

A dc-dc Converter based Electrochemical Impedance Spectroscopy System for Stack-Level Fuel Cell Diagnostics

Status: Available

Group Members:

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Project Description

Electrochemical impedance spectroscopy (EIS) is a promising diagnostics of fuel cell in real-time or offline. When applying AC perturbations to a high-power stack, conventionally used linear power amplifiers are expensive of producing large enough magnitudes. This project aims to develop a stand-alone converter based system for stack-level fuel cell diagnostics. From the energy perspective, the developed converter serves as a reactive energy generator. The project includes design and development of the converter.