

ABSTRACT

The objective of this report is to present the development of a prefab prototype module and self-sustainable in energy and water. It is intended to be completely autonomous, capable of to answer all basic needs of its residents.

Over the ages we have witnessed an increase of the population and consequently a high consumption of energy resources, water and wastes. With the increase of the populate, the humanity started to constructe many buildings, houses, bridges and bridge motorways with the objective of improving the quality of life and satisfaction of basic needs of the human being. However, such constructs have brought quite negatives environmental impacts. This impacts affected the preservation of natural resources entailing serious consequences to human life. For this reason, it is essential to look for solutions which minimize such impacts somehow.

This project arises within the framework of environmental and social sustainability, looking for a solution to be adopted in order to minimize environmental impacts.

Keywords: module, sustainability, renewable energy, environmental impact natural resources, innovation.
