الآية

قال تعالي :

﴿ يرفع الله الذين آمنوا منكم
والذين أوتوا العلم درجات
والله بما تعملون خبير ﴾

صدق الله العظيم

سورة المجادلة

Dedication

I dedicate this work with sincere regards and gratitude to my loving family, For their support in bringing out this study amid harsh political circumstance, Where the Yemenis th people are bearing the suffering.

Also I dedicate this work to who like the learning, to all our friends and all who made this project come true, to my dear parents and brothers.

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تجـــريـــــد

تناولت هذه الأطروحة دراسة انواع البلاطات كنظام إنشائي بصفة عامة والبلاطات المعصبة بصفة خاصة.

حيث تم دراسة تحليل وتصميم بلاطة الهوردي أوالبلاطات المعصبة باستخدام انوع مختلفة من المواصفات والاشتراطات لبعض الكودات العالمية مثل:

الكود المصري ECP203-2007 ،الكود البريطاني BS8110-1:1997 ، والكود الأمريكي ACI318-08 ،وتمت مقارنة نتائج التحليل والتصميم للكودات المختلفة من اجل الحصول على الكود الأمثل من حيث الاقتصادية والأمان لعمل مقارنة بين البلاطات المسطحة (FLAT SLAB) وبلاطة الهوردي (HOLLOW BLOCK SLAB) .

حيث وجد أن بلاطة الهوردي (HOLLOW BLOCK SLAB) نظام أنشائي مناسب لبلد حار كالسودان نظرا لما يتميز به عن غيره من المميزات كما أنه اقل تكلفة من البلاطة المسطحة (FLAT SLAB) .

ABSTRACT

In this thesis, one of structural member which called slabs are studied as general and in particular one of this types hollow block slab as structural system.

This structural system is a new method of construction for flooring system is used in Sudan, and this research is covering this type which is included the analysis and design of hollow block slab using different provisions codes: Egyptian cod (EPC 203-2007), American code (ACI 318-2005) and British code (BS 8110-1997).In additional to reinforcement detailing and construction method.

The results of analysis and design by codes are compared to find the code designable achieving economical and safety.

The economical and safety code is used to analysis and design tow floors system; flat slab and hollow block slab and compare results to find the best system and lesser cost.

This thesis is concluded to that hollow block slab is suitable system because the lowest cost and other features make it suitable structural system for hot places like Sudan.