

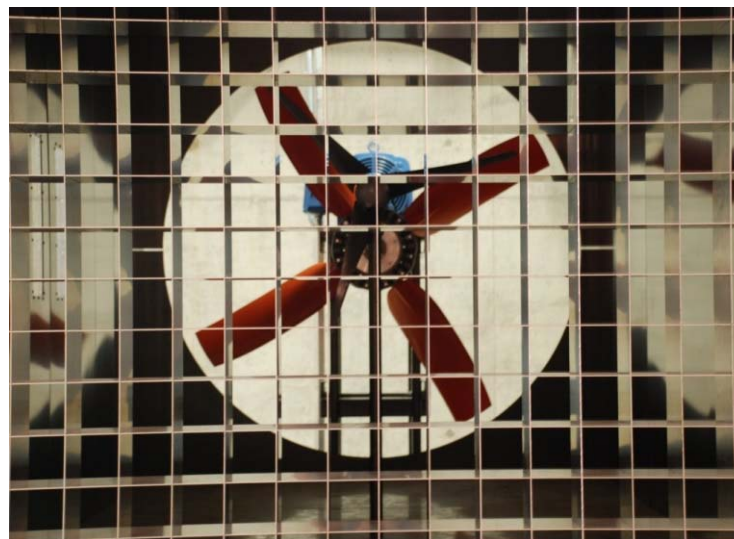


Electrical subgroup lead

Wei Qiao, Ph.D.

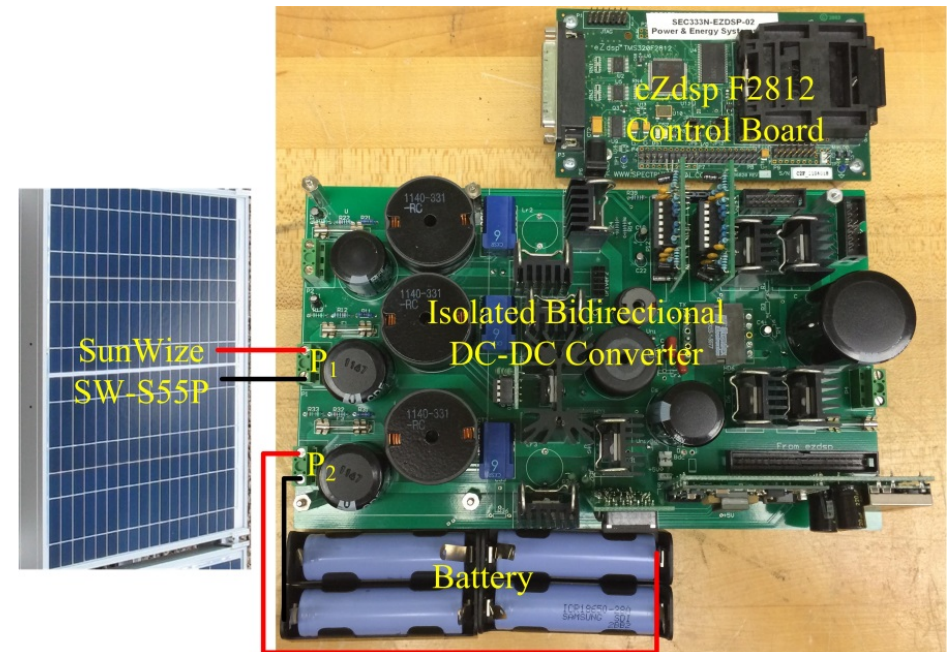
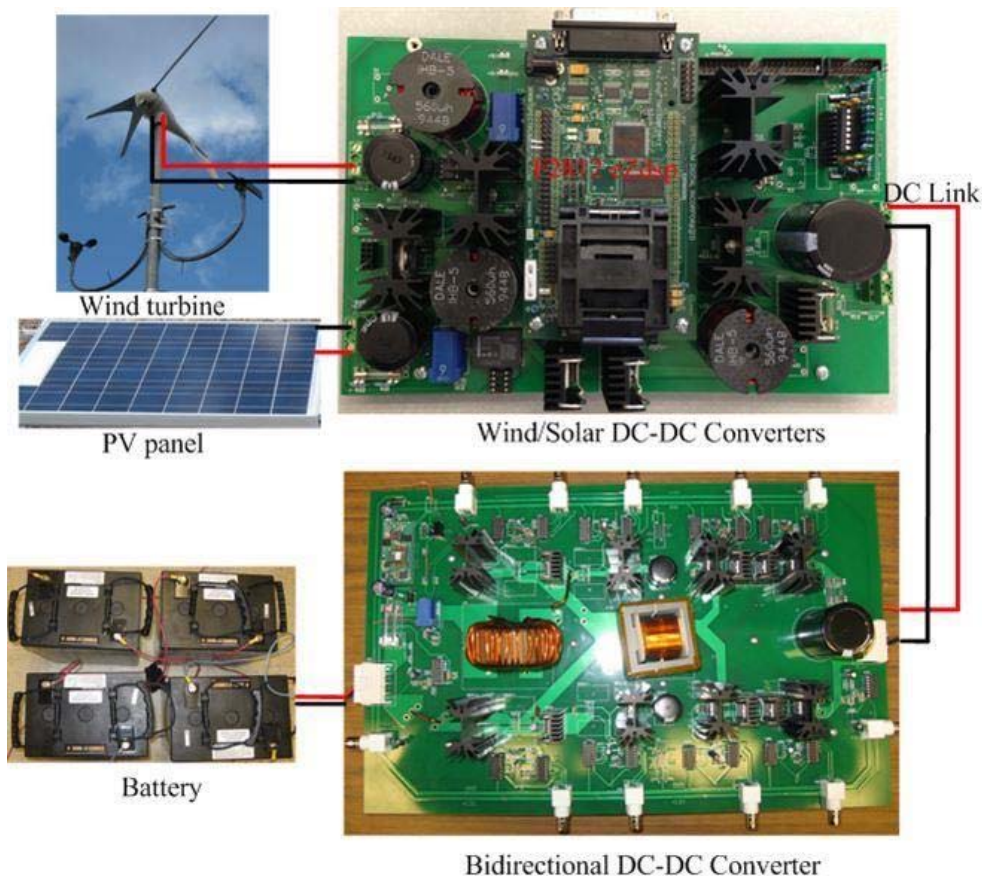
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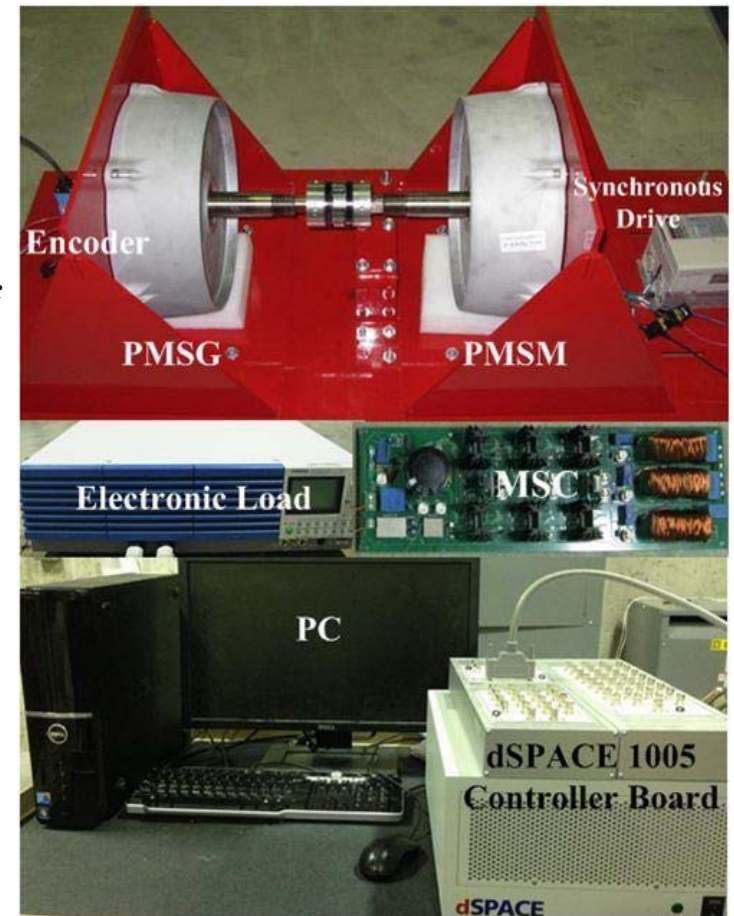
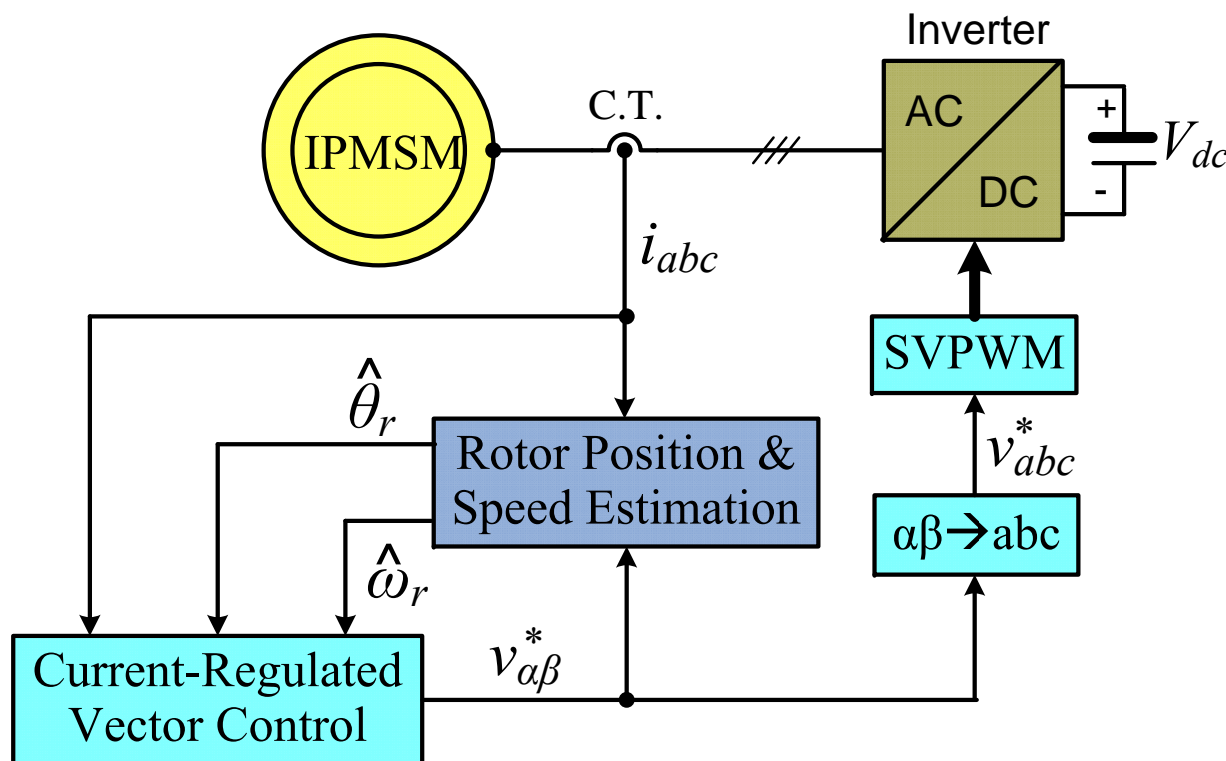
Distributed Wind Activities

- New integrated power converters for distributed wind and solar energy systems and battery storage



Distributed Wind Activities

- Advanced control for wind turbine generators
 - Mechanical sensorless control
 - Direct torque control
 - Grid fault ride through

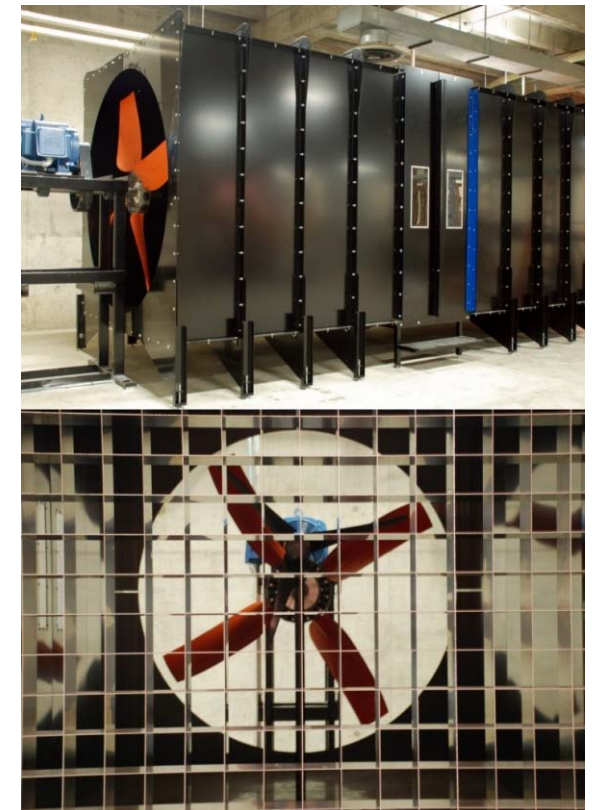
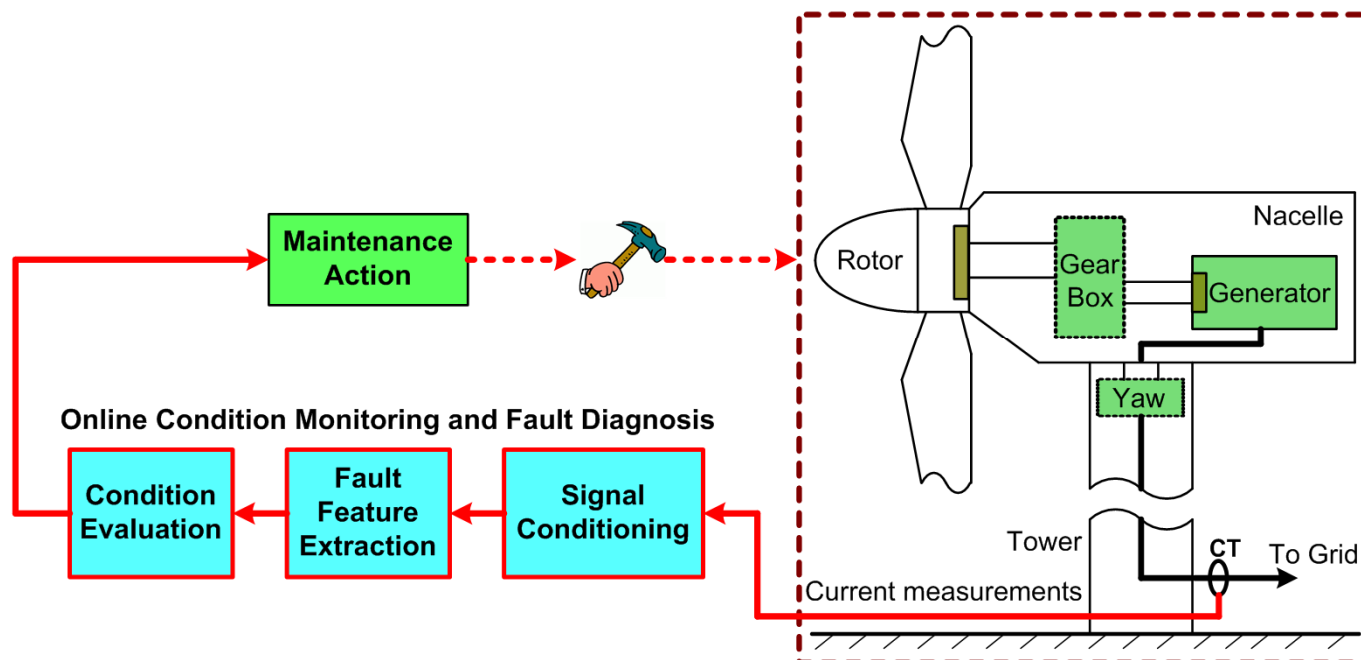


Distributed Wind Activities

- Online nonintrusive prognostic health monitoring for wind turbines
 - Fault diagnosis
 - Fault prognosis
 - Remaining useful life prediction



U.S. DEPARTMENT OF
ENERGY



Distributed Wind Activities

- Distributed wind/solar hybrid generation-based smart microgrid

