Toward an Optimal Design of Propeller Using Neural Networks and Evolutionary Computation

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Abstract: In this paper, a new design methodology is proposed as a teaching tool. A conceptual model generates a description of design variables where a model is built using experimental data. This model is validated and can be used to generate preliminary and optimal designs. As a case of application, propellers are designed using different materials, forms and dimensions. Results indicate a different alternative for teaching in generating high performance designs.

Keywords: Conceptual Design, Propeller, Neural Networks Modeling, Optimization Using Evolutionary Computation