

AGENDA

NSF Industry/University Program Annual Review – November 2-4, 2009 UTSim Short Course – November 4-6, 2009

Monday, November 2 – 102 Applied Sciences Complex III, 1915 Scholl Road, Ames, IA 50011-3042

Information Meeting – Electromagnetic NDE Overview

Objective: To provide the sponsors with a high-level overview of all CNDE programs aimed at understanding and improving electromagnetic NDE.

Format: A series of 10-minute presentations will be given describing work that is being supported by a variety of sources of funding.

5:00 p.m.	Meeting Objectives	Bruce Thompson
5:10	Electromagnetic Characterization of Composite Materials	Nicola Bowler
5:20	Electromagnetic NDE of Insulation	Nicola Bowler
5:30	Analytical Approaches to Simulation of Eddy Current Response of Cracks in Canonical, Complex Geometries	John Bowler
5:40	Transient Eddy Current Signal Calculation and Evaluation	John Bowler
5:50	Development and Application of Eddy Current Models for MAPOD	Norio Nakagawa
6:00	Eddy Current Residual Stress Assessment	Norio Nakagawa
6:10	Effects of Defect Morphology on Eddy Current Signals	Norio Nakagawa
6:20	Eddy Current Detection of Machining Induced Anomalies	Chester Lo
6:30	Model-Based Materials Characterization Using Fourier-Transform Infrared Spectroscopy ..	Thomas Chiou
7:30 p.m.	Industrial Advisory Board Meeting – 102 Applied Sciences Complex III	Chair: Surendra Singh, Honeywell Aerospace
	<u>Old business:</u>	
	▪ Critique of Information Meeting	
	▪ Update on Distance Education	
	▪ Update on NDE Minor	
	▪ Status of Project Planning Process	
	▪ Results of Simulation Users Feedback Survey	
	<u>New business:</u>	
	▪ ERC Preliminary Proposal	
	▪ I/UCRC Phase III Renewal Proposal	
	▪ Upcoming Schedules	

Tuesday, November 3 – Auditorium, Room 257, Applied Sciences Complex II

8:00 a.m.	Continental Breakfast	
8:30	Center Summary	Bruce Thompson, Director – CNDE Norio Nakagawa, Chair
	<u>Technical Review</u>	
9:00	4.1 Magnetic Inspection Methods for Nondestructive Evaluation	Chester Lo
9:25	3.1 Penetrating Radiation Methods in NDE: X-Ray and Neutron	Joe Gray
9:50	1.1 Ultrasonic Techniques and Tool Development	Tim Gray
10:15	Coffee Break	

10:30 Poster Session and Discussion – 1st Floor, Applied Sciences Complex II

12:00 Catered Lunch – 102 Applied Sciences Complex III

Technical Review

John Bowler, Chair

1:30 p.m. 7.1 Detection and Characterization of Defects in Composites.....

David Hsu

1:55 Supplemental Project – Vibrothermography.....

Steve Holland

2:20 Terahertz Imaging Facility

Thomas Chiou

2:45 Overview of Terahertz Applications.....

Don Arnone, TeraView

3:15 Coffee Break

3:30 Tour of Terahertz Imaging Facility – 137-1 Applied Sciences Complex III

Poster Session and Discussion – 1st Floor, Applied Sciences Complex II

5:00 Adjourn

6:00 *Dinner Location – Olde Main Restaurant, 316 Main Street, Ames, IA*
Social Gathering – 6:00 p.m. with Dinner at 6:45 p.m.

Wednesday, November 4 – Auditorium, Room 257, Applied Sciences Complex II

7:45 a.m. Continental Breakfast

8:00 Pratt & Whitney Sponsor Presentation.....

Kevin Smith

8:30 Rolls-Royce Sponsor Presentation.....

Waled Hassan

9:00 Feedback Session

Bruce Thompson

9:15 Coffee Break

9:30 Electromagnetics Roadmap Planning Session

John Bowler, Nicola Bowler, Norio Nakagawa, and Bruce Thompson

11:00 Industrial Advisory Board Meeting

Chair: Surendra Singh, Honeywell

12:00 p.m. Adjourn

UTSIM SHORT COURSE – 152 Applied Sciences Complex III, Computer Lab

Mike Garton and Tim Gray

Wed. pm Introduction to UTSim (demo of basics by presenters + hands-on activity by attendees)

Overview of Physics in UTSim

5:00 Adjourn

Thursday, November 5 – 152 Applied Sciences Complex III, Computer Lab

am Applications of UTSim (hands on)

12:00 p.m. Lunch – 102 Applied Sciences Complex III
pm Demonstration of New and Advanced UTSim Features (e.g., large flaw model)

3:00 Break

3:15 Wrap up & discussion

Friday, November 6 – 152 Applied Sciences Complex III, Computer Lab

Informal follow-up activities for attendees who want to stay another day