Solar Inverter CSOGI

This scenario was designed to assess and compare the filtering performance of the conventional CSOGI structure, which relies on a statically designed gain parameter, against the proposed adaptive ...

This work presents an improved cascaded second-order generalized integrator (I-CSOGI) controlled photovoltaic system (PVS), which functions as an islanded system during grid interruption without ...

An adaptive synchronization method is introduced in this work, through which the CSOGI filtering gain is adaptively controlled in real time by an artificial neural network (ANN).

This paper evaluates the performance of various Phase-Locked Loops (PLL) based control techniques in the context of renewable energy specifically Solar PV integration and power grid...

Results revealed that the proposed method has been effectively enhancing the power quality by complying with the IEEE 519 standards (THD grid side 10.96% & load end 2.65%). Hence, the ...

To overcome these limitations, this research paper proposes an ADALINE-SiOGI-FLL (Sixth-Order Generalized Integrator Frequency Locked Loop) controller, which merges the adaptive ...

This paper presents a novel hard-thresholding fast iterative filtering (HTFIF) control for a grid-tied solar photovoltaic array (SPVA) system. The effectiveness of this control is tested during grid-connected ...

The pro-posed technique combines the features of both SOGI and EPLL with an aim to improve the performance of Solar PV integration with single phase grid. This research contributes to access the ...

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