

**PROPOSED DESIGN OF A CONVENTION CENTER
IN INDANG, CAVITE**

Design Project

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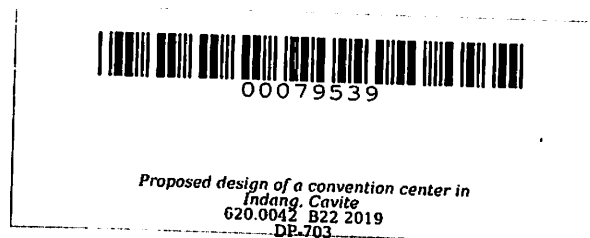
Indang, Cavite

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**PROPOSED DESIGN OF A CONVENTION CENTER
IN INDANG, CAVITE**

Undergraduate Design Project
Submitted to the Faculty of the
College of Engineering and Information Technology
Cavite State University
Indang, Cavite

In partial fulfillment
of the requirements for the degree
Bachelor of Science in Civil Engineering



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ABSTRACT

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This study aimed to design and develop a Convention Center in Indang, Cavite.. Specifically, it aimed to: (1) provide an architectural and structural design of a multi-purpose convention center in Indang, Cavite; (2) propose an electrical and plumbing plan of the structure; and (3) provide a bill of materials as well as the estimated cost of the project. The entire study focused on making an architectural and structural plan of the proposed convention center. The project is designed to be reinforced concrete for its superstructure and steel for its roofing system. It also included the construction cost estimate of the project. In conclusion from the gathered data of design processes, the researchers found the following observations: (1) the design parameters of the convention center proposed in the structural analysis were found to have the most economical sections and properties; (2) the steel and concrete structures of the building were found to be stable and safe in connection with the STAAD analysis; (3) the efficiency of the structural members were found to be safe and within the allowable efficiency; and (4) serviceability of the structures is also confirmed. The total cost of the project was found to be P 56,274,976. Compared to the serviceability of the project and its projected effects to the general public and the municipality as cited in the literatures, the proposal is considered to be very economical and returns of investments will surely be realized by the government in only a short span of time.

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INTRODUCTION

Indang, officially named as the Municipality of Indang, is a first class municipality in the province of Cavite, Philippines. According to the 2015 census, it has a population of 65,599 people. The municipality consists of the Poblacion and surrounding *barangays* with a total land area of 8,920 ha. Appleton (1996) once stated that an aspect of the quality of urban and rural life is the provision of places where people can gather in formal and informal settings. Having this many people, the municipality of Indang does not have the proper facility to hold its own conventions and gatherings, for instance, for sports, academic gatherings and recreation, as well as facilities for the display of its existing cultures, products and the like that can boost its tourism projects. Places where cultural preservation events can take place are also inexistent.

Duranton (2014) as cited by Knoll (2014) from his study “Growing through Cities in Developed Countries” stated in his study that the degree of urbanization of a country and its per-capita income has long been recognized to have a positive correlation in