

UNCONVENTIONAL

DEPARTMENT OF PETROLEUM ENGINEERING QUARTERLY NEWSLETTER

June 2021

Issue II

Williston Basin Petroleum Conference (WBPC)

Department of Petroleum Engineering attended the WBPC held in Bismarck May 11-13. Approximately twenty students participated in the event and promoted the department by showcasing the program at the CEM booth. Thanks to ConocoPhillips for kindly sponsoring the booth for the CEM. We also appreciate the support of the conference for offering free registrations to all students.

As part of the side activities, PE students Ahmed Merzoug, Habib Ouadi, Ogochukwu Ozotta, Mohamed Malki, Mason Brisben, Nourelhouda Benouadah and Mouna Benabid ran the T4 program for some of the middle school students in Bismarck to familiarize them with Petroleum Engineering disciplines. They presented interactive sessions with fun activities for students to learn some basics about drilling, reservoir and seismic disciplines.



PE Students with Mr. Harold Hamm



PE Students with Mr. Monte Besler

Winner of SPE Student Paper Concept Competition

Congratulations to Ph.D. student Abderraouf Chemmakh who won the SPE Rocky Mountain Student Paper Contest, which is one of fourteen regional student paper contests at the undergraduate, master's, and Ph.D. levels. Students compete against other students in their region for the opportunity to advance to the International Student Paper Contest held during ATCE. The competition received many applications and only 3 contestants, **all from UND PE department** (Abderraouf Chemmakh, Xueling Song, Ogochukwu Ozotta), were selected to present their work in front of the judging panel. Abderraouf presented a study titled "Machine Learning Predictive Models to Estimate the UCS and Tensile Strength of Rocks". By winning this round, Abderraouf qualifies to participate in the international competition happening during the Annual Technical Conference and Exhibition ATCE 2021 of SPE. Congratulations to all 3 Ph.D. students for this great achievement.

Faculty

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

Adjunct Faculty

- Dr. Thomas Gentzis
Senior Geoscientist at Core Laboratories
- John Harju, Vice President 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

Short Course:

Rock Physics

Presenter: Dr. Mohammad Reza Saberi, senior research advisor for Rock Physics and seismic reservoir characterization at CGG GeoSoftware based in The Hague, Netherlands. May 21- July 30. For further information contact Mohamed Malki: mohamed.malki@und.edu



T4 Event in Watford City

From April 13th to April 15th, The UND Petroleum Engineering Department took part in the T4 Watford event. This event introduced students (Middle and High School) to workforce skills, needs, training and networking opportunity. The aim was to showcase various career paths students can take. Students attending the event are now better able to understand about different industries and needs, so they are better able to choose their path and work toward that. During the event representatives of the petroleum engineering department introduced students to different disciplines that contribute to the oil and gas industry. The UND team delivered interactive hands-on education sessions. Students had fun and got the chance to learn by doing. Thanks to students Ahmed Merzoug, Habib Ouadi, Mohamed Malki, Ogochukwu Ozotta and Maison Brisben who ran the event.



New PE Ph.D. Graduates in Spring 2021

Congratulations to our PhD students who successfully defended their theses during the first quarter of 2021.

- **Omar Bilal Akash:** “Numerical Simulations of Hydraulic Fracturing Through Perforated Wellbores”, advisor Dr. Vamegh Rasouli.



Omar Akash defending his Ph.D. thesis

Student Chapters Update

ARMA: UND Student Chapter will participate in these activities at 55th US Rock Mechanics/Geomechanics Symposium and be involved in the ARMA Student Design Competition 2021 and the first annual ARMA Symposium Student Chapter Research Competition. Also, they will be promoting the Mentor-Student Event and the Photo Contest. The website is: <https://www.armorocks.org/about/student-chapters/>

SEG: Multiple technical presentations were organized including: The Value of Integrated Data Analysis for Geomechanical Characterization of Unconventional Shale Plays by Mehrdad Soltanzadeh, Introduction to Petrel Plug-Ins: The Blueback Toolbox Suite and the Blueback Investigator (Part I & II) by Rene Dam Pedersen, Geological and Geomechanical Modeling of the Haynesville Shale: A Full Loop for Unconventional Fractured Reservoirs by W. Sebastian Bayer Prince.

IADC: In April, IADC elected new officers for the 2021/2022 school year. Officer positions are now held by Mason Brisben(President), Habib Ouadi(Vice President), Ahmed Merzoug(Treasurer), and Abdelhakim Khouissat(Secretary). In May, many IADC members were able to attend the Williston Basin Petroleum Conference in Bismarck. Members were able to make personal connections with industry professionals, attend technical sessions, and meet with IADC representatives.

SPE: The election of the new officers for 2020/2021 was done. Also, several activities and webinars were held including: Monthly meeting with students to discuss their interests and needs, Liquid Loading in Gas Wells and How to Predict the Onset Using Steady-state and Transient Multiphase Flow Models by Auzan Soedarmo, Making Decisions Using Completions Diagnostic Tools in Unconventional Reservoirs by Kyle Haustveit, Hybrid Models to Automate Reservoir Surveillance and Management by Ashwin Venkatraman, ComboCurve Software Training Delivered by Dean Murphy and Production Optimization of Oilfields with ESP-lifted Wells by Milan Stanko.

2021 Dissertation Writing Award

Congratulations to **Shaojie Zhang**, a recently graduate Ph.D. student for the 2021 Excellence in Dissertation Writing Award. Also, congratulation to his advisor Dr. Hui Pu.

Department Statistics

- 90 undergraduate students
- 25 Master students
- 80 PhD students
- 2 Visiting Scholars
- 1 Ph.D. graduates in Q1 2021

Upcoming Events, Fall 2021

- **Aug 23:** Classes start
- **Sept 1:** Last day to add/drop courses
- **Sept 6:** Labor day
- **Nov 11:** Veterans day
- **Nov 24-26:** Thanksgiving
- **Dec 13-17:** Last week of classes

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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