

## YAW AKYAMPON BOAKYE-ANSAH

- OBJECTIVE** To be a leading researcher and authority in energy engineering.  
To advance research in reservoir engineering, groundwater flow and foam drainage.  
To help mitigate global energy concerns through research (pollution, energy availability, CCS).
- EDUCATION** **UNIVERSITY OF STRATHCLYDE, U.K., PhD, CHEMICAL AND PROCESS ENGINEERING, 2017-2021.**  
Dissertation “Comparative Study of Drainage in Soils and Foams: Early-time and Late-time Solutions”.
- POSTGRADUATE CERTIFICATE**  
Researcher Professional Development profile
- UNIVERSITY OF ABERDEEN, U.K., MSc. OIL AND GAS ENGINEERING, 2012-13, Distinction.**  
Dissertation, “Infiltration of an Oil Spillage into Dry Porous Media”
- KWAME NKURUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, GHANA, BSc PETROLEUM ENGINEERING, 2005-2009, Second Class Upper.**  
Dissertation, “Field Estimation Methods: Case Study”.  
Training in general engineering and core Petroleum Engineering disciplines.
- PUBLICATIONS** Boakye-Ansah, Y.A., Grassia, P. **Comparing and Contrasting Travelling Wave Behaviour for Groundwater Flow and Foam Drainage.** *Transp Porous Med* 137, 255–280 (2021). <https://doi.org/10.1007/s11242-021-01562-w>
- Boakye-Ansah, Y.A., Grassia, P. **Similarity solutions for early-time constant boundary flux imbibition in foams and soils.** *Eur. Phys. J. E* 44, 111 (2021). <https://doi.org/10.1140/epje/s10189-021-00112-y>
- Antwi, M., Appiahene, P., & Boakye-Ansah, Y. A. **Promoting Afforestation for Sustainable Communities through Gamification.** *Journal of Energy and Natural Resource Management (JENRM)*, 1, 2 (2019). <https://doi.org/10.26796/jenrm.v1i2.130>

**WORK**

**LECTURER, UNIVERSITY OF ENERGY AND NATURAL RESOURCES, SUNYANI, 2014- date**

**HISTORY**

Lecturer in Petroleum Engineering.

Developed curricula and taught first-year through fourth-year undergraduate level courses aimed at training personnel for energy industry.

Consistently received very good to excellent student assessment (ranging from 4.4 to 4.8 on a 5-point scale) for courses taught.

Supervised third- and fourth-year projects in Renewable Energy and Petroleum Engineering, and postgraduate Environmental Engineering student.

**Other Service:**

**Ag. Head of Department, Departmental Board Secretary, Department Examinations Officer, Member** of Committee to present guideline for undergraduate dissertation requirements, **Secretary** to Student-Staff Liaison Committee, **Board Member, UTAG Electoral Commission (Secretary), Board Member (GREENA FM, IRO, etc.)**

**TUTOR, UNIVERSITY OF STRATHCLYDE, GLASGOW, U.K., January 2018- December 2020**

Tutor for Petroleum Engineering, Applied Maths and Problem Solving, Fluid Mechanics, Chemical Engineering Lab (MATLAB), Mass Transfer, and Process Safety.

Marked and graded student coursework (Petroleum Engineering, Mass Transfer, and Process Safety).

**FIELD ENGINEER, EXPRO GULF LIMITED, TAKORADI, October 2010 - May 2011**

Repair and maintenance of surface Well Testing equipment.

Pressure-testing pipes and surface testing equipment (surface tank, choke-manifold, separator, etc).

Worked offshore on Jubilee Drill Stem Testing projects.

**LWD ENGINEER 1, BAKER HUGHES GHANA LIMITED, TAKORADI, December 2009 – August 2010**

Repair and maintenance of Coring equipment.

Repair and maintenance of LWD/MWD equipment and mud motors for international projects.

Repair and maintenance of Well Logging and Reservoir Characterisation Instruments.

Loading and packing and unloading of Drilling, Logging and Coring equipment.

**INTERN, GHANA NATIONAL PETROLEUM CORPORATION, TEMA, June 2007 – July 2007**

Undertook training in core processing and analysis.

Undertook training in general petroleum engineering and business.

Attended conferences, seminars and workshops.

- CONFERENCES AND SEMINARS** **United Nations Office for Outer Space Affairs (UNOOSA). 2022.** Participant. 5th International Conference
- British Mathematics Colloquium / British Applied Mathematics Colloquium (BMC/BAMC) 2021.** March 2021. Virtual Conference. Oral and poster presentation. “Similarity solutions for early-time infiltration in foams and soils”
- EUFOAM 2020 Conference, 6<sup>th</sup>-9<sup>th</sup> July 2020.** Virtual Conference, Aberystwyth University. Poster Presentation. “**Similarity solutions for early-time infiltration in foams and soils**”.
- DSMS 2020.** Oral Presentation. “**Sensitivity of Travelling Wave Solutions to Richards’ Equation to Soil Material Property Functions**”
- EUFOAM 2018, 9-12 July 2018.** Liege, Belgium. Oral Presentation. “Groundwater Flows, Foam Drainage and Oil Recovery”.
- Researcher Celebration Event 2019.** Chemical and Process Engineering Department, University of Strathclyde. September 2019. Oral Presentation. “**Comparing and contrasting travelling wave behaviour for groundwater flow and foam drainage.**”
- Researcher Celebration Event 2018.** Chemical and Process Engineering Department, University of Strathclyde. September 2018. Poster Presentation. “**Groundwater Flow, Oil Recovery and Foam Drainage.**”
- PROJECT SUPERVISION** **University of Energy and Natural Resources.** 2015-2018. 2021-  
Undergraduate Petroleum Engineering project supervision. 110+ students  
Undergraduate Renewable Energy Engineering. 10+ students  
Postgraduate project supervision. 1 student  
**University of Strathclyde. 2020**  
Postgraduate project supervision. 36+ students
- SCHOLARSHIPS AND AWARDS** **GNPC Foundation Scholarship for PhD, 2017-2021** (estimated at **GBP 100,000**).
- Ghana Education Trust Fund (GETFund) Scholarship for Masters in Oil and Gas Engineering, 2012-2013** (estimated at **GBP 25000**).
- Winner, Maiden SPE YP Europe PetroLeague 2013.** Cash prize of **GBP 2000**.
- SKILLS** **Teaching skills.** Lecturing graduate and undergraduate degree programme coordination.  
**Leadership skills.** Representative for programme on School of Engineering Board.  
**Effective communication.** Verbal and written.  
**Good computing skills.** Microsoft Suite. Experience in ECRIN, PIPESIM. Programming in MATLAB.  
**Machine and hand tools operation skills.**  
**General laboratory skills.**

**TEACHING SERVICES** **University of Energy and Natural Resources.** Assistant Lecturer/Lecturer. (2015-2022)

**Undergraduate Courses**

PENG 151 Survey of the Petroleum and Energy Industries

PENG 102 Overview of Petroleum Industry

RENG 102 Introduction to Energy Systems

EENG 204 Applied Geophysics

PENG 203 Petroleum Geophysics

PENG 207 Introduction to Geology

PENG 203 Basic Swimming and Offshore Safety

PENG 202 Reservoir Petrophysics

PENG 201 Reservoir Fluid Properties

PENG 303 Reservoir Engineering 1

PENG 304 Reservoir Engineering 2

PENG 305 Drilling Engineering 1

PENG 312 Well Test Analysis

PENG 404 Petroleum Law

PENG 308 Practical Evaluation of Oil and Gas Fields

PENG 405 Petroleum Project Management and Economics

PENG 413 Environmental Management in Petroleum Industry

**Postgraduate Courses**

EEMA 712 Management of Oil, Gas and Mining Waste

**University of Strathclyde.** Tutor. 2018-2020

**Undergraduate Courses**

Introduction to Chemical Engineering (Practical Excel Laboratory)

Applied Mathematics and Problem Solving 1

Applied Mathematics and Problem Solving 2

Process Safety Engineering

Chemical Engineering Laboratory. (MATLAB Laboratory)

Mass Transfer and Separation Processes

Fluid Mechanics

Advanced Separations

**Postgraduate Courses**

Petroleum Engineering

**CURRICULUM DEVELOPMENT** **Member.** Committee tasked to develop postgraduate curriculum for Land Degradation Neutrality (LDN). September 2021.

Spearheaded design of MSc Natural Gas Engineering and Management. October 2021. (Submitted to School Postgraduate Committee in April 2022.)

Ongoing projects

Spearheading design of PhD Petroleum & Natural Gas Engineering. October 2021.

Spearheading design of MSc Petroleum Engineering. October 2021.

Spearheading design of MSc/MPhil Petroleum and Natural Gas Enterprise Management. February 2022.

Spearheading design of MSc/MPhil Subsea Engineering and Management. February 2022.

Spearheading design of MSc/MPhil Petroleum Economics and Financing. February 2022.

Spearheading design of MSc Safety and Reliability Engineering. August 2021.

Developed a framework for postgraduate students training at the Department of Energy and Petroleum Engineering. October 2021.

**PROFESSIONAL ACHIEVEMENTS** **UNIVERSITY OF ENERGY AND NATURAL RESOURCES (UENR)**

Ag. Head of Department, Petroleum and Natural Gas Engineering

Lecturer in Petroleum Engineering at UENR.

Spearheaded acquisition of education software worth **GBP 1.4M** from Petroleum Experts (2016); **25 licenses** from KAPPA Engineering (2016), and **10 educational licenses** from GEOSOFT (2015).

Reviewed and enhanced Petroleum Engineering programme curriculum content.

Facilitating Petroleum Engineering Laboratory set-up.

**PROFESSIONAL ASSOCIATION**

Winner, Maiden Society of Petroleum Engineers (SPE) Young Professionals (YP) Europe PetroLeague 2013 (Member of winning KAMA team).

**FIELD ENGINEER, EXPRO**

Installed Emergency Shutdown (ESD) system on the Deepwater Millennium Drillship for drilling operations off West Cape Three Points, Ghana in 2011.

High job performance rating from the operator on the SDR Eirik Raude (Tullow Operations at the Jubilee Field, Ghana, March 2011).

**CURRICULUM DEVELOPMENT**

Developed and submitted curriculum for MSc/MPhil Natural Gas Engineering and Management for further input and review at the Department. (2021)

Developed curricula for further review at the Department of Petroleum and Natural Gas Engineering. (See Curriculum Development Section)

- COMMITTEES AND SERVICE**
- Acting Head**, Department of Petroleum and Natural Gas Engineering (February, 2022-date)
  - Acting Head**, Department of Energy and Petroleum Engineering (24<sup>th</sup>-26<sup>h</sup> January 2022)
  - Board Member**, School of Energy (2022-date)
  - Board Member**, School of Engineering (2015-2017, 2021-2022)
  - Board Member**, International Relations Office (2021-date). School of Engineering Rep (2021-22) and School of Energy Rep (2022-).
  - Chief Invigilator**, End of Second Semester Examination (2020/21)
  - Board Member**, Greena FM (2015-2017)
  - Cognate Board Member, School of Engineering (2022-date)**
  - Chairman**, School of Energy Quality Assurance Committee (2022-date)
  - Chairman**, National Energy Quiz Committee (2021)
  - Chairman**, The Gas Challenge (Organised by Ghana Gas Company Limited). (2021)
  - Academic Tutor**. (2015-2017, 2021-date)
  - Secretary**. UTAG-UENR Electoral Commission (2015-17, 2021-date)
  - Chairman**. Committee to review draft policy for Accommodation of International students. (2022).
  - Member**, Committee to propose formation of School of Energy (2021)
  - Member**, School of Engineering Quality Assurance Committee (2021-2022)
  - Secretary**, Committee for moderating end of semester exams (DEPE, 2021)
  - Departmental Board Secretary** (DEEE, 2015-2016).
  - Department Examinations Officer** (DEEE, 2016 – 2017).
  - Member**. Committee to present guideline for undergraduate dissertation requirements (DEEE, 2015).
  - Secretary**, Student-Staff Liaison Committee (DEEE, 2015-2017)
  
  - Led UENR team at the 7<sup>th</sup> Renewable Energy Fair, 2021 (AICC).
  - Part of team that trained UENR students for the 2<sup>nd</sup> Gas Challenge (2021).
  - Bootcamp for selection of postgraduate students for EEMA and SEEMA programmes (2021).
  - Representative for Department of Energy and Petroleum Engineering.
  - Member** of committee to propose establishment of Bui Campus for Energy training (2021).
  - Speaker at final year student’s Guidelines for Writing Dissertation for Undergraduate Research seminar (July, 2020/21, April 2021/22).
  - Fellow at RCEES. (2021-date)
- REFERENCES** Available on request.