Design of a cable-stayed footbridge adaptable to various urban areas

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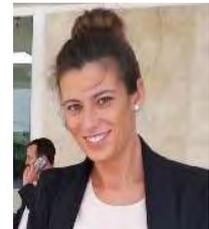
1   Abstract

The present paper relates to the design of a cable-stayed footbridge, composed by ready made elements and with span suitable to various urban and building areas. At present, in order to find a solution to traffic problems, local governments look for many ways to alleviate city's main roads, increasing public transportation and designing dedicated underground pedestrian routes. Although this subways already built are not really used by pedestrians, which prefer wide-open spaces, such as skyways also designed for people with reduced mobility. In this context the described footbridge, with access ramps designed in accordance with accessibility standards, represents not only a good solution for cycle and pedestrian mobility problems, but it is also easy to transport and to be installed, due to its modular elements. The access ramps are suspended to pilons with inclination depending by the required bridge lengths and they can be assembled in different configurations in order to be well integrated also in limited space areas. Finally a particular focus is dedicated to cables, with dismountable end terminations designed to reduce transportation space and costs

Keywords: footbridge, accessibility, modular elements, cables stays, balance, various arrangements, dismountable socket.