Postdoctoral Scholar Position
In Photovoltaic Degradation and Data Science

A Postdoctoral Scholar position for a materials scientist/engineer is available in the SDLE Research Center, Case School of Engineering under the direction of Prof. Roger H. French. The research focuses on using a data analytics approach to understanding and predicting photovoltaic module material degradation, optimizing PV performance and accelerating adoption of new technology, such as PERC solar cells. DOE SETO funded projects include PERC cell degradation, moving PV lifetimes to 50 years, and PV module backsheet degradation.

The Postdoctoral Scholar will engage in research to gain understanding and prediction of degradation mechanisms in PERC solar cells from laboratory-based experimentation and use typical semiconductor characterization tools to monitor performance and identify real-world degradation mechanisms. Data are acquired over time and a data science methodology employed to model the behavior in a quantitative manner.

The Postdoctoral Scholar will be responsible for original and collaborative research, related data analysis and publications, as well as some student supervision and coordination of studies. This position holds excellent career development opportunities. Preference will be given to individuals with experience in photovoltaic materials and processes and a demonstrated ability to lead a project, analyze data, and write manuscripts. The applicant should hold a Ph.D. degree in materials science, electrical engineering, physics, or a related field. Analytic and computing skills are required including the ability to code. Experience with Linux is a plus. Strong oral and written communication skills and ability to work independently and collaboratively are essential.

Applicants should send a cover letter including a brief description of research experience and interests, a curriculum vitae, and contact information for at least three references by email to:

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