

IEEE

ERIE SECTION

PRESENTATION – GE TRANSPORTATION GEARING CENTER OF EXCELLENCE

CHALLENGES OF THE DESIGN, MANUFACTURING AND VALIDATION OF LARGE GEARBOXES USED IN WIND TURBINE APPLICATIONS

October 20th 2009

Greg Baumgratz
Program Chairman, Erie Section IEEE

Dear IEEE Member,

The Erie Section of IEEE would like to invite you to attend a presentation titled “Challenges of the Design, Manufacturing and Validation of Large Gearboxes used in Wind Turbine Applications” at Gannon University on Tuesday October 20th, 11:00 am. Following are details of the presentation:

Gannon University SEECS (Scholars of Excellence in Engineering and Computer Science) Presentation

DATE:

Tuesday, October 20th @ 11AM

LOCATION:

Gannon University, Zurn Science Center, Room 101, Enter from W 7th Street

PRESENTER:

Michael Sirak, PE – Manager, GE Transportation Gearing Center of Excellence

TITLE:

Challenges of the Design, Manufacturing and Validation of Large Gearboxes used in Wind Turbine Applications

ABSTRACT:

The current trend of the wind turbine industry is to go larger multi-megawatt turbines, typically from 2.0 Mw to 5.0 Mw. As these turbines grow larger there are significant challenges presented to the drive train between the energy harvesting components and the electrical generator. These challenges involve reducing the total weight of the components, reducing first time cost (materials and gearbox configuration), infrastructure (shipping), maintenance and up-tower repair, and reliability over a 20-year life cycle. This presentation will cover these challenges in more detail and offer some insight to possible solutions that can manage these issues. Other challenges, such as, long term process capability (quality) of the major gearbox components and their effect on drive train performance will also be discussed.

This session should be an informative presentation regarding opportunities and challenges faced in a growing technical area. Please join us for the presentation if you can. No RSVP is necessary.