Post-Doctoral Research Associate Position In
Data Science and Statistical Analytics
of PV Material Degradation

A Post-Doctoral Research Associate/Senior Research Associate position for a statistician 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, opening up the risk-reducing or risk-averse market of PV module lifetimes and accelerating adoption of new technology adoption. Combining point in time and time series data on real-world PV modules in a wide variety of climatic zones with more detailed point in time data on a smaller set of real-world retrieved modules is necessary. This real-world data with be cross-correlated with similar PV materials under accelerated exposure in order to understand the degradation mechanisms and the roles of specific stressors on degradation and to predict lifetime in various climatic zones.

The Research Associate will be responsible for original and collaborative research, related data analysis, software development 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 real-world data analytics and a demonstrated ability to lead a project, collaborate with domain scientists, analyze data, and write manuscripts.

The applicant should hold a Ph.D. degree in Statistics, Biostatistics, or a related field. Excellent analytic and computing skills, with at least two programming languages, one from each of two of the following three groups: R/Splus/SAS, C/Fortran/JAVA/Python/Hadoop, Matlab/Mathematica, are required. Experience with Linux is a plus. Strong oral and written communication skills and ability to work independently and collaboratively are essential. The applicant should be familiar with the linear modeling, fixed effects and mixed/random effects modeling, logistic regression, predictive modeling, and cross-correlation of data sets. The research associate will lead and mentor students in R code development and data analysis of large and diverse data sets in a Hadoop/Hbase distributed computing environment, including time series and point in time data.

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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