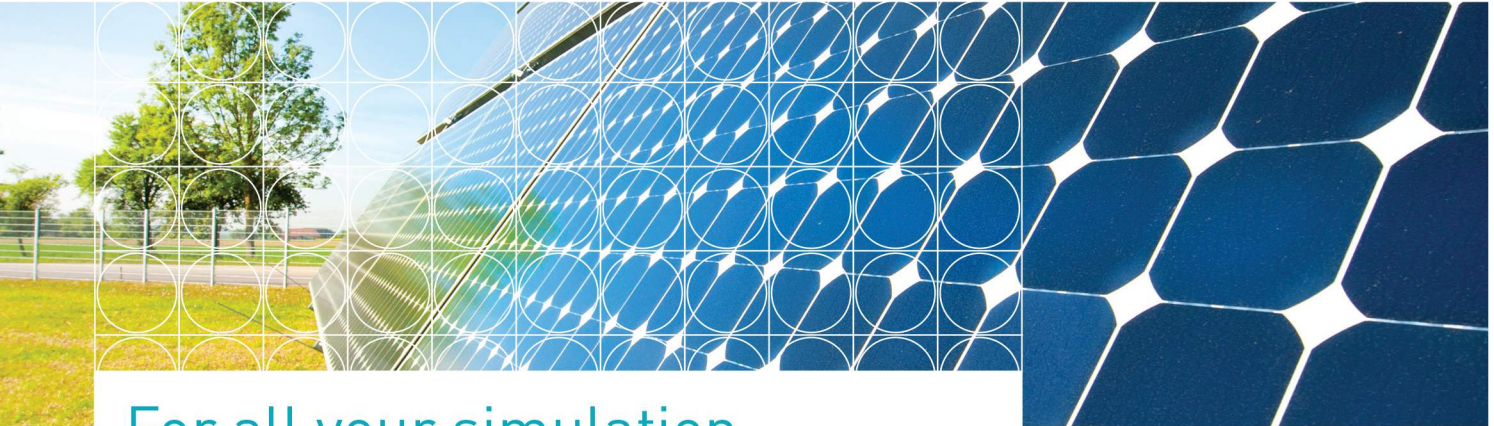


RENEWABLE ENERGY MODULE **PSIM**



For all your simulation needs for renewable energy applications

The Renewable Energy Module provides the necessary models and function blocks for renewable energy applications. It includes solar module models, sample MPPT (Maximum Power Point Tracking) blocks, and tools that allow users to extract solar module parameters directly from a manufacturer datasheet. This makes it very easy to model a real-world photovoltaic system with little effort.

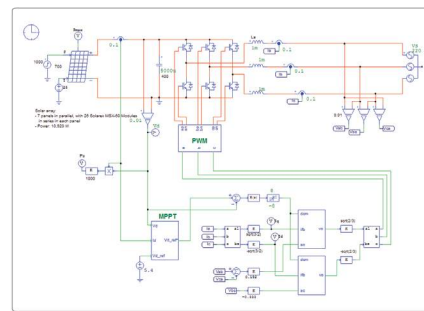
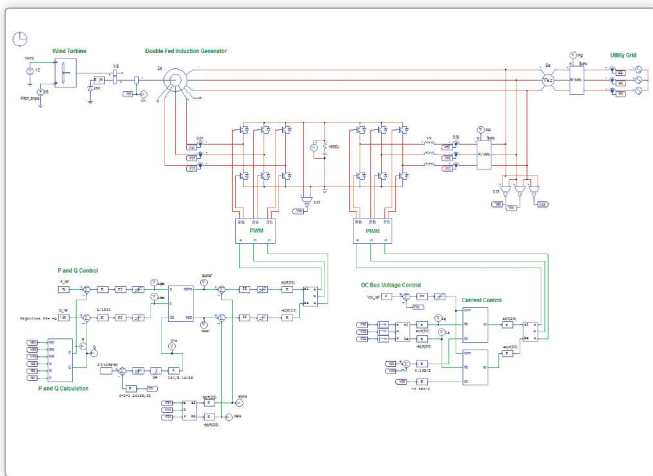
In addition, it provides the wind turbine model, and together with the Motor Drive Module, the capability to simulate wind

power systems. Three complete sample wind power systems, based on double-fed induction generator, permanent-magnet synchronous generator, and squirrel-cage induction generator, are provided. These examples provide an excellent starting point to build and design your own wind power systems.

Furthermore, battery models are provided, allowing users to simulate battery charging and discharging process and energy storage systems.

FEATURES

- ♦ Lithium-ion battery model
- ♦ Solar module with temperature and light intensity effect
- ♦ Parameter extraction directly from solar module datasheet
- ♦ MPPT blocks
- ♦ Wind turbine model and complete wind power system examples



Above: **3-phase grid-connected PV inverter** with MPPT.

Left: **Wind power system** with double-fed induction generator.