ANTHONY EDU

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EDUCATION_

University of Aberdeen, United Kingdom BEng Chemical Engineering (Graduated June 2019) Upper Second Class Honours Thesis topic: "Hydrogen For Renewable Heat And Fuel: Feasibility And Design"

WORK EXPERIENCE_

FARMCHEM ENGINEERING MANAGEMENT LIMITED – Process/Renewable Engineer (November 2021 to Present)

(Provide complete engineering solutions particularly pre-commissioning and commissioning worldwide all across the chemical and petrochemical industry)

<u>SOLAR PREFEASIBILITY STUDY</u>

Conducted a prefeasibility study on the possibility of using a large scale solar system to supply electricity to the national grid, reduce natural gas consumed by the power companies and allow this natural gas to be purchased for feedstock by methanol production companies. The scope of this included:

- \circ Performed calculations to determine the capacity and scale of the project.
- Met with global suppliers of solar equipment to ascertain the potential cost of the project.
- Liaised with industry leaders in the solar industry to determine the best technology for use in the project.
- Prepared a financial spreadsheet for calculating the cost of proposed project.

• GREENSOL BLENDING SYSTEM

Involved with the design and commissioning of a chemical blending system alongside a multidisciplinary team of engineers, riggers and electricians for GreenSol Limited.

- Aided project manager with the initial design and layout of the system.
- Conducted leak tests on the vessels, piping and equipment.
- Successfully commissioned an 80bbl blending tank.
- Successfully commissioned a 20bbl blending tank.
- Completed a blend of 50bbl of mud for Schlumberger to be used in their offshore drilling activities.
- Conducted re-design of blending system to allow for the installation of a new hopper unit.
- Procured necessary piping, valves and other equipment to implement the new deign in the field.
- Completed a second blend of 50bbl of mud for Schlumberger to be used in their offshore drilling activities.

• NIQUAN GTL PLANT

Engineering support for the commissioning of the NiQuan GTL plant which is the first plant of its kind in the western hemisphere. The plant converts natural gas to zero sulphur diesel. The work done for this included:

- Provided support with implementing updates to the post HAZOP P&IDs
- \circ $\,$ Produced a drawing using Microsoft Visio to show the plant MP Boiler Feed Water system.
- Organized the delivery of high pressure nitrogen to be used for leak checking of the hydrocracker system.
- Produced drawings of new flow orifices that needed to be manufactured and installed on the bearings of the syngas compressor and the recycle gas compressor.
- Conducted purging and leak checks of the Prism system using Nitrogen to ensure it was available for the introduction of gas.
- Conducted purging and leak checks of the Fischer Tropsch system using Nitrogen to ensure it was available for the introduction of gas.
- Worked with Tucker Energy to conduct the chemical cleaning of the heat exchanger in the hydrocracker system to remove deposit in the exchanger to enable proper cooling of wax in the hydrocracker system.
- Made a procedure to prepare the heat exchanger in the hydrocracker system for chemical cleaning.

- o Delivered several loads of liquid caustic soda (3000 gallons per load) to NiQuan.
- Part of a team that conducted the risk assessment for the implementation of a level control scheme in the fractionation column of the hydrocracker system.
- Part of a team that conducted the risk assessment for the refurbishment of a decommissioned hydrogen line to be used for the transfer of naphtha and diesel for rework in the fractionation system.
- Conducted an investigation into all outstanding MOC's on the plant to enable the issuance of the most up to date P&ID's to plant personnel for use.

• SHELL BLENDING AND STORAGE FACILITY

Provided support to investigate the possibility of refurbishing and old lube oil blending facility into a facility that could be used to blend and store chemical. The work done for this included:

- \circ $\;$ Gathered information on the scale of repairs that would need to be carried out to refurbish the facility.
- \circ Reviewed previous inspection reports for the plant to determine the current state of the plant.
- \circ Collated costs and timescale of these repairs into a report format.

GREEN HYDROGEN

Research and investigation into renewable hydrogen technologies and solutions. This work is done primarily to aid the company with its short and long term goals of transitioning into more renewable, sustainable and environmentally friendly technologies. The work done for this included:

- Collating all research and findings on renewable hydrogen technologies and companies into a continuously updated report.
- Connecting and networking with companies and individuals that already provide renewable solutions or are transitioning into the renewable energy space.
- Attended the Hydrogen Expo in Houston where we were able to meet with industry leading companies and individuals in the renewable energy space to discuss potential partnerships.
- Attended the Hydrogen Expo in Bremen to further expand upon the knowledge and contacts from the first conference in Houston.
- Assisted operators from the Foerster Group with the reformer tube inspection they conducted at the Nu-Iron plant on the Point Lisas Estate in Trinidad and Tobago.

PRIVIDA POWER LIMITED – Technical Associate (March 2021 to August 2021)

(A renewable energy business operating in the United Kingdom, Nigeria and Cameroon)

- Designed ways to advertise the company's Solar Home Systems to boost their exposure
- Aided preparation of proposals to try and secure funding of up to \$5 million

INSOLITUS NIGERIA LIMITED – Technical Support/Assistance (May 2020 to February 2021)

(Organisational and talent development consultancy)

- Provided technical support and assistance
- Aided with the development of online training course

CRESTECH ENGINEERING LIMITED – Process Engineering Intern (September 2019 to March 2020)

(An engineering design & project management company that provides services for onshore and offshore oil and gas)

- Developed a simulation of a 200mmscf/d capacity natural gas metering station for a client using Aspen Hysys
- Performed line sizing calculations for liquid, gas and two phase flow in a pipe using the methods in API 14E
- Drafted and edited over a dozen P&IDs to match the designs requested by the clients using AutoCAD

DSTV – Network Operations Intern (July to August 2018)

(Largest direct broadcast satellite service in Sub-Saharan Africa with over 13.5 million subscribers)

- Monitored 50+ TV broadcasting towers nationwide to check for any generator and telecommunication issues
- Coordinated with field engineers on an almost daily basis to ensure the upkeep of all the towers

SEPLAT PETROLEUM – Process Engineering Intern (July to August 2016, July to August 2017)

(One of the leading independent oil and gas operators in Nigeria)

- Took the initiative to create a programme to train several interns on the differences between PFDs and P&IDs
- Compiled a record of all the on-going projects for the year ensuring information on them was easier to find
- Presented information to the project team about the planned future projects that had yet to begin

- Drafted multiple PFDs and P&IDs of the oil and gas production plants owned by the company.
- Aided with the recruitment of a suitable candidate to fill a position on the team.

SKILLS_

OPERATING SYSTEMS: Windows Operating Systems, Mac OS SOFTWARE: Microsoft Office Suite (Word, Excel, PowerPoint, Visio, etc.), Aspen Hysys, AutoCAD CERTIFICATIONS: PLEA, Confined Space Training LANGUAGES: Native English