Optimization design for golf club heads

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Abstract

The objective of the present study is to establish an optimization design technique for golf club heads. The optimization process related to the design aims at shot distance and maximum sweet area. The design variables included 29 club head shape and associated physical parameters, and 10 constraints in respect of weight and volume of the golf club head. Optimization of multi-objectives design was performed employing a compromise planning methodology. During optimization, the secondary development module of a UG/CAD system using DFA language is employed to integrate optimization principles into a CAD system; hence, an optimization automatic modeling system for designing golf clubs is established. The system demonstrates its efficient and speedy completion of an optimization design for a golf club.

Keyword：Key Words: golf club, optimization, CAD