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Vertical Axis Wind Turbine Induction Generator Subsystem[1]
AMANDA PRESCOTT, Univ of Mass - Dartmouth — This novel approach to an atypical sail-driven wind turbine is primarily distinguishable by the vertical axis structure as well as the induction generator. The generator subsystem for this vertical axis wind turbine is being designed and constructed to maximize the power output through variable wind speeds at ground-level. The goal is to produce 2.3kW of power through a 3-phase AC system, making use of Neodymium magnets and specially designed coils to fit the production needs. The generator is being designed with modular properties to fit power needs of the consumer. The design is currently in progress and undergoing significant testing and reconfiguration on a full-scale prototype structure. Preliminary designs and results from testing will be shown.

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