عنوان مقاله:

Parametric study of a novel oscillatory wind turbine

نویسندگان:

Radmarz Hosseini - *Department of Mechanical Engineering, College of Engineering, Fasa University, ۷۴۶۱۷-۸۱۱۸۹ Fasa, Iran*

Reza Roohi - *Department of Mechanical Engineering, College of Engineering, Fasa University, ۷۴۶۱۷-۸۱۱۸۹ Fasa, Iran*

Goodarz Ahmadi - *Department of Mechanical & Aeronautical Engineering, Clarkson University, Potsdam, NY ۱۳۶۹۹-۵۷۲۵, USA*

خلاصه مقاله:

Clean energy harvesting and usage has gained considerable attention in the last few decades. While the horizontal axis wind turbines have been used extensively, they have certain defects and functional limitations. In the present paper, a novel oscillatory wind turbine is proposed. The conceptual design of the new turbine together with its configuration is explained. Dynamical equations of the turbine are derived and numerical analysis of these equations is performed using a developed computer code. The simulated behavior of the oscillatory turbine agrees well with the general behavior of the wind turbines, and the values for the power coefficient are acceptable for a micro-sized wind turbine.

کلمات کلیدی:

Oscillatory Wind Turbine, Dynamical Governing Equations, Clean Energy Harvesting, parametric study

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