بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

MONA MAGHRABY

Cairo University

MODELLING THE PERFORMANCE OF THE WESTERN DESERT GAS COMPLEX FRACTIONATION TOWERS USING ARTIFICIAL NEURAL NETWORKS

By

Omar Ahmed Badr El-Din Mohamed

A Thesis Submitted to the
Faculty of Engineering at Cairo University
in Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE
in
Petroleum Engineering

FACULTY OF ENGINEERING, CAIRO UNIVERSITY
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Under the Supervision of

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Title of Thesis:

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Key Words:
Natural Gas Processing; Prediction for the Performance of the Fractionation Towers; Artificial Neural Network; ANN

Summary:

This work presents the use of the artificial neural network in modelling the performance of the fractionation towers in the natural gas processing plants. The methodology presented targets to build a well-constructed artificial neural network and further be used for prediction applications. The general methodology is implemented on one of the largest gas processing plants in Egypt, the western desert gas complex (WDGC).

Disclaimer

I hereby declare that this dissertation is my own original work and has not been submitted to any organization or institution of any sort for any purposes. Further, I acknowledged that the sources used have been cited in the references.

Name: Omar Ahmed Badr El-Din Date:6/4/2021

Dedication

This work is dedicated the late ***Dr. Ahmed Badr El-Din***

You were a great friend before an incredible father,

A great engineer before a pioneer in our beloved industry.

You taught me to stay strong in this ever-changing life

I promise I'll do my best to make you proud.

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Prof. Dr. Ahmed Hamdy El-Banbi,
Prof. Dr. Mahmoud Abu El-Ela,

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