بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

MONA MAGHRABY

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التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

MONA MAGHRABY

CFRP STRENGTHENING OF STEEL-RC COMPOSITE BEAMS- A PARAMETRIC STUDY

By

Mona Mahmoud Abdel Fattah

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
STRUCTURAL ENGINEERING

FACULTY OF ENGINEERING, CAIRO UNIVERSITY
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Under the Supervision of

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Title of Thesis:

CFRP Strengthening of Steel-RC Composite Beams- A Parametric Study

Key Words:
Composite I -beam; Strengthing; Non-linear analysis; Fiber; I-beam;

Summary:
The thesis presents an analytical investigation for the flexuralcapacity of composite I beams and straight beams with Carbon fiber reinforcement polymer. A non-linear finite element model has been established considering several parameters: beam dimension,Length thickens the layer of carbon, to study the flexural strength for the I-beam compositerestrained compression flange.

Disclaimer

I hereby declare that this thesis is my original work and that no part of it has been submitted for a degree qualification at any other university or institute.

I further declare that I have appropriately acknowledged all sources used and have cited them in the references section.

Name: Mona Mahmoud Abd El fattah

Signature:

Dedication

I would like to dedicate this thesis to **my father,mother,brother,and sister** for their hopes and encouragement and are always behind me for success. I would not have achieved this work without their help.

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