

UNCONVENTIONAL

DEPARTMENT OF PETROLEUM ENGINEERING QUARTERLY NEWSLETTER

September 2020

Issue III

Welcome Back on Campus

With UND's announcement that the fall classes will be 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.

Joint Faculty Hire

We are pleased to welcome Dr. Bao Jia and Dr. Thomas Jo, new Assistant Professors, joined the department in Fall 2020. Both of them are the joint hires with the Energy and Environmental Research Center (EERC). They are expected to teach undergraduate and graduate courses for the department and advise Ph.D. students. Dr. Jia has graduated with a Ph.D. degree from University of Kansas and worked at the EERC prior to accepting this new position. His research work, in the area of reservoir Engineering, will be carried out at the EERC through their industry related projects. Dr. Jo received his Ph.D. degree in Petroleum Engineering from Texas at Austin and worked as Senior Completion and Geomechanics Engineer in different companies including Baker Hughes, BHP Billiton and SK E&P Companies. He will continue working in the same area at the EERC as part of his research assignment. These joint hires offer mutual benefits for the department and the EERC helping to promote the research portfolio of University.

Faculty

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

Adjunct Faculty

- Dr. Thomas Gentzsch
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

DRACOLA Update

The set up of the equipment at the drilling and completion lab (DRACOLA) is advancing. Despite the slow pace of the work due to the COVID-19, the progress has been reasonable and we expect that by end of this year, we will be able to run some preliminary drilling practices in the lab. We are also pleased to announce that Lannie Fladeland, who recently retired from Patterson- UTI Energy, Inc. with over 40 years of drilling experiences, and is now the President and CEO at Bumpa's Consulting, has kindly offered his support to help us with setting up the equipment. With his support and help of other individuals we are hoping to upgrade the lab to the automated operation to simulate the latest industry practices. A number of Ph.D. students, some with years of industry experiences, are working in the lab while doing their projects. We have also developed the DRACOLA webpage where the latest updates and news of the lab can be followed. The webpage link is: <https://engineering.und.edu/academics/petroleum/labs.html>



BNSF railway workers unloading the rail they donated to the Drill Lab. Thanks to BNSF for this generous donation.



WAAIME Scholarship Recipients

In the 100-year tradition, the WAAIME (The Women's Auxiliary to the American Institute of Mining Engineers) Scholarship fund provides financial scholarships to students pursuing earth science degrees including mining, geological sciences, metallurgy, petroleum, mineral sciences, materials science, mineral economics, chemical engineering and other related studies. We are pleased to announce that this year Ph.D. student Ozotta Ogochukwu (Petroleum Engineering) and Onwumelu Chioma (Geology & Geological Engineering) received the WAAIME Scholarship. We congratulate them for this successful achievement.

PE Ph.D. Graduates in Summer 2020

The number of Ph.D. applications we receive is increasing rapidly. Thanks to the NDIC for providing the financial support to our students and helping to make it possible to continue our research during this tough period.

Congratulations to our PhD students, Hyeonseok Lee and Nejma Djabelkhir, who both successfully defended their theses in Summer 2020.

- **Hyeonseok Lee:** Application and Development of Advanced Atomic-scale Analysis and Simulations for Complex Systems, advisor Dr. Mehdi Ostadhassan & Dr. Hui Pu. Hyeonseok has accepted an offer as Energy-Water Postdoctoral Research Associate at Idaho National Laboratory.
- **Nejma Djabelkhir:** Simulation of Notch Driven Hydraulic Fracture in Open Hole Completion, advisor Dr. Vamegh Rasouli & Dr. Branko Damjanac from Itasca Group. Nejma has started a project management position SafetySpect Inc. studying the Corona Virus contamination and disinfection system.



Hyeonseok Lee



Nejma Djabelkhir

Hydraulic Fracture Industry Short Course

We are thankful to Mr. Vibhas Pandey, an Engineering Fellow, Completions, ConocoPhillips for presenting a short course on Hydraulic Fracturing to our students in summer semester. The course was well received by participants and we hope that this course continues in the Fall semester.

UND ARMA Student Chapter

It is with pleasure to announce that students from Petroleum Engineering and Harold Hamm School of Geology and Geological Engineering received approvals to establish UND's American Rock Mechanics Association Student Chapter. Followings are the board members for this year:

President: Jerjes Porlles (PE)

Vice-president: Rebecca May (GGE)

Secretary: Moones Alamooti (GGE)

Treasure: Ozotta Ogochukwu (PE)

Public relation Officer: Abdelmalek Bellal (PE)

The bylaw is finalized and the board has

established a website:

<https://sites.google.com/view/arma-und/home>

IAC Meeting

We are assessing the situation to decide whether to postpone the Fall IAC meeting, to hold it virtually or possibly on campus due to the COVID-19. Further information will be sent to students.



Department Statistics

- 141 undergraduate students
- 17 Master students
- 60 PhD students
- 10 Visiting Scholars

Upcoming Events

- **Oct 12:** Indigenous Peoples' Day
- **Oct 31:** Halloween
- **Nov 11:** Holiday – Veterans Day
- **Nov 13:** Last day to withdraw from term or drop with record
- **Nov 25-27:** Thanksgiving Break
- **Dec 14-18:** Last Week of Classes/Finals Week


Contact (WE ARE HERE TO HELP!)

University of North Dakota, College of Engineering & Mines,
Department of Petroleum Engineering

701.777.2533; 701.335.3601

2844 Campus Road
Collaborative Energy Complex Room 113, Stop 8154
Grand Forks, ND 58202-8154

Department Chair: vamegh.rasouli@UND.edu
Undergraduate Program Inquiry: kegang.ling@UND.edu
Graduate Program Inquiry: hui.pu@UND.edu

<https://engineering.und.edu/petroleum/>
Follow our SPE Student Chapter at: <https://involvement.und.edu/organization/SPE>
Find our College on Facebook: <https://www.facebook.com/UNDCEM> 
or on Twitter: <https://twitter.com/UNDCEM> 