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An Approach to Wind Turbine Modeling for Increasing Its Efficiency

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Abstract : In this paper, a simple method of achieving maximum power by mechanical energy transmission device (METD) with integration to induction generator is proposed. METD functioning is explained and dynamic response of system to step input is plotted. Induction generator is being operated at self-excited mode with excitation capacitor at stator. Voltage and current are observed when linked to METD.

 $\textbf{Keywords:} \ \text{mechanical energy transmitting device} (\text{METD}), \ \text{self-excited induction generator, wind turbine, hydraulic actuators}$

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