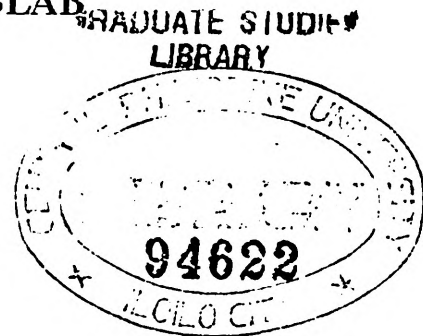


**A COMPARATIVE ANALYSIS OF STRENGTH AND COST
OF PRECAST FERROCEMENT REINFORCED
CONCRETE SLAB and CONVENTIONAL
REINFORCED CONCRETE SLAB.**



**A SPECIAL PROBLEM
PRESENTED TO
THE FACULTY OF THE SCHOOL OF GRADUATE STUDIES
CENTRAL PHILIPPINE UNIVERSITY**

**IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE
MASTER OF ENGINEERING**

BY:

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ABSTRACT

Reinforced concrete is the most common and very popular construction material being used in the Philippines. The ingredients of reinforced concrete - cement, aggregates, water and other admixtures are sourced locally and of lower cost compared to structural steel and other imported construction materials.

It is the purpose of the study to present an alternative method of constructing a reinforced concrete slab using the pre-cast method. This method may sound common to those who are engaged in construction business but the researcher is inclined to believe that improvement of an existing product is always a necessity. Conventional concrete pre-cast elements are conventionally made up of concrete and reinforcement. In this study a pre-cast ferrocement reinforced concrete slab shall be considered.

A comparative analysis shall be done for strength of pre-cast slab and its equivalent conventional one. Strength provisions shall include bending, shear and deflection. Slabs supports shall be one way and along the short span.

A comparative analysis of a conventional slab and pre-cast slab shall be presented using a 5.0 m by 5.0m panel. This analysis will include cost of materials and labor. Materials cost computation shall include concrete, reinforcements, wire meshes, forms and false works and labor cost shall include only the direct labor cost and no supervisory cost.

It is the object of the study to determine whether the pre-cast ferrocement reinforced slab is cost efficient and adequate in terms of strength compared with the conventional slab.