Dynamic Imaging of Solar Cell Optoelectronic Quality using a Near-Infrared Camera.

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We have developed a non-destructive imaging technique (solar cell lock-in carrierography) which monitors the optoelectronic quality of industrial silicon-based photovoltaic solar cells and aims to correlate the images with the electrical output and overall performance efficiency of the solar cell. A MEng student will be required to work with the research team in generating and analyzing carrierographic images in order to build the statistics of these optical-electrical correlations and relate images to quantitative measurements of the parameters responsible for the solar cell efficiency.