

Jordan University of Science and Technology

Aerodynamic loads on a stationary Savonius rotor

Authors: Aldoss, T.K., Kotb, M.,A.

Abstract: The discrete vortex method was used to provide detailed information on the flowfield and starting torque on a stationary Savonius rotor. The rotor average starting torque depends on its setting relative to the oncoming wind. The rotor position normal to the wind was selected to examine the local flow properties on and around its buckets. The results obtained were used to explain the relatively low torque developed by the rotor at that position.