

**A Proposed Structured Cabling System of De La Salle
Health and Sciences Campus' New Academic
Building**

**A Project Paper
Presented to
The Faculty of Graduate School
Adamson University**

**In Partial Fulfillment
Of the Requirements for the Degree of
Master in Engineering
Major in ECE**

Conrado D. Monzon

March 2006

SEP 05 2006

ABSTRACT

Title : **A Proposed Structured Cabling System of De La Salle Health and Sciences Campus' New Academic Building**

Proponent : **Conrado D. Monzon**

Adviser : **Engr. Evelyn Raguindin**

School : **Adamson University**

No. of Pages : **85**

Year : **2006**

Degree : **Master in Engineering Major in ECE**

This study was conducted to present a proposal for the structured cabling system of De La Salle Health and Sciences Campus' New Academic Building. The profile of the building was identified as regards to dimensions, type of equipment to be installed and the number of equipments. These profiles are the parameters to the design of the structured cabling system. A structured cabling system is composed of subsystems that include work area subsystem, horizontal cabling subsystem, telecommunication closet subsystem, riser backbone subsystem, equipment room subsystem, and campus cabling subsystem. Campus cabling subsystem was not considered in this study since the proposal is limited to one premise only and campus cabling involves two or more premises.

The study was specifically concerned on the sizing and locating the equipment room and telecommunication closets, and the delivery method of the horizontal and backbone cabling. The design was intended for integrating the voice, video, data, security system, and building management system into one

cabling system only to achieve system flexibility, efficiency, ease of operation and cost effectiveness. Industry standards in cabling were used as reference to the design.

Based on the determined parameters of the building as to dimensions, type, location and number of equipment, the proponent came up with a cabling design that is within the industry standards recommendations. The equipment room was sized and located, telecommunication closets were sized and located and the delivery method for horizontal and backbone cabling were identified. Pathways for the cables were planned where all the devices that need to be wired or networked were provided access. Locations of the equipment room and telecommunication closets were designed for best efficiency and economy.

Recommendations:

Upon completion of this study, the proponent recommends the following:

1. That the proposed design be implemented to De La Salle Health and Sciences Campus' New Academic Building.
2. Another research be conducted to find out if the cabling system can also be integrated with the electrical wiring system to further cut the cost of construction.
3. Further study be made on the following:
 - 3.1 Availability of new models of cables and equipments that are being used in the cabling industry.

- 3.2 Adaptability of the system for new cables and equipment.
- 3.3 Capability of the proposed system for future expansion.
- 4. The cabling system of other proposed building be patterned after this proposal.

