

Vardar A, Eker B (2006) Principle of Rotor Design for Horizontal Axis Wind Turbines. Journal of Applied Sciences, 6(7): 1527-1533.

Abstract

To increase the efficiency of wind turbines, rotor planning principles are very important for wind turbines with horizontal axis. It is not possible to expect the maximum efficiency from a wind turbine that is installed without doing the optimization processes. At this point, rotor blades aerodynamic features are very important. It is necessary to put forward the power value that can be obtained from rotor blades. It is possible to conduct power tests indoors or under natural conditions. But in both methods, real rotor blades have to be produced. And this means cost. For this reason, first miniature blades can be produced and the tests can be conducted on these miniature rotor blades. This, along with theoretic studies, will help us to have a good opinion.