

# Adan Malik

Pakistan Petroleum Limited  
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## Education

**B.E. Petroleum Engineering**, NED University of Engineering & Technology 2016-2020  
CGPA: 3.88/4.00 (Rank: 6<sup>th</sup>)

- Dissertation: Stress Analysis of Completion String for Deep and Ultra High-Pressure Gas Well (Supported by Pakistan Petroleum Limited (PPL))
- Student Activities: Sponsorship lead, Student Energy NEDUET Chapter, 2019-2020

**Intermediate**, Pre-Engineering, St. Lawrence Govt. Degree Girl's College 2014-2016  
Grade: A-1

**Secondary**, Karachi Public School 2012-2014  
Grade: A-1

## Research Experience

Undergraduate Research Project, NED University of Engineering & Technology 2018 – 2020  
Department of Petroleum Engineering

**Advisor:** Hassan Ahmed (Deputy Chief Engineer, Production Technology)

About this project:

- Researched types and causes of completion stresses, along with their applied equations, theoretical underpinnings, and constraints.
- Developed MS-Excel spreadsheet based on the stress equations, to assess the axial limits of various tubulars.
- Designed a completion string for a high-pressured well using Weatherford's completion designing tool "WELLCAT™" and evaluated tubing stresses under varying wellbore conditions.
- Conducted sensitivity analysis on pore pressure and stress analysis on packers, along with anchored and floating completion configuration to ensure their integrity throughout the well life.
- Provided a comprehensive guideline for designing and procurement of equipment for completing an HPHT well.

This project resulted in my bachelor's dissertation. It was supported by Pakistan Petroleum Limited.

## Research Papers

1. Prediction of temperature in geothermal reservoirs using hydro geochemical concentrations with machine learning algorithms. ([Github link](#), in progress)
2. Comprehensive stress analysis of completion string in HPHT wells under different load conditions (in progress).

## Professional Work Experience

**Trainee Petroleum Engineer, Pakistan Petroleum Limited** Jul 2022-Present

- Collaborate with senior management on reservoir simulation studies for two ongoing projects.
- Conduct Fluid Composition Analysis, BHP Analysis, Well Testing Analysis (Kappa-Saphir), P/Z Analysis, MDT Interpretation, Prosper and MBAL Modelling.

**Trainee Intern, Field Development, Pakistan Petroleum Limited** Mar 2021-Apr 2021

- Prepared and presented a presentation highlighting the Technical Overview of the Field Development Department to senior management.
- Developed a thorough understanding of field appraisal, the field life cycle, field development processes, and concept selection.

**Trainee Intern, Kandhkot Asset, Pakistan Petroleum Limited** Aug 2019-Oct 2019

- Established stratigraphic co-relation from logs to identify the zone with optimum reserves.
- Maintained MS Excel spreadsheet for computing well economics.
- Developed Mbal, Prosper, and GAP models from raw data.

**Trainee Intern, Sui Southern Gas Company** Sep 2018-Oct 2018

- Coordinated with different departments and evaluated the network of sales gas plants.
- Established a sound understanding of natural gas and its properties, Pigging, Hot tapping and Cold cutting, Transmission, Distribution and service Pipelines, and Gas Chromatography.

**Courses/Training**

- |   |             |
|---|-------------|
| • Machine Learning with Python (IBM ML0101EN), IBM Cognitive Class  | in-progress |
| • Python for Data Science (IBM PY0101EN), IBM Cognitive Class   | 2023        |
| • Advanced Excel & Power BI, Irfan Bakaly   | 2023        |
| • Advance Gas Condensate & Reservoir Management, Whitson  | 2023        |
| • Well Testing Design & Interpretation (PT/RT Analysis), KAPPA  | 2023        |
| • Reservoir Simulation, IHRDC, supported by PPL   | 2022        |
| • SAP-ERP Functional Consultant-Materials Management, Excellence Delivered – NAVTAC                                       | 2021        |
| • Project Management Professional, NED University of Eng. & Tech. PM framework, PM lifecycle & phases, PM knowledge areas | 2020        |

**Skills**

- |           |                               |
|-----------|-------------------------------|
| • Python  | • Kappa-Saphir                |
| • Prosper | • WellCAT                     |
| • MBAL    | • MS Word, Excel, PowerPoint. |
| • GAP     | • Schlumberger ECLIPSE        |
| • Petrel  | • T-Navigator                 |
| • OFM     | • Fluid Modeler               |

**Selected extra-curricular activities**

- |  |           |
|--|-----------|
| • Sponsorship Lead, Student Energy NEDUET Chapter  | 2019-2020 |
| • Member, Society of Petroleum Engineers (SPE) NEDUET Chapter  | 2018-2019 |
| • Co-organized “International Virtual Event for Sustainable Energy Future 2020”.   |           |
| • Co-organized “4 days international course on Hydraulic Fracturing by Hernan Buijs in April 2020.   |           |
| • Co-organized technical lecture “Hydrostatic testing of Oil and Gas Pressure Equipment” by Engr. Silvia Pizzigoni, Planning & Production Engineer at Petrovalves, Italy on 10th May 2020. |           |

- Co-organized “Success Journey from NED University to Stanford University and Silicon Valley”, with Engr. Arhamna Batool Haider, Applied Scientist at Amazon Intelligence Team on 20th June 2020.
- Co-organized “Energy in Developing Countries”, with Engr. Abdelnaser Dwaikat, President of the Association of Energy Engineers, on 10th July 2020.
- Co-organized lecture on “Energy Industry Trends, Leadership and Building a Robust Career” by Mr. Syed Asim Rashid, President & CEO of Creative Swan. December 19th, 2019.’