



TEXAS TECH UNIVERSITY  
**National Wind Institute™**



**Wednesday, April 19th**

3:30 p.m.

Experimental Sciences Building 120

**Sanjay Arwade, Ph.D.**

Professor, Civil Engineering

University of Massachusetts, Amherst

***Lecture Title: Extreme Events and the Reliability  
of Offshore Wind Energy Structures***

**ABSTRACT:**

The offshore wind energy industry in the U.S. is poised for dramatic growth with 15 wind energy areas already designated by BOEM along the Atlantic coast, and this growth will present the challenge and opportunity of engineering and constructing, from the seafloor up, an entirely new civil infrastructure system. Through advanced analysis and performance evaluation, it should be possible to design this infrastructure to meet target performance and reliability metrics and to serve the needs of society. Key topics in this talk include modeling of offshore hurricane hazard, performance assessment of fixed bottom support structures subject to extreme loading, soil-structure interaction, reliability analysis, and novel concepts for floating platform mooring systems.

**BIOGRAPHY:**

Sanjay R. Arwade is a Professor of Civil Engineering at the University of Massachusetts, Amherst. He studied structural engineering and mechanics at Princeton and Cornell, and works primarily in areas of probabilistic mechanics, offshore engineering, and reliability. His research has been funded by the US National Science Foundation, BOEM, the Massachusetts Clean Energy Center, and industry.

**RECEPTION TO FOLLOW**