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## Optimization of Small-Scale UAV Propeller Using a Genetic Algorithm

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### Abstract

A propeller works like a rotating wing, generating lift in the direction of revolution. Many earlier propeller optimization algorithms have been devised; however, they often identify the best thrust coefficient at a constant power coefficient and vice versa. This study will find the optimal value of the thrust coefficient and the power coefficient together to find the optimum value of the thrust and the lowest value of the power at the same time. All hypotheses were based on a Simple Blade Element Theory Blade.

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