

10<sup>th</sup> International Conference and Expo on **Oil and Gas**  
&  
9<sup>th</sup> International Conference on **Petroleum Engineering**

September 23-24, 2019 London, UK

**Natural gas supply chain resilience through optimization**

Emenike Scholastica  
University of Glasgow, UK

The global consumption for natural gas rose by 5.3% or 195 billion cubic meters (bcm) in 2018. With increasing global demand for energy, natural gas is regarded as the essential bridge between today's conventional energy resources and future options. Research shows its potentials in being an excellent source due to its ability to be supplied to a wide range of sectors and ample availability that is estimated to be 6,879 trillion cubic feet (Tcf) globally. As an emerging important fuel for heating, electricity generation and industrial process, it is projected to be the cleanest and most hydrogen-rich fuel, coupled with its high energy conversion efficiencies for power generation. It has consistently been a reliable source of energy therefore, it is imperative to provide functional and responsive supply chain to deal with rising demand through optimization to guarantee resilience. This paper is motivated by the disparity in demand and supply caused by disruption of process systems in the midstream of natural gas supply network and the projected continuous rise in energy demand. The motive of this work is to investigate the impact of adopting mitigation strategy to build a resilient supply chain network for natural gas and to propose a novel optimization channel for greener gas supply.

**Biography**

Emenike Scholastica is currently a PhD Researcher at the University of Glasgow, United Kingdom. She has her Master degrees at the University of Exeter and ARU Cambridge. She has previously worked in the Oil and Gas Industry in Nigeria where her passion for natural gas grew owing to the fact that developing countries with huge natural gas still have enormous challenges for domestic gas utilisation which has constantly affected economic development.

s.emenike.1@research.gla.ac.uk

**Notes:**