Hardware-In-the-Loop 시스템을 이용한 태양광 시스템 연구

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PV System using HIL System

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Abstract : The existing DSP for utility interactive photovoltaic generation system control, generally uses floating point process type. Because it is easy to use for number crunching, however, it is too late and too expensive. Fixed point process DSP, TMS320F2812, has high control speed and is rather inexpensive. A very complicated real system can be simulated using hardware-in-the-loop (HIL) system in a virtual environment. Therefore, HIL system can speed up research and development process with a little effort. Also, current DSP for utility interactive photovoltaic generation system adopts floating point process type, which is easy to use for number crunching. However, fixed point process DSP, TMS320F2812, has high control speed and is rather inexpensive. This paper presents more efficient method for MPPT control using TMS320F2812 along with HIL system.

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