

Algae Lighthouse is a proposal that promotes the importance of applying innovative technologies towards solving environmental problems that we -as a human race- have generated, this global problem is one of the reasons why our project will attract communities around the world.

The proposal uses the idea of algae facade containing 9500 bio-lamps, this technology was invented by which will provide microalgae, transforming the CO₂ from the environment and convert it into oxygen (the tower can capture around 95 Ton of CO₂ each year). These Biolamps will be able to be illuminated through LED lights powered by batteries and photovoltaic cells, resulting in a show of Greenlights at night, that would be seen from different parts of the city and would be friendly to the surrounding wildlife. These lamps can be rotated in different orientations, this will produce a dynamic facade over time, similar to a natural living plant or animal.

Our project is supported by a triangular base tower, distributing the weight and dynamic forces by the action of diagonals. The material structure of the tower is steel: it is a material that can be recycled and can produce light and porous structures, which reduces shadow on the environment, in addition to being prefabricated structures, reducing time, costs and environmental impact when it is built.

We propose to place the tower on the E side where the tennis courts and the highway are because being far from the SAP Center is better viewed from different parts of the city. A treeless esplanade is proposed around the tower so as not to obstruct the visual perspective of the tower. Side D would be left intact in terms of design, to mitigate the impact to wild flora and fauna that this could represent.

From the inside, algae lighthouse can be used as a vantage point in the city for visitors that can climb from the base to the top by low slope staircases, allowing to enjoy several stops during the ascension. In between, they can interact with the algae lamps and the wind crossing the structure. At the top, the visitors can get a panoramic view of the park, the city and the valley.

As a sculptural object, the tower is dynamic thanks to the facade, that adapts its shape subtly by sun and wind, evolving in a spectacular organic provocation, bringing light during the night to the park.