ELEN leaf - electric vehicle charging station



category Charging station

location Zagreb

year project 2012.

size 50 m2

client HEP

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status completed 2016.

—iF design award 2017, category Public architecture

—Award at the Croatian design Exhibition 1718 category - product design professional section

- -53rd Zagreb Salon The Decade 2008.-2018.
- -Croatian design Exhibition 1718

project description

Elen Leaf is electric vehicle charging station, the first in Croatia to use solar energy for power. It consists of a canopy with solar panels, ultrafast charging stations and a distinctive totem. This technology and design unique charging station is a combination of electromobility and application of renewable energy sources. The design of the station is inspired by the biological manufacturing process that triggers all life on earth – photosynthesis. The primary location of photosynthesis in plants is a leaf, so it was perfectly natural for the cell design to communicate precisely that ecological aspect. In addition, the green-coloured gradient that moves from light green to dark green, almost black, to the top blended with the black color of laminated monocristal solar panels, on clearly articulated surfaces suggests the process of charging the car.

The station with its surface covers a standard parking space, so there is no usurpation of the space. A type object like this can be construction in various locations, and thanks to its modularity it can be manufactured and mounted relatively quickly. Steel construction skeleton with sheet also serves for drainage of roofing water, and is closed on the upper side of solar panels and light boxes of polycarbonate, and on the bottom side boxes of perforated steel sheet. In the ceiling of the canopy is incorporated line LED technical lighting in dilatations between the ceiling panels which further emphasizes the visual identity of the object.

The light effect of the decorative character of the canopy through the light boxes emphasizes the bracket with the gradual reduction of intensity from lower to higher levels of the canopy bracket, and also the backing and construction of green paint on the horizontal panels. The type object of the electric car charging station was used as a platform for integrating different approaches that combine architecture, design and sustainability. The seemingly simple object is designed as a distinctive character in space. In addition to the visually attractive cell Elen leaf integrates sustainable technologies within one of rare examples of the product design of this kind in Croatia. The project of the typical charging station for electric cars is a rare effort to investigate the response, as well as the combination of architecture and design.