

The Shell Petroleum Development Company of Nigeria Limited

Operator of the NNPC/SPDC/TotalEnergies/NAOC Joint Venture



University Relations Quarterly 2023 Connect with Shell/JV Centres of Excellence

Presented by

Prof. S. S. Ikiensikimama

Chair Occupant

Shell JV-Aret Adams Petroleum Engineering Chair (SAAPC)

Petroleum and gs Engineering Department

University of Port Harcourt

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BRIEF INTRODUCTION

- The Chair since its inauguration 2021 has been able to run smoothly after the initial hassles. The initial work-plan was submitted in August 2021.
- The Chair has contributed to human capacity development and mentorship in the Department of Petroleum and Gas Engineering through energy driven and innovative research in University of Port Harcourt and will continue to do so.
- The Chair also looks forward to assisting good students, collaborate with other researchers on quality research and also engage in quality research as a way to moving the Chair forward.

BRIEF INTRODUCTION

The Mission, Vision and Core Value of the Chair are:

Mission

To meet the Research & Development (R & D) needs of the Oil and Gas Industry

Vision

Harnessing Available Human Capital Potentials through Quality Research, Innovation and Collaboration

Core Values (DICT)

Diligence, Integrity, Commitment and Teamwork

Partnership in Applied Science and Engineering Technology (PASET) Activities

As the Coordinator PASET Grant, Uniport

- Regional Scholarship and Innovation Fund (RSIF) is the flagship programme of the Partnership for Skills in Applied Sciences, Engineering and Technology (PASET), an Africa-led, World Bank-affiliated initiative.
- RSIF offers a unique and historic opportunity for African countries to train new doctoral students in high quality PhD programmes in applied sciences, engineering and technology, at an affordable cost in competitively selected African universities partnered with international universities.
- Beyond doctoral training, RSIF systematically nurtures research capacity by fostering partnerships between universities and domestic and international firms to find solutions to local challenges

Partnership in Applied Science and Engineering Technology (PASET) Activities

- RSIF supports training, research and innovation in five Priority Thematic Areas:
 - (1) ICT including big data and artificial intelligence,
 - (2) Food security and agri-business,
 - (3) Minerals, mining and materials engineering,
 - (4) Energy including renewables and
 - (5) Climate change.
- University of Port Harcourt, Nigeria is one of the 15 African Host Universities (AHUs) participating in the fourth priority thematic area of Energy including renewable.

Partnership in Applied Science and Engineering Technology (PASET) ACTIVITIES

Activities For Period Under Review

- Participation in 31st RSIF Students seminar held on 1st March 2023
- Participation in RSIF Training Courses: Information Literacy Course held on 17th, 20-21st March 2023
- Participation in RSIF presentation by Korea Institute of Chemical Technology held on 18th April 2023
- Participation in presentation by Mohammed IV Polytechnic University (UMP6) on Opportunities for Sandwich Training held on 9th May 2023
- Participation in AHUs Coordinators, supervisors and IPI Information Seminar held on 25th May 2023
- Participation in RSIF Training Courses: Technical Monitoring and Evaluation Workshop held on 29th-30th May 2023

Partnership in Applied Science and Engineering Technology (PASET) ACTIVITIES

- Participation in 35th RSIF Guest Webinar held on 31st May 2023
- Participation in RSIF International Partners Institute presentation held on 13th June 2023
- Participation in presentation by Universite Cote d'Azur held on 27th June 2023
- Participation in 36th RSIF Guest Webinar held on 28th June 2023
- Participation in 35th RSIF Students Webinar held on 5th July May 2023
- Participation in 37th RSIF Guest Webinar held on 26th July 2023
- Participation in RSIF Training Workshop held on 24th-28th July May 2023
- Participation in 36th RSIF Students seminar held on 2nd August 2023

Partnership in Applied Science and Engineering Technology (PASET) ACTIVITIES

- Participation in Online Review for PASET Cohort V students' admission held on 9th August 2023
- Participation in RSIF Information Literacy: Web of Science and Article Review Training held on 17th August 2023
- Presentation by the World Vegetable Center held on 29th August 2023
- Participation in 38th RSIF Guest Webinar held on 30th August 2023
- Participation in PASET RSIF IL Training held on 31st August 2023

RESEARCH INCUBATION AND MATURATION FORUM (RIMF)

- **Purpose:**
- Research Incubation and Maturation Forum (RIMF) is established to cater for the research needs of the PhD and Masters students under my supervision and mentorship.
- **Commencement Date:** Effective March 2023
- **Times of Meeting:** Every second and last Tuesdays of every month.
- **Objectives of the RIM Forum** are to:
 - - Give focus and direction to the different varying research topics of the Scholars
 - - Allow robust discussions on the various research interests by the contributions from other Scholars
 - - Help incubate and mature research findings for possible patents filing and spin-offs.

Presentations In RIMF

- Had presentation for 2 PASET PhD Scholars and 2 masters students 4/04/2023
- Had presentations for 2 PhDs and 4 Masters students 30/05/2023
- Held meeting with PASET Students 31/05/2023
- Presentation with PhD and Masters Students 06/06/2023
- Had presentations with PhD and Masters students 13/06/2023
- Had presentations with PhD and Masters students 27/06/2023
- Had presentations with PhD and Masters students 11/07/2023
- Had presentation with Masters and PhD research students 25/07/2023
- Had presentations for PhD and Maters research students 08/08/2023
- Had presentation with Masters' students 29/08/2023

UNIVERSITY ACTIVITIES

- Assessment for three members of Staff from the faculty 31/05/2023
- Attended Senate Meeting 07/06/2023
- Attended Faculty A & PC for professorial assessment 08/06/2023
- Attended Valedictory service at senate chambers 09/06/2023

FACULTY AND DEPARTMENTAL ACTIVITIES (TEACHING AND EXAMINATIONS)

DEPARTMENT

Chairman: Departmental Graduate Board

- Attended PGD Proposal Defence at the Department 03-04/05/2023
- Held seminar presentation with PG students
at the department 12/07/2023
- Attended graduate board meeting 13/04/2023
- Invigilated PNG 403.1: Exams 20/07/2023

FACULTY AND DEPARTMENTAL ACTIVITIES

- Worked on Departmental Appraisal documents 05/05/2023
- Had lectures on Natural Gas processing PNG 508.2
with Year 5 Students 11/09/2023
- Had Lectures with Year 5 students on Natural Gas Processing 18/09/2023
- Attended Departmental Board Meeting 18/09/2023
- Had lectures on Petroleum Economics with Year 5 Students 15/09/2023

FACULTY AND CENTRES ACTIVITIES

FACULTY

- Invigilated ENG 402.1 Exams on Engineering Economics 12/07/2023
- Attended Faculty PhD presentation 26/07/2023
- Assessment for three members of Staff from the faculty 31/05/2023

OTHER CENTRES IN THE UNIVERSITY

- Attended Seminar presentation for ACE-CEFORS Students 11/04/2023
- Attended Graduate School Seminar for ACE-CEFORS Student 22/09/2023
- Taught Advanced Petroleum Economics and Management at ACE-CEFORS 20/09/2023

OTHER UNIVERSITY

- **An Adjunct Professor at Kenyatta University, Nairobi, Kenya**
- **Lead:** Petroleum Production Engineering
- **Taught three courses:**
 - **EPL 400:** Petroleum Production Engineering II
 - **EPL 412:** LNG Production and Handling
 - **EPL 511:** Artificial Lift Methods

OTHER UNIVERSITY

- Taught Kenyatta University Students Online EPL 400 09/05/2023
- Taught Kenyatta University Students Online EPL 400 23/05/2023
- Taught Kenyatta University Students Online EPL 400 06/06/2023
- Taught Kenyatta University Students Online EPL 400 13/06/2023
- Taught Kenyatta University Students Online EPL 400 27/06/2023
- Had lectures on LNG, EPL 412 with Kenyan Students 06-09-2023

OTHER UNIVERSITY

- Had lectures with Kenyan Students on Artificial Lift, EPL 511 07/09/2023
- Had lectures on LNG, EPL 412 with Kenyan Students 13/09/2023
- Had lectures with Kenyan Students on Artificial Lift, EPL 511 14/09/2023
- Had lectures on LNG, EPL 412 with Kenyan Students 20/09/2023
- Had lectures with Kenyan Students on Artificial Lift, EPL 511 21/09/2023

SAAP CHAIR RELATED AND OTHER ACTIVITIES

CHAIR RELATED ACTIVITIES

- Attended stakeholders Holder Meeting 12/04/2023

5. OTHER ACTIVITIES

- Hosted delegates from BASF Chemical Company on tour to Flow Assurance Lab for possible collaboration 16/06/2023
- Started work on revamping Flow Assurance and Drilling laboratory 15-22/06/2023

2023 Targets/Goals & Key Performance Indicators

- **CONFERENCE ATTENDANCE**
- ICGH10 Held July 9th – 14th in Changi Singapore was not attended due to financial constraints as a result of cash policies introduced
- **Other Conferences with papers**
- Attended the Nigerian Annual International Conference and Exhibition (NAICE) 2023 from 31st July -2nd August 2023 in Lagos, Nigeria
- EGYPES 2024 to be held in Egypt from 19th -21st February 2024
- International Petroleum Technology Conference (IPTC) 2024 to held in Saudi Arabia 12-14th February 2024

2023 Targets/Goals & Key Performance Indicators

Short Course attendance: Decarbonization & Carbon Financing - NAICE 2023

- Short Course Series Conference 27th - 30/07/23

PUBLICATIONS

- Conference Paper from NAICE 2023
- Virtue Urunwo Wachikwu-Elechi, **Sunday Sunday Ikiensikimama** and Joseph Atubokik Ajenka (2023). Inhibition Effect of Brassicales Plant Extract (BPE) on Methane Gas Hydrate Formation in Gas Dominated System. SPE Paper 217155-MS Presented at Nigerian Annual International Conference and Exhibition (NAICE) held in Lagos, Nigeria. <http://dx.doi.org/10.2118/217155-MS>

2023 Targets/Goals & Key Performance Indicators

PATENTS

- The Chair has as its vision harnessing available human capital potentials through quality research, innovation and collaboration.
- Some of these quality research has been able to produce innovation which need protections in the name of patents.
- **Filed Patent:** A New Approach of Controlling the Activities of Sulphate-Reducing Bacteria (SRB) in the Reservoir during Water Injection
- **Patents Under Compilation**
 - ✓ Plant Gums in Formulation of Gas Hydrate
 - ✓ Plant Extracts in Formulation of Gas Hydrate Inhibitors

2023 Targets/Goals & Key Performance Indicators

- Mentorship and Supervision of Post Graduate and Undergraduate Students
- 2 Masters Graduated (2 Males)
- Other 21 PhD, 12 Masters (post graduates) are under mentorship and five (5) undergraduates have just been assigned
- Other **21** PhD (**13 Males & 4 Females**); **12** Masters (**7 Males & 2 Females**) (post graduates) are under mentorship and five (5) undergraduates (**4 Males & 1 Female**) have just been assigned

2023 Targets/Goals & Key Performance Indicators

PUBLICATIONS (IN VIEW)

- **Gas Hydrate Inhibition in a Laboratory Mini Flow Loop: Efficacy of a Locally Sourced Natural Extract** Presentation ID: 1057 for EGYPES 2023
- "Evaluation of A Pristine Bio-Extract for Simulated Offshore Gas Hydrate Mitigation" Manuscript ID: ao-2023-073716, Journal: ACS Omega
- "Mitigating Gas Hydrate Formation In Deepwater Operations Using Red Onion Skin Extract (rose)" control number: IPTC 2024-P-5523-IPTC
- Comparative Analysis of Cissus Populnea (Okoho) and Sodium Carboxymethy Cellulose (CMC) Polymers for Enhanced Oil Recovery (EOR). Paper ID 136

2023 Targets/Goals & Key Performance Indicators

- **OTHER ACTIVITIES OF 2023**

Going forward the Chair has had an approval from the Chairman of Board of Trustees who is also the Vice Chancellor of the university to carry out some activities such as:

1. Workshop on pertinent industry software
2. Students quiz competition
3. Students paper contests.

- These programmes are aimed at, having objectives as

- i. Enhance petroleum Engineering education in the University and beyond
- ii. Enhance the visibility of the Chair
- iii. Assist and encourage students in their academics

- **Strikes, unstable academic calendar, election matters have caused take off delay.** The unstable academic calendar has caused take off delays

Other On-going Activities of 2023

- Development of database for green hydrate inhibitors
- Incorporating Holistic Flow Assurance Research
- Revamping the Drilling/Cementing Laboratory

FINANCIAL RECORDS (OR ACTIVITIES) FOR SECOND QUARTER OF THE YEAR 2023

This section outlined financial activities of the Chair for the second quarter of the year 2023

Table 1: Budget Expenditure Summary

S/No	Budget Items	Amount (₦)
1	Total Emolument for Shell Chair	3,332,110.50
2	Premium @ 28%	932,990.94
3	Emoluments for 1 Research Fellow	900,000.00
4	Running Costs (Imprests, maintenance, furniture, patent)	229,000.00
	Conference (registration, accommodation, logistics, support for students and faculty)	335,000.00
	Total	

FINANCIAL RECORDS (OR ACTIVITIES) FOR SECOND QUARTER OF THE YEAR 2023

- **Table 5: EMOLUMENTS**

		Monthly Allowance	Bi-Annual Allowance
			(6 months)
1.	Chair Occupant		
• a.	Normal Renumeration (NR)	555, 351.75	3,332,110.50
• b.	Premium@28% of NR	155,498.49	932,990.94
• c.	Total Renumeration (TR)	710, 850.24	4,265,101.44
2.	Research Fellows (1)	Monthly Allowance	Bi-Annual Allowance
			(6months)
• a.	Renumeration (R)	150,000.00	900,000.00
•	Total		900,000.00

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THANK YOU FOR YOUR ATTENTION