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Contribution to Improving the DFIG Control Using a Multi-Level Inverter

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Abstract : Doubly Fed Induction Generator (DFIG) is one of the most reliable wind generator. Major problem in wind power generation is to generate Sinusoidal signal with very low THD on variable speed caused by inverter two levels used. This paper presents a multi-level inverter whose objective is to reduce the THD and the dimensions of the output filter. This work proposes a three-level NPC-type inverter, the results simulation are presented demonstrating the efficiency of the proposed inverter.

Keywords : DFIG, multilevel inverter, NPC inverter, THD, induction machine
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