## Ideas for small scale enterprises inspired by international experience in utilizing shipping containers from the concept of sustainable design

## Dr. Gehan Foad

Lecturer, Industrial Design Department, Faculty of Applied Arts, Beni Swef Univerrsity, <a href="mailto:dr.gehanfoad@gmail.com">dr.gehanfoad@gmail.com</a>

## **Abstract:**

According to the current economic situation which the country is faced, and as a result of rising unemployment, which is a disaster requiring stand up and draw attention, and with all the efforts made by the state efforts to create job opportunities for young graduates, but it is still not enough so far , which made us look and try to find solutions and ideas new small enterprises to apply the principles of sustainability, the industrial designer and engineer in various specialties in other countries have a very important role in providing ideas and innovative solutions to contribute to the progress and resolve problems, and these solutions take advantage of the old shipping containers and shape of the structural and accumulation and not to be exploited, where the architect began to take advantage them and re-designed to be used as a unit of housing for low-income and then evolved to be used for more than that were used for purpose, hence the designers thinking went also to be used and re-designed small enterprises contribute to creating job opportunities for graduates, and not only that, but established a specialized companies and offices in that it is marketing those projects. Hence is the responsibility of the designer and the Egyptian engineer that provides solutions and new innovative ideas by taking advantage of the experiences of different countries in the use of these accumulated container ports and roadsides in Egypt that rust without the benefit of them resulting in the question why we do not exploit those containers and solving the problem through them, so research aims to monitor the positive aspects of the exploitation of the old containers in different countries, adaptation and how to use them in a scientific manner through the possibilities of design have industrial designer and architect through new ideas to facilitate life, with an emphasis on sustainable design principles, and thus clear. Taking into account a range of environmental, economic, social, technological, technical and political considerations that are incompatible with each other at times during the design process, in parallel and simultaneously, and contain many details but it is characterized by its propensity to use, making sure to establish the principles of sustainability to re-container design process, and the attention of designers and engineers need to get to a sustainable designs to be those appropriate projects to the surrounding environment and meet the needs and requirements of graduates and young people to be active in the community in the near future. The results: It found that the transfer of expertise and benefit from the experiences of different countries, and follow up on all that is new, confirm the role of the industrial designer in the ability to find solutions to problems, and also the development of new ideas and innovations and promotion, it is then it can environmental friendly products to achieve, and be focus on sustainable design, reuse, recycling, and the use of clean energy, with a recommendation on the need to take advantage of international experiences and that achieve sustainability in design, and to benefit from their expertise in order to serve our environment, and to increase awareness of the importance of small enterprises and to clarify its role in economic development.

## **Keywords:**

Small Scale Enterprises, Shipping Containers, Sustainable Design

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