A MULTI-CRITERIA DESIGN METHOD FOR SANDWICH CONSTRUCTIONS WITH PERIODIC CELLULAR CORES

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Abstract: The purpose of this paper is to present a multi-criteria design method that may improve the present way of dealing with the multidisciplinary design optimization of sandwich constructions with periodic cellular cores. The constitutive parts of a sandwich assembly are discussed individually, showing the functional role and the properties of interest for each of them. A Fuzzy control system may be used to combine these individual properties in order to determine and optimize the overall properties of a sandwich assembly.

Key words: sandwich structure, periodic cellular cores, multidisciplinary design.

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