

Abstract

The wind energy generation has achieved great developments and advances in past decades, but it is still facing critical challenges since the subsidy is gradually removed and the carbon neutral is put on the agenda in many countries. The high torque density generator is the key to promote the economic competitiveness of wind energy against other fossil energies, particularly for the long-distance off-shore application scenarios. To this end, the modeling and optimizing of wind power generator would be emphasized, and some new technologies in multidisciplinary field will be discussed.

This keynote will explore the state-of-the art and the future roadmaps of high torque density PM generator for wind power applications, by introducing and discussing typical design cases for the wind-turbine products.