عنوان مقاله:

New Possibilities in Dynamical and Strength Analyses of Composite Structures

محل انتشار:

دومین کنفرانس بین المللی معماری و سازه (سال: 1390)

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خلاصه مقاله:

The paper, first of all turn attention on the own theory for single straight composite bars, on essential formulae for strength calculation and on static and dynamic analyses including problems of instability. In all cases can be taken into account bar interaction with surrounding media. Special attention is turned on behavior of structures with composite cross-sections and under dynamic loads. There, solutions are based on original, elaborated by author, reduced geometrical characteristics for bars composed of some materials and on 3D-Time Space Method. Moreover, for instability problems is proposed uniform criterion, elaborated and verified by author, too. The last two approaches can be applied to any structure, including built of many bars with any cross- sections – full or thin-walled, homogenous or composite etc. Finally, are shown own proposals for strength analysis of discussed bars. Some results of more characteristic task are shown, too. There, are pointed some new, unconventional possibilities of the theory, not existing or much more difficult to obtain in other traditional solutions.

کلمات کلیدی:

space bar structures, statics, dynamic,dynamical-stability, composite structures, strength,buildings, bridges

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