

## **Abstract**

The objective of this study was to make improvements on the design of residential air conditioners in order to satisfy market requirements and achieve manufacturing cost reduction by at least 10%. The focus was on the condensing units of residential air conditioners. The research began with collecting data on customers' needs and using quality function deployment (QFD) technique to analyze the data. The outcome of QFD was the quality characteristics and their relative importance. Such data was used as the basis for setting design priority, which was found to be product structure. In making design improvement, the product was classified into groups of parts, with cost estimation and analysis on cost reduction. This was followed by analysis on quality and design problem solving. It was found that product cost was decreased from current by 10.25%.