

# Postdoctoral Researcher

at Texas Tech University, USA

The Product Design and Development Lab of the Department of Mechanical Engineering at Texas Tech University is seeking candidates for a Postdoctoral Researcher position. A recent (within the last three years) Ph.D. in mechanical engineering or a related field is required. Applicants should possess excellent written and oral communication skills and the ability to mentor and work with a diverse graduate and undergraduate students.

A candidate who has established research experience of the following areas is preferred:

- ✓ Experience with laboratory/field testing and/or computer simulation of drivetrain system
- ✓ Experience with acquiring, reducing and analyzing experimental data sets using data acquisition softwares like LabVIEW or MATLAB
- ✓ Experience with Finite Element and Multibody Modeling tools such as ANSYS, ADAMS
- ✓ Experience with solid body modeling tools such as ProE, Inventor, SolidWorks
- ✓ Experience with Probabilistic Analysis Tools such as NESSUS
- ✓ Knowledge of Condition Monitoring and/or Prognostics and Health Monitoring (PHM) of Mechanical Systems
- ✓ Knowledge of gearbox, bearing design, and generator standards
- ✓ Demonstrated ability to organize and clearly present complex concepts and results
- ✓ Strong analytical, research, and communication skills.
- ✓ Ability to initiate independent projects and work across disciplines.

In addition to mentoring graduate and undergraduate students, the candidate will be responsible for:

- ✓ conducting comparisons of different analytical results,
- ✓ validating novel approaches,
- ✓ computing both component and system-level reliability of wind turbine drivetrain designs and
- ✓ estimating Remaining Useful Life (RUL) of wind turbine drivetrain components using existing and novel probabilistic and non-probabilistic approaches.

Candidates must show strong potential to produce and publish peer-reviewed technical papers of research results.

The complete electronic application package should consist of:

1. A detailed CV,
2. A letter of interest that includes research statement, and
3. Three recommendation letters.

Application package should be emailed to Dr. Stephen Ekworo-Osire by e-mail at [stephen.ekworo-osire@ttu.edu](mailto:stephen.ekworo-osire@ttu.edu). The position is anticipated to begin immediately. Review of applications will begin immediately, but new applications will be accepted until the position is filled.

Presently, the Department of Mechanical Engineering has 31 faculty members and 1,200 undergraduate and 120 graduate students. Texas Tech University, with an enrollment of about 35,000 students, is comprised of 12 academic colleges and schools and is a part of the state-supported Texas Tech University System. The university shares its campus with the Texas Tech University Health Sciences Center.

Texas Tech University is located in Lubbock, Texas, a community with a population of 230,000. The cost of living in Lubbock has historically been low compared to national norms. The city hosts frequent musical, theatrical, and sporting events. Many other recreational and cultural opportunities are easily accessible by car.

**Texas Tech University is an Affirmative Action/Equal Opportunity Employer. We strongly encourage applications from women, minorities, persons with disabilities, and veterans, and we consider the needs of dual-career couples.**