LAKE NASSER/NUBIA INLAND NAVIGATION

By

Dalia Ahmed Fouad Mostafa Negm

A Thesis Submitted to the
Faculty of Engineering at Cairo University
in partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY
in
Irrigation and Hydraulics Engineering

FACULTY OF ENGINEERING, CAIRO UNIVERSITY
GIZA, EGYPT
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Under the Supervision of

Prof. Dr. Mohamed Sherif El-Manadely

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Head of Irrigation and Hydraulics Department
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Prof. Dr. Medhat Saad Aziz

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Director of Nile Research Institute
National Water Research Center

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FACULTY OF ENGINEERING, CAIRO UNIVERSITY
GIZA, EGYPT
2017

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Title of Thesis: **Lake Nasser/Nubia Inland Navigation**

Key Words: Lake Nasser/Nubia – Navigable Channel - Lake Morphology – Delft3D Model

Summary:

Lake Nasser/Nubia (LNN) is considered one of the largest artificial lakes in the world. After construction of High Aswan Dam (HAD), the sediment deposits upstream the dam in LNN, which may cause navigation problems between Egypt and Sudan. The aim of this study is to design a proposed sustainable submerged channel for navigation purposes in LNN, predict the morphological changes for several scenarios that represent the maximum, average, minimum and the critical condition of the inflow to the lake. Also, study the effect of the dredging operation on the study area.

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DEDICATION

To

My beloved parents

, My lovely Husband Hany & My Son Mohammed

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