



شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



شبكة المعلومات الجامعية

@ ASUNET



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

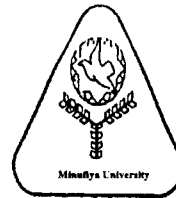
To be Kept away from Dust in Dry Cool place of
15-25- c and relative humidity 20-40%

بعض الوثائق الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

624,1

Minufiya University
Faculty of Engineering
Civil Engineering Department
Shebin El-Kom, Egypt



Faculty of Engineering
Shebin-El-kom

METHODS OF REDUCTION OF SCOUR AROUND PIERS OF BRIDGE

A thesis submitted by

۴۷۱۵۰۰
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B.Sc. in civil Engineering, Al-Azhar University (1983)
M.Sc. in Civil Engineering, Minufiya University (2002)

To be awarded of the degree of Ph.D. in Civil Engineering
(Irrigation and Hydraulics)
In the field of Hydraulics

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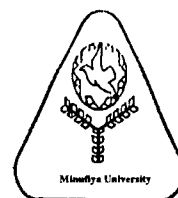


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STATEMENT

This thesis is submitted to the department of Civil Engineering, Faculty of Engineering, Minufiya University, to be awarded the Ph. D.

Thesis title:

"METHODS OF REDUCTION OF SCOUR AROUND PIERS OF BRIDGE"

The work in this thesis has been carried out by the Researcher in the Hydraulics Research Institute (HRI) and Water Resources Research Institute (WRRI), National Water Research Center (NWRC), Ministry of Water Resources and Irrigation (MWRI).

No part of this thesis has been submitted to any other university or institute to be awarded any degree or qualification.

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Signature:

Date:

The researcher has signed the above statement.

Supervisor

Head of the Department

DEDICATION

It is of a great pleasure to dedicate my Ph.D thesis
To my father's soul
To my mother
To my wife (Architectural Engineer): Mona Saker
To my sweetheart who encourage me all the time

My beloved sons,

Khaled El- Berkawy

Tarek El-Berkawy

And my daughter, Youmna El-Berkawy

To all of them, my deepest gratitude

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Mostafa El-Berkawy

