

Active and reactive power injection into a distorted grid voltage by The combination of
DFIG wind turbine and other distributed generation sources

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Abstract:

This projects presents an analysis and control design of a doubly-fed induction generator (DFIG)-based wind generation system and other distributed generation. other distributed generation like fuel cell and PV cells are connected to the dc link of DFIG and operating under unbalanced and distorted network conditions. A DFIG system model in the positive and negative synchronous reference frames is presented. in this case we have Variations of stator active and reactive powers and torque. the control strategy is to minimize the oscillations in electromagnetic torque.