Proyecto de Tesis de Maestría.

Título: Modelado y control de un microinversor monofásico en sistemas interconectados a la red eléctrica

Un microinversor se conecta de forma directa en un módulo fotovoltaico para inyectar la energía disponible a la red eléctrica, de esta forma se evita la pérdida de potencia en sistemas fotovoltaicos basados en la conexión en serie o paralelo de módulos fotovoltaicos, principalmente debido al sombreado [1]. Las características principales del microinversor son: seguimiento del punto de máxima potencia [7], minimización del rizo de voltaje del bus de corriente directa [9], estrategia de modulación y control [12], aislamiento por transformador [3]-[4], corrientes de fuga en microinversores sin transformador [6] y protección anti-isla [13]. En este trabajo se busca establecer el estado actual en el diseño e implementación de los circuitos microinversores que incluya las características principales con énfasis en el modelado, control e implementación.

Productor académicos comprometidos: 1 artículo en conferencia internacional arbitrada antes del 16 de noviembre de 2019.

Estancia del estudiante: En institución nacional durante 1 mes (cenidet, itCelaya).

Conferencia del estudiante: ROPEC.

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