Postdoctoral Research Associate in Diagnostics/Prognostics

Applications are invited for one Postdoctoral Research Associate position in the Department of Mechanical Engineering at Iowa State University. The research objectives of this position are to (1) develop machine learning algorithms to online detect faults and predict failures of rotating machinery (e.g., motors, pumps, and rotor systems) and lithium-ion rechargeable batteries and (2) assist in validating the data analytics on an Industrial Internet of Things (IIoT) hardware and software platform. The duration of the position is expected to be one year and may be renewable based on performance and availability of funding. The salary will be commensurate with the prior research experience of the applicant.

Qualifications:
Candidates should have a recent Ph.D. in Mechanical Engineering, Electrical Engineering, or a related discipline. Applicants with experience in (1) fault diagnostics and failure prognostics, (2) traditional machine learning and deep learning, and/or (3) experimental/computational studies of lithium-ion batteries are highly encouraged to apply. Particularly, prior research experience in one or more of the following areas are desired:

- Algorithm development for traditional machine learning and deep learning
- Algorithm development for fault diagnostics and failure prognostics
- Vibration analysis for diagnostics/prognostics of rotating machinery
- Computational modeling of lithium-ion cell designs and lifetime performance

Responsibilities:
The postdoctoral associate will attend the weekly individual and group meetings, mentor at least two Ph.D. students in the group, and facilitate close collaborations with a company specialized in IIoT and predictive maintenance. The postdoctoral associate will also publish the findings of his/her research in premier journals, present his/her research in high-impact conferences, and participate in proposal writing. Only individuals who have a strong desire to pursue an academic career are encouraged to apply.

Applicant Information:
The position is available immediately. Applications will be processed as they arrive until the position is closed. Interested applicants should submit by email (1) a cover letter that summarizes prior research experience and (2) a CV to Dr. Chao Hu, chaohu@iastate.edu.

Iowa State University is an Equal Opportunity/Affirmative Action employer. All qualified applicants will receive consideration for employment without regard to race, color, age, religion, sex, sexual orientation, gender identity, genetic information, national origin, marital status, disability, or protected veteran status and will not be discriminated against. Inquiries can be directed to the Office of Equal Opportunity, 3410 Beardshear Hall, 515 Morrill Road, 515-294-7612, email eooffice@iastate.edu.