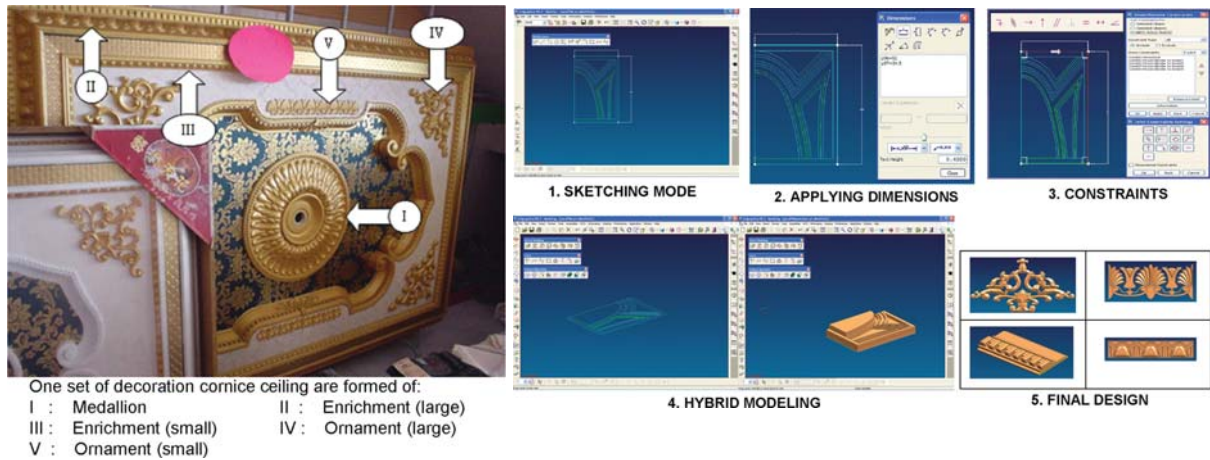


ABSTRACT

Similar to any other conventional design process, designing cornice ceiling patterns exert lots of time and energy. Even with regard of time and energy waste, the quality and satisfaction of customers with the products still inevitable. A research is done to overcome these problems and the outcome is to develop a new generic system for cornice ceiling pattern design, using the parametric method with the help of computer-aided design software (CAD). A few selection of software available with these features but the one for this project is UnigraphicsNX2. It is an interactive system that allows users to program the drawing by its features so that the drawing can be used over and over again with different parameters. Creating a library file system and integrated with 3D modeling and 3D-Printer for making prototype products. For existing cornice pattern design, a reverse engineering was done. Measurement of cornices dimension were taken manually by ruler, caliper etc. Drawing simplification and sketching are done before proceed to technical drawing phase (CAD). CAD drawing than converted to .STL format since 3D-Printer only apprehends with these format. Conversion is done using the UniGraphicsNX2. Prototype size was scaled down to smaller size than the original, small enough to be produced by 3D-Printer. The prototype produced then been used as master model for silicon mould. And finally, from the mould, a cornice product was produced. At the end of the day, the purpose of integration with 3D-Printer is to observe how well the system works with advanced manufacturing technologies.

System Development



FIELD OF INVENTION

The present invention relates to new generic system for cornice ceiling pattern design, master modeler, faster and easy, user friendly, user-interface that could represent accurately and faster modeling time.

THE PRODUCT



NOVELTY & ADVANTAGES

This project is just one of methods to simplify designing process of cornice pattern. The compatibility with production process could attract manufacturer's attention to this system. Designing cornice patterns may be claimed as artist job rather than engineers. With the help of this system that provide the patterns, the only thing to do is to insert new parameter to give slight modification to the cornice shapes. Parametric modeling is a captivated domain to be studied but the most important thing is how convenience it is in engineering sake. In industry particularly, entrepreneurs are able to reasonably benefit from it.

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