

Biomimicry as a means of Innovation and Sustainability in the Field of Product Design

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Abstract:

Companies and productive institutions seeking to keep pace with proceed progress, increase competitiveness through innovation of new products, the development of existing products, and provide design solutions that retains its entity in the local markets, and globally.

As the nature was the source, and the permanent fount of ideas that industrial designer can be inspired and innovated everything new by them in order to achieve the welfare of humanity and meet the needs of the necessary products, Biomimicry came as a branch of knowledge seeks to achieve sustainability, raise the efficiency of the product, and reduce raw materials and costs, from here came the problem of research, where the rapid development of the economy, and the world of products, as well as environmental pressures that imposed on companies to rethink its policies and arrange their positions even in line with those of development and pressures

The research aims to guide the Industrial Designers, and those in charge of research and development in companies to the importance of applying Biomimicry as a tool for innovation in product design.

The research is based on the analytical descriptive approach: the information about the Biomimicry is collected in terms of its concept, definition and principles, as well as the concept, definition and levels of innovation. The concept of sustainable design is identified and the interaction between Biomimicry, innovation and sustainability is determined in the design of the industrial product.

The research reached a set of results which the most important application is that Biomimicry as Ideology, and design methodology due to achieve competitiveness and sustainability, and reached also to a set of recommendations, the most important that emphasis on the need to apply Biomimicry in the field of product design, and has pursued a descriptive analytical method

Keywords: product design, Biomimicry, Sustainability, Competitiveness, Innovation, Inspiration from Nature.