

## Dr. Muhammadu Rabiu Ado

Assistant Professor

### Personal Data:

Nationality | Nigerian  
Date of Hire | 12<sup>th</sup> September 2018  
Date Rank Obtained | 12<sup>th</sup> September 2018  
Department | Chemical Engineering  
Email | mado@kfu.edu.sa  
Office No | 2047  
Office Phone No | 0135897087



### Education:

Academic Degree	Major	specialty	Place of Issue	Address	Date
Doctorate (PhD)	Chemical Engineering	Petroleum Engineering	University of Nottingham, UK	Nottingham, UK	13th July 2017
Masters (M.Sc.)	-	-	-	-	-
Bachelor (B.Sc.)	Chemical Engineering	Chemical Engineering	University of Nottingham, UK	Nottingham, UK	18th July 2013

### PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions):

PhD	Numerical simulation of heavy oil and bitumen recovery and upgrading techniques
Master	-

### Experiences:

Title of Job	Address of Work	Country	Date
National Youth Service Corps (NYSC) Member	Chemical and Petroleum Engineering Department, Bayero University Kano	Nigeria	From <a href="#">May 2017</a>
			To <a href="#">April 2018</a>
Postgraduate Teaching and Marking Assistant	Department of Chemical and Environmental Engineering, University of Nottingham	UK	From <a href="#">Oct. 2013</a>
			To <a href="#">March 2017</a>
Resident Tutor	Hugh Stewart Hall, University of Nottingham	UK	From <a href="#">Sep. 2014</a>
			To <a href="#">Sep. 2015</a>
Engineering Foundation Year Demonstrator and Marking Assistant	University Park, University of Nottingham	UK	From <a href="#">Sep. 2013</a>
			To <a href="#">Sep. 2015</a>
Graduate Research Assistant	University Park, University of Nottingham	UK	From <a href="#">Jun. 2013</a>
			To <a href="#">Sep. 2014</a>
Undergraduate Research Assistant	University Park, University of Nottingham	UK	From <a href="#">Jun. 2012</a>
			To <a href="#">Aug. 2012</a>

### Research Interests:

1. Thermal enhanced oil recovery
2. Reservoir simulation
3. In situ catalytic upgrading of heavy oils and bitumen

### Publications:

#	Name of author(s)	Title of Publication	Publisher and Date of Publication	Link of Publication
1	Ado, M. R.	Improving oil recovery rates in THAI in situ combustion process using pure oxygen	Upstream Oil Gas Technology, 2021	<a href="#">Click Here</a>
2	Ado, M. R.	Understanding the mobilised oil drainage dynamics inside laboratory-scale and field-scale reservoirs for more accurate THAI process design and operation procedures	Journal of Petroleum Exploration and Production Technology, 2021	<a href="#">Click Here</a>
3	Ado, M. R.	Improving heavy oil production rates in THAI process using wells configured in a staggered line drive (SLD) instead of in a direct line drive (DLD) configuration: detailed simulation investigations	Journal of Petroleum Exploration and Production Technology, 2021	<a href="#">Click Here</a>
4	Ado, M. R.	Detailed investigations of the influence of catalyst packing porosity on the performance of THAI-CAPRI process for in situ catalytic upgrading of heavy oil and bitumen	Journal of Petroleum Exploration and Production Technology, 2021	<a href="#">Click Here</a>
5	Ado, M. R.	Use of two vertical injectors in place of a horizontal injector to improve the efficiency and stability of THAI in situ combustion process for producing heavy oils	Journal of Petroleum Exploration and Production Technology, 2021	<a href="#">Click Here</a>
6	Ado, M. R.	Comparisons of predictive ability of THAI in situ combustion process models with pre-defined fuel against that having fuel deposited based on Arrhenius kinetics parameters	Journal of Petroleum Science and Engineering, 2021	<a href="#">Click Here</a>
7	Ado, M. R., Greaves, M., Rigby, S. P.	Effect of operating pressure on the performance of THAI-CAPRI in situ combustion and in situ catalytic process for simultaneous thermal and catalytic upgrading of heavy oils and bitumen	Petroleum Research, 2021	<a href="#">Click Here</a>
8	Ado, M. R., Greaves, M., Rigby, S. P.	Simulation of catalytic upgrading in CAPRI, an add-on process to novel in-situ combustion, THAI	Petroleum Research, 2021	<a href="#">Click Here</a>
9	Ado, M. R.	Impacts of Kinetics Scheme Used to Simulate Toe-to-Heel Air Injection (THAI) in	ACS Omega, 2020	<a href="#">Click Here</a>

		Situ Combustion Method for Heavy Oil Upgrading and Production		
10	Ado, M. R.	Predictive capability of field scale kinetics for simulating toe-to-heel air injection heavy oil and bitumen upgrading and production technology	Journal of Petroleum Science and Engineering, 2020	<a href="#">Click Here</a>
11	Ado, M. R.	A detailed approach to up-scaling of the Toe-to-Heel Air Injection (THAI) In-Situ Combustion enhanced heavy oil recovery process	Journal of Petroleum Science and Engineering, 2020	<a href="#">Click Here</a>
12	Ado, M. R.	Effect of reservoir pay thickness on the performance of the THAI heavy oil and bitumen upgrading and production process	Journal of Petroleum Exploration and Production Technology, 2021	<a href="#">Click Here</a>
13	Ado, M. R.	Simulation study on the effect of reservoir bottom water on the performance of the THAI in-situ combustion technology for heavy oil/tar sand upgrading and recovery	SN Applied Sciences, 2020	<a href="#">Click Here</a>
14	Ado, M. R., Greaves, M., Rigby, S. P.	Numerical simulation of the impact of geological heterogeneity on performance and safety of THAI heavy oil production process	Journal of Petroleum Science and Engineering, 2019	<a href="#">Click Here</a>
15	Ado, M. R., Greaves, M., Rigby, S. P.	Effect of pre-ignition heating cycle method, air injection flux, and reservoir viscosity on the THAI heavy oil recovery process	Journal of Petroleum Science and Engineering, 2018	<a href="#">Click Here</a>
16	Ado, M. R., Greaves, M., Rigby, S. P.	Dynamic Simulation of the Toe-to-Heel Air Injection Heavy Oil Recovery Process	Energy & Fuel, 2017	<a href="#">Click Here</a>

#### Language Proficiency:

1. English (Full proficiency)
2. Hausa (Native speaker)
3. Arabic (Elementary level)