

Design For Six Sigma (DFSS) applied to an innovative Electric Scooter

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Abstract

The term electric mobility comprises several means of electrified or semi-electric transport for short or medium range displacements. The essential idea is to satisfy the expanding demand for short urban travel, which features public transportation, taxis, and car-sharing solutions.

Micro-electric mobility is often an ideal solution for moving quickly and efficiently, even if an area is closed and unreachable due to traffic.

The only conflicting viewpoint associated with micro-electric mobility is creating an efficient infrastructure and the challenges faced with consumers' behavior since customers are forced to analyze their best daily option for transportation.

Since the future suggest that transportation around cities will no longer be the same, micro-mobility could be the turning point for a society that frequently seems willing to embrace more alternative environmentally friendly solutions for the environment while being incentivized by the idea of ownership.

LOOP is creating an innovative electric scooter, different from the market's standard ones, both in design and in its functionality. A light and handy product that brings citizens closer to micro-mobility. A sustainable solution that allows you to avoid traffic and reduce consumption.

Keywords

Electric Scooter, Sustainable Mobility, Design Engineering, Industrial Design.

Biography / Biographies

Giorgia Zippo (Relator) is a student of the course Master Degree in “Advanced Product Design”, at Alma Mater Studiorum University of Bologna. Three-year graduated in Industrial Product Design at the Polytechnic of Bari.

Pierpaolo Ruggiero is a three-year graduate student in Industrial Product Design at the Polytechnic of Bari. He contributed in 2018 as a yacht designer to the construction of the glass window for the Neo400 boat of the Ceccarelli shipyard and to the restoration of a wooden boat at the Maremosso association. He is now attending the second and final year of a master's degree in Advanced Product Design at the Alma Mater Studiorum University of Bologna.

Irene Tedesco is a student of the course Master Degree in “Advanced Product Design”, at Alma Mater Studiorum University of Bologna. Three-year graduated in Industrial Product Design.

Leonardo Frizziero is a Senior Assistant Professor of the Department of Industrial Engineering, at Alma Mater Studiorum University of Bologna. He promotes the scientific issues related to the Mechanical Design and Industrial Design Methods (CAD 2D, 3D, Advanced Design, QFD, TRIZ, DFSS, DFD, DFA, ecc.). In 2005, he was recruited by Ferrari Spa, as project manager of new Ferrari cars projects. In 2009 he came back to University, obtained the Ph.D. degree and started collaborating with the Design and Methods Research Group of Industrial Engineering becoming Junior Assistant Professor in February 2013 at DIN of AMS University of Bologna. He teaches and follows researches in the design fields, participating at various competitive regional, national and international research projects. Since 2018 he has been a Senior Assistant Professor. Since 2017 he is qualified Associate Professor of Design and Methods of Industrial Engineering (ING-IND/15). Prior to the role of university professor, he held relevant positions for some industrial companies.