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Application of ECQFD for Enabling Environmentally Conscious Design

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Abstract : Growing business recognizes environmental consciousness as an important concept for survival in the competitive scenario. Environmental consciousness is a critical intersection between manufacturing and product design processes with environmental issues and concerns. This article presents a project in which quality function deployment (QFD) for environment (ECQFD) has been applied to rotary switches for enabling environmentally conscious design in the early stage of product development. ECQFD is capable of handling simultaneously the environmental and traditional product quality requirements. ECQFD consists of four phases. ECQFD phases I and II are concerned with the identification of parts that are important in enhancing environmental consciousness. ECQFD phases III and IV are concerned with the evaluation of effect of design improvement on environmental quality requirements. The case study has been practically validated which indicated the receptivity of applying ECQFD in industrial scenario.

Keywords: quality function deployment, environment, product design, design for environment, rotary switches

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