عنوان مقاله:

The role of Rapid Prototyping in kinetic structures

محل انتشار:

کنگره بین المللی نوآوری در مهندسی و توسعه تکنولوژی (سال: 1395)

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خلاصه مقاله:

Designing kinetic architecture is a challenge and not very much bolstered by accessible computer helped structural configuration devices since they need plan support for moving components, electronic parts and programming segments. The aim of this research is finding the role of rapid prototyping in kinetic structures, including its mechanical parts, electronic control units, and software modules. For kinetic structures being unpredictable by nature, it is vital to make virtual and also physical models that investigate the practical parts of the outline objective. For virtual models a mix of existing instruments is utilized, for example, Rhino + Grasshopper, Processing, Blender + Python scripting, Virtools or comparable situations. For electronic prototyping, Arduino is the most well-known environment. A number of experts have proposed rapid prototyping classification schemes that are based on the physics of the processes. For the purposes of this chapter, a classification scheme is presented that is based on the operation of the machines themselves.In kinetic structures, Parts that are included the physical environment must be fittingly spoken to in the virtual environment. This could be accomplished by 3D checking or 3D demonstrating. Moreover, these models must be set up for an ongoing domain as for geometry and utilitarian viewpoints.

کلمات کلیدی:

Kinetic structures, Rapid Prototyping, Modeling, Mechanism, Design