

This book is based on the concept of modification on the straight-bladed vertical axis wind turbine and its effects on the performance of the turbine. Aerofoil profile modifications being investigated include semicircular dimple, Gurney flap, and the combination of dimple and Gurney flap. This book is focused on the values of coefficient of lift, coefficient of drag, aerofoil Velocity and aerofoil force as these are the vital parameters, which are used as the parameters to measure for power generated by the turbine by Energy model, Spalart Allmaras models which are used to simulate the mean flow characteristics for turbulent flow conditions in computational fluid dynamics. All the design modifications and simulation analyses have been done with the help of computational fluid dynamics by using ANSYS Fluent.



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