

Moore, Marsha M.

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**From:** England, Kristin F <kengland@utk.edu>  
**Sent:** Tuesday, January 24, 2012 11:20 AM  
**Subject:** U. of Tennessee NE Dept. Colloquium and Webcast

**Topic:** Application of Monitoring and Prognostics to Small Modular Reactors

**Speaker:** J. Wesley Hines, PhD  
Postelle Professor and Department Head  
Nuclear Engineering Department  
The University of Tennessee  
Knoxville, TN

**When:** Wednesday, January 25, 2012  
1:30 – 2:30 p.m. EST

**Where:** 308 Pasqua Engineering Building

**Webcast:** <http://www.engr.utk.edu/nuclear/colloquia>

Viewers of the live webcast may submit questions and/or comments to the speaker either before or during the live webcast via an email message to [utne@utk.edu](mailto:utne@utk.edu). Please include your name and affiliation in your email message. Viewers who miss the live webcast can view the archived webcast, which is usually posted within 24 hours, at <http://www.engr.utk.edu/nuclear/colloquia/Archive/>. Viewers may also receive the speaker's slides in PDF format via email request to Kristin England ([kengland@utk.edu](mailto:kengland@utk.edu)) **after** the live webcast.

**Abstract:**

Prognostics is one component of a full health monitoring system, which generally includes plant condition monitoring, fault detect, fault diagnostics, and estimation of remaining useful life. Empirical methods for prognostics have been widely studied, and the efficacy of these models is well accepted. However, these methods typically require large amounts of run-to-failure data for accurate model development. This has been one of the main roadblocks for developing prognostic models for high reliability or safety critical systems: equipment rarely malfunctions; when it does, it is often times repaired before failure occurs. This presentation the work completed in developing and validating an accurate prognostic system for several potential SMR system fault modes using high-fidelity simulated data before any plant operation takes place.

**All students and faculty are invited to attend. UTNE Graduate Students who hold Assistantships or Fellowships are required to attend in person.**

**Refreshments will be provided in 219 Pasqua immediately following the colloquium.**

Response because  
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## Moore, Marsha M.

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