

# DE LA SALLE UNIVERSITY

## Abstract

The research project determined the current practice in the local airconditioning industry as far as design is concerned and developed computer programs written in TURBO PASCAL for each stage of the design work - cooling load calculations, air duct sizing and pipe sizing.

The data inputed for cooling load calculations are limited only for comfort cooling in Metro Manila area. The cooling load program uses the traditional "steady-state" method. The air duct design program uses the equal friction method and gives the designer a choice of several rectangular duct dimensions. The pipe sizing program is limited only to refrigerant piping using R-12 and R-22.

The developed computer programs were evaluated using actual design project data in the industry and sample problems in selected airconditioning handbooks. The softwares processed easily, quickly and systematically the inputed data and determined the most accurate, economical and efficient design.

