**Development of portable electroluminescence system for individual PV panels**

Scope:

* EL system that can be used to identify inactive and/or defective cells in a solar panel
* Is a system that utilises electroluminescence where current is run through a panel such that light emission occurs and is captured by a camera
* System is portable as opposed to standard EL systems which have dedicated rooms to perform imaging
* System is expected to only image 1 solar panel at a time
* EL system captures images of panels in an alternating state of bright (when current is sent to panel) and dark (when no current is sent to panel).
* System minus dark images from bright images to remove background light (measurement noise)
* System can run specified current to panel that meets power rating
* Current source, camera, and processing is performed by a single computer (laptop or Raspberry Pi)
* If possible, user interface will be implemented that can take all relevant inputs and produce an output on a touchscreen system