**REDESIGNING OF ELECTRIC PLUG FOR ASSEMBLY TIME REDUCTION USING DFA**

**Abstract**

Assembly time reduction during product development is an important task to meet the competitiveness in the market. Design for Manufacture and Assembly (DFMA) plays a key role in product development, especially in industries like aerospace, wherein variety in component geometry is more. Design for assembly (DFA) is a systematic procedure to maximize the use of components in the design of a product. Parts count reduction is one of the basic principles of DFA. Many of the companies successfully used this technique for product design improvement. The aim of present work is to propose a new design of electric plug assembly that is better in design efficiency, total assembly time. The analysis is done by using Boothroyd Dewhurst DFA method. There is a reduction in number of parts from 16 to 11 after redesign of electric plug assembly and assembly time is reduced from 87.4 s to 33.9 s. Design efficiency is improved from 36% to 64.89%. Assembly is an important stage in product development and accounts for one third of the labor time. Reducing the number of parts simplify design and enable easier and faster assembly.