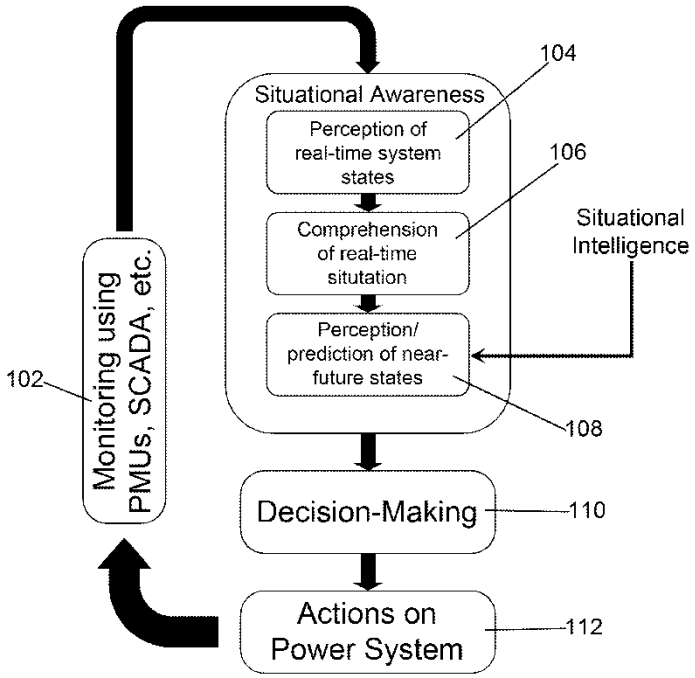
Situational Awareness for Electric Power Systems

Description:

Situational awareness is critical and important to control room operators for secure and efficient smart grid/power system operation. Continuous data sense-making is critical for ensuring the stability of the power system.

This Clemson technology relates to an electrical grid control system and, more particularly, to an improved system and method for grid control using an n-dimensional cellular computational network to provide a situational awareness (SA) framework. This electrical grid simulation system and method combines components to better mimic and control expected and unexpected parameters in an electrical grid.

The invention provides grid simulation in a manner to allow improved testing of variable power generators, such as wind turbines, and their operation once interconnected with a medium-voltage grid in multiple countries.



Applications:

- Power utilities
- Grid system operators

Benefits:

- Modular and scalable system
- Adaptable to faster conmputing platforms

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