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COMPUTER TECHNOLOGIES AS SUPPORT OF DESIGNING GEOMETRY STRUCTURES OF SUSPENSION AND CABLE-STAYED BRIDGES

Keywords: *Architectural Form, Geometrical Structure, Visualizations*

Due to significant number of road investments in the world, new engineering objects are built, including bridges and some of them are with string construction. They constitute important element of environment and should be the subject of research aiming at determination of rules of their architectural designing.

The paper discusses motives and inspirations behind the search for modern architectural forms of suspended and cable-stayed bridges. Novel constructions and materials as well as new functional tasks form the main motivation of such actions.

It is the domain of geometry as a source of structural forms which has been indicated as inspiring and facilitating the discovery of shapes of those buildings. Together with the presentation of design examples and visualization, values of bridges composition of cable stayed type will be presented which are attributed to force expression and shapes dynamics and these in turn decide on artistic character of architecture

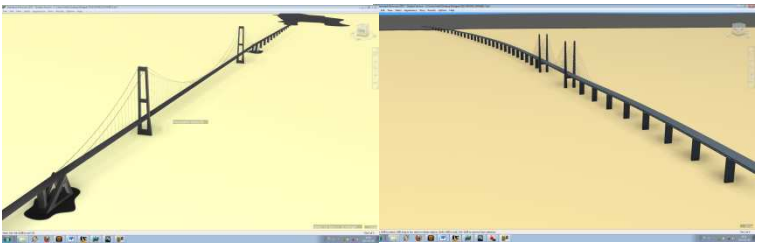

Fig. 1, 2. Visualization of Great Belt East Bridge and Oresund Bridge

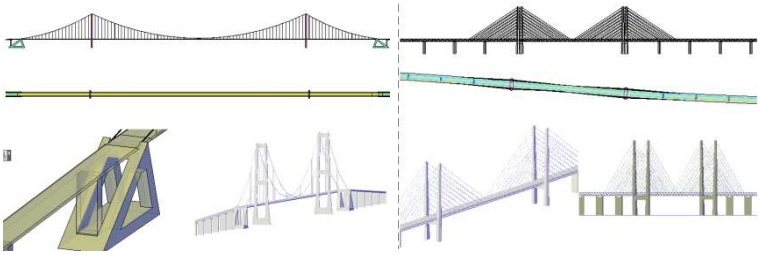

Fig. 3,4. 2D-graphics of Great Belt East and Oresund Bridges in the AutoCAD program.

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