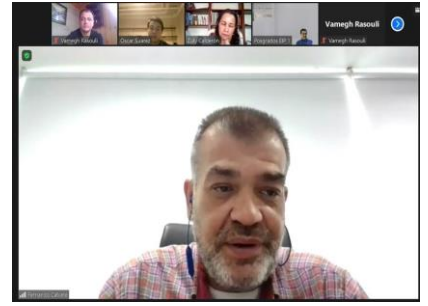


International Collaborations

The PE department continues its growth and seeks more national and international collaboration to establish faculty and student exchanges, study abroad programs, joint degree programs, and research and scholarly collaborations with Universities around the world. After few correspondences between the department Chair Dr. Vamegh Rasouli and the deans of the UIS (Industrial University of Santander, Colombia) and UNAM (National Autonomous University of Mexico), meetings were held remotely to discuss potential collaboration opportunities. A plan forward was defined and more meetings will follow to continue the collaborative opportunities in the field of Petroleum and Mining Engineering.



September 2021: PE Faculty meeting
UND and UNAM

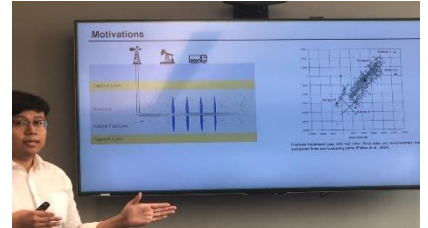


August 2021: PE Faculty meeting UND and UIS

New PE Ph.D. Graduates in Summer 2021

Congratulations to our Ph.D. students who successfully defended their theses during the Second quarter of 2021.

Dezhi Qiu: "Hydraulic Fracture Propagation and Its Geometry Evolvement in Transversely Isotropic Formations", advisor Dr. Vamegh Rasouli.



Dezhi Qiu defending his Ph.D. thesis

Petrobowl Competition Preparation

Petrobowl Training resumed on Sept 8th with presence of several students. The trainings are held weekly on Tuesdays 5pm in the AE2S Boardroom.



Student Chapters Update

ARMA: UND Student Chapter participated in some activities at the ARMA 55th US Symposium and was involved in the ARMA Student Design Competition 2021 and the first annual ARMA Symposium SC Research Competition. Also, they promoted the mentor-student Event and the Photo Contest. They called for new board member positions. The election of the new Officers for 2021/2022 was done.

SEG: During the summer semester, SEG hosted a Rock Physics short course presented by Dr. Reza Saberi from CGG, and a free license of Geosoftware has been obtained for UND students. In September, SEG elected new officers for the 2021/2022 school year.

IADC: During August, the IADC SC members attended the virtual IADC Well Control Conference. The SC participated in the Student Organization Fair, where many students showed interest in joining the chapter. In collaboration with the SPE, IADC SC organized "Digital Transformation in the E&P Industry" hosting experts from Schlumberger, "The Automation and The Future of Drilling with Weatherford" and "The Future Need for Petroleum Engineering" with Chevron Emeritus Medhat Kamel.

SPE: Dr. Foued Badrouchi was named as new Faculty Advisor for the Chapter. SPE continued hosting webinars and preparing for competitions including: The future need for petroleum engineering talk by the 2023 SPE president Dr. Medhat Kamel, "Channel Fracturing and Tight Gas Reservoir Fracturing Half-Length Optimization" by Tayeb Khetib, "Induced Fracture Complexity, When is it Really Required in Unconventional Reservoirs Stimulation" by Leopoldo Sierra, and the preparation for the international round of the SPE Student Paper Contest on September 21st.

Department Statistics

- 90 undergraduate students
- 25 Master students
- 80 PhD students
- 2 Visiting Scholars
- 1 Ph.D. graduates in Q3 2021

Upcoming Events

- **Sep 22:** UND Fall 2021 Virtual Career Expo
- **Oct 21:** IAC meeting and DRACOLA Grand Opening
- **Jan 10:** Classes start
- **Mar 14-18:** Spring Brake
- **Apr 15-18:** Holiday Brake
- **May 9 -13:** Last week of classes For Spring 2022

Contact (WE ARE HERE TO HELP!)

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<https://engineering.und.edu/petroleum/>

Follow our SPE Student Chapter at: <https://involvement.und.edu/organization/SPE>

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