

SUNDAY, FEBRUARY 12

2:00PM-6:00PM Registration Opens
Location: Medallion Salon C/D

MONDAY, FEBRUARY 13

7:00AM-5:30PM Registration
Location: Medallion Salon C/D

8:00AM-11:00AM Committee Meetings
Location: Mezzanine Ballroom

8:00AM-10:30AM CPD#1 - Mass & Energy Balance
Instructor: Dr. Harold Keener, Ohio State University
Location: Medallion Salon A

Conservation of mass and energy is fundamental to all processes. Methods of calculating and balancing the calculations on mass and energy balance depends upon the system under study. This workshop details out the methods of accounting for energy and mass inputs, changes in mass and energy with time, losses and outputs. Examples from various energy systems will be presented.

8:30AM-10:30AM CPD#2 - Fundamentals of Life Cycle Analysis

Instructor: Sudhagar Mani, University of Georgia
Location: Medallion Salon B

Life cycle assessment (LCA) is a method of accounting for a particulate attribute or property of a product during the entire life or in some cases a segment of its life. Although LCA was originally designed for calculation of mass and energy input outputs, but it is now applied to economics, social, and health related concerns. This CPD workshop will provides a consistent method of collecting data, calculations, and interpretation of the results. International standards for LCA including several computer programs for LCA will be introduced.

10:30AM-12:00PM Suppliers and Consultants Display
Location: Medallion Salon C/D

12:00PM-1:30PM LUNCHEON – w/Keynote Speaker Al Rider
“Achieving 25 by ’25, Moving the Nation to Renewable Energy Consumption”
Location: Grand Ballroom – 10th Floor

“One of the most important aspects of achieving this goal is the positive impact on agriculture and the associated businesses. We clearly have the capability to provide a significant portion of the nation's energy without adversely affecting the other objectives of agriculture to provide affordable food, feed and fiber.” – Allen R. Rider

Mr. Rider will review the goal and status of 25 by’25, including current levels of renewable energy production, and describe the driving forces for meeting the goal. Mr. Rider will also discuss data projecting job and economic activity associated with achieving the goal, economic and political barriers to achieving the goal, and proposed tactics to address the major issues.

1:30PM-3:30PM Tech Session 1 - Supplier Showcase

Moderator: Neal Stoffel

Location: Medallion Salon A

AETC 2012 will again feature some of the world's finest agricultural equipment component/systems providers. These companies will be presenting their AE50 winning entries. They will also have tabletop displays of their products, literature and contact information. Don't miss out on this opportunity to learn about these latest developments.

1:30PM Introduction

1:35PM OmniSeed Air Seeder Control System

Douglas Prairie, Raven Industries

1:55PM Electric Planter Drive

Toby Graham, Graham Equipment

2:15PM RESPA®-CF Vortex HyperFLOW™ Cab Air Quality System

Jeff Moredock, Sy-Klone International

2:35PM Water Express™ End Cap, Scorpio Spray Valve

John Lang and Mark Mohr, HYPRO-Pentair

2:55PM LoadOut – Yellow Box

Neil Mylet LoadOut Technologies

1:30PM-3:30PM Tech Session 2 - Energy Panel Session

Moderator: Doug Otto, CNH

Location: Medallion Salon B

Renewable energy and sustainability continues to be a large part of the Federal Government agenda. The resulting policies directly affect our agricultural and forestry industry. Members of the 25 x '25 Alliance will discuss the current governmental policies and programs that are driving toward the 25% renewable energy goal. The session will conclude with a question and answer period with the panel.

Panelist: Tim Hughes, Kentucky Energy and Environment Cabinet
 Dr. Patrick T. Murphy, Purdue University
 Dr. Ray Smith, University of Kentucky
 Matthew Markee, Recast Energy LLC

1:30PM-9:00PM Committee Meetings

Location: Mezzanine Ballroom

3:30PM-5:30PM Tech Session 3 - Supplier Technology: Synthetic and Bio-Based Lubricants

Moderator: Neal Stoffel
Location: Medallion Salon A

This session will consist of the top suppliers of synthetic and bio-based lubricants to the agricultural / industrial market. They will present information on the history of fluid lubrication, the present state of development and further discuss the impact of synthetic and bio-based lubricants on the design and development of agricultural machinery.

3:30PM Introduction

3:35PM An Overview of Fluid Lubrication

David R. Anderson, Senior Analyst, Corporate Technical Fellow,
Amsoil, Inc.

4:00PM TBD

Sam Burkett, President, BioBlend Renewable Resources LLC

4:25PM TBD

Jacqueline L. Garmie, President, Renewable Lubricants Inc.

4:50PM TBD

Steve Brewer CLS, Vice President Sales and Marketing, Schaeffer
Specialized Lubricants

3:30PM-5:30PM Tech Session 4 - Densification of Biomass

Moderator: Shahab Sokhansanj
Location: Medallion Salon B

Densification of biomass is defined as a process of granulating that would increase the bulk density of biomass to facilitate its handling and transport. The production of pelletized biomass especially wood pellets have experienced a dramatic increase in recent years. This increase has brought forth concerns regarding pellet durability, dust and particulate emissions, and human health and safety. Research and development efforts are underway to increase the energy density of pellets by partial carbonization (torrefaction) of pellets. This session is a forum to discuss available and potential technologies for commercial production of and safe handling of pellets.

3:30PM Introduction to Densification

Shahab Sokhansanj , Oak Ridge National Laboratory

4:00PM Physical Characteristics of Feedstock for Densification

Oladiran Fasina, Auburn University

4:30PM Safety and Compliance
Staffan Melin, Delta Research Corp, Delta, BC, Canada

5:00PM Controls and Management
Bijan Shams, Cogent Industries, Inc., Richmond, BC, Canada

5:30PM-7:00PM Poster Session – Social Event

Location: Medallion Salon C/D

Agricultural Equipment Technology Conference will hold its annual meeting in Louisville, KY during February 13-15, 2012. Several technical sessions are planned to focus on equipment (forestry, agriculture, processing), instrumentation, engineering practices, logistics, and sustainability. The attendees in AETC are engineers and technical managers mostly from manufacturing and related businesses. Researchers and practitioners are invited to present their work in the form of poster presentations in this event. All posters will have an ASABE number and will be placed on the ASABE publication site.

TUESDAY, FEBRUARY 14

7:00AM Purdue University Alumni and Friends Complimentary Breakfast
Location: Grand Ballroom (10th Floor)

7:30AM Registration
Location: Medallion Salon C/D

8:00AM-12:00PM Committee Meetings

8:30AM-10:00AM Distinguished Lecture
Moderator: Kevin Smith
Location: Medallion Salon A

“Ergonomics in Off Road Vehicles”

Kyle Dooley, CNH

The 35th annual Distinguished Lecture will cover Ergonomics in Off Road Vehicles and be presented by Mr. Kyle Dooley, Manager of Case New Holland's Ergonomics Center of Excellence.



Kyle Dooley is the Manager of Case New Holland's Ergonomics Center of Excellence and has global ergonomics responsibility for CNH's entire agricultural and construction equipment product lines. Based at CNH's Burr Ridge Technical Center, near Chicago, Kyle has been with CNH for almost 12 years. In that time, he has positively influenced the ergonomic design of several award-

winning CNH products including: CaseIH Magnum, Steiger and Puma tractors, AFX Combines, New Holland Boomer Tractors, CR/CX Combines and FR Forage Harvesters.

Prior to joining CNH, Kyle worked in a variety of challenging product ergonomics industries including Formula 1 race car and Emergency Vehicle design.

His education includes a BS with Honors in Kinesiology from Dalhousie University in Canada, and an MS in Ergonomics from Loughborough University in the UK.

Originally from Nova Scotia, Kyle currently lives in the western Chicago suburbs with his wife, Jennifer and enjoys a bit of golf when he can.

10:00AM-12:00PM Tech Session 5 – Equipment for Harvesting Specialty Crops

Moderator: Doug Otto

Location: Medallion Salon A

Many crops are harvested using highly specialized equipment due to plant structure, physical properties of the commodity, and their final use. This session will highlight equipment used to harvest peanuts, cotton, sugarcane and fresh fruits and vegetables.

10:00AM Introduction – Doug Otto

10:05AM Cotton Harvesting – Progress and Challenges

Jeffrey Fox, Sr. Project Engineer, Cotton Engineering, John Deere
Des Moines Works

10:30AM Sugarcane Harvesting – Progress and Challenges

Billy Lawson, CNH

11:00AM Equipment to Harvest Fruits and Vegetables

Allen Russell, PE, Project Manager, Oxbo Corporation

11:30AM Peanut Harvesting – Progress and Challenges

Joel Peele, Jr., Design Engineer, Amades Industries

10:00AM-12:00PM Tech Session 6 – The Why and How of Modifying Agricultural Equipment for the Disabled

Moderator: Chris Butts

Location: Medallion Salon B

Design and layout of agricultural equipment affects the safety, efficiency, and access. Presentations describe design of adaptive equipment to increase accessibility by those with physical, visual, and hearing impairments.

10:00AM Introductions – Chris Butts

10:05AM Prevalence of Disability in the Agricultural Community

Bill Field, Purdue University

10:30AM Historical Overview of Agricultural Equipment Modifications for Farmers Impacted by Disability

Bill Field, Purdue University

11:00AM Ergonomic Factors in Accessible Design

Robert Stuthridge, Purdue University

11:30AM Life Essentials – Accessibility: A User and Manufacturer's Perspective

Hubert Von Holton, Life Essentials, Brookston, IN

12:00PM-1:30PM AE50 Recognition Luncheon

Location: Grand Ballroom (10th Floor)

The 50 winning products in the AE50 competition will be announced. Short descriptions of each product along with photos will highlight the presentation of the award plaques.

1:30PM-3:10PM Tech Session 7 - AE50 Showcase 1

Moderator: Brian Huenink

Location: Medallion Salon A

1:30PM Cornrower – Corn Stover Windrowing Attachment to a Corn Header

James Straeter, New Holland Rochester, Inc.

1:55PM RoGator RG1300/TerraGator® TG8400

David Webster, AGCO Corp.

2:20PM 600 Series HydraFlex™ Draper Platforms/600C Series Corn Head

Ben Ramp, Kim Cramer, Chad, Dow, John Deere

2:45PM S-Series Combine

Ben Ramp, Kim Cramer, Chad, Dow, John Deere

1:30PM-3:00PM Tech Session 8 - Standards and Regulation Development for Ag Equipment

Moderator: Scott Cedarquist

Location: Medallion Salon B

This session will overview key standards development activities pertaining to agricultural equipment. Project leadership and ASABE Staff will provide updates on select topics being pursued within both ASABE and ISO.

NH3 Application Equipment ASABE Standard

Jim Hellbusch

ISO/TC23/SC6 Update – Equipment for Crop Protection

Randy Renze

North American Legislative Issues Impacting Agricultural Equipment

Mike Weber

European Legislative Issues Impacting Agricultural Equipment: Updates on the Proposed Tractor Directive

Antoon Vermeulen

1:30PM-9:00PM Committee Meetings

Location: Mezzanine Ballroom

3:30PM-5:30PM Tech Session 9 - AE50 Showcase 2

Moderator: Rusty Unterzuber

Location: Medallion Salon A

3:30PM 7R Series Tractor
Scott Hudson, John Deere

3:55PM T8 Tractor
Doug Otto, New Holland

4:20PM T9 560 4WD Tractor
Doug Otto, New Holland

4:45PM Steiger® 600 Tractor
Jeff Akel, Case IH

5:10PM Grain Buster/Single Phase Centrifugal Dryer
Charles Sukup, Sukup Mfg.

5:35PM SafeT Home
Charles Sukup, Sukup Mfg.

3:30PM-5:30PM Tech Session 10 - Embedded Control Systems

Moderator: David Kuhnel

Location: Medallion Salon B

This session is planned to increase an engineer's awareness of advanced design tools and new standards for use in designing open and safe embedded control systems for agricultural equipment. Tools and processes for developing large embedded networks will be presented. The design of these complex networked systems often expands the development team into a multi-location or multi-company collaboration. The latest information on the ISO 11783 standard will be presented and the industry application of the standard known as "ISOBUS". Functional safety of control systems will be introduced with references to ISO 25119 part 2; the "Concept phase" of "Safety-related parts of control systems". Advanced model based design tools are being used to design real-world embedded control applications. The last half of the session will cover the practical application of model based design in electro-hydraulic applications. Finishing up with several model based design research examples and commercial platforms for building embedded systems.

3:30PM Introduction – David Kuhnel

3:35PM Developing Embedded Networks
Jason Evans, Vector Cantech

4:05PM ISO 11783 Status and ISOBUS Future
David Kuhnel, DICKEY-john

4:15PM Safety of Control Systems
Antoon Vermeulen, CNH Belgium N.V.

4:40PM Model Based Design
Richard C. Swortzel, P.E., New Eagle

5:05PM Applications of Model Based Design
Marc E. Herniter, Rose-Hulman Institute of Technology and Zac
Chambers – ME Department, Rose-Hulman Institute of
Technology

5:00PM-6:30PM Career Fair
Location: Medallion Salon C/D

6:45PM Student-Industry Activity at Downtown Sports LLC

WEDNESDAY, FEBRUARY 15

7:00AM-9:00AM AETC Planning Committee
Location: Mezzanine D

8:00AM-9:00AM PM-23 Tractors & Machinery for Agriculture Forestry
Location: Mezzanine B/C

9:00AM-11:00AM PM-03 Standards Committee
Location: Mezzanine B/C

Make plans to visit

ASABE – FEMA – AEM

Agricultural Safety Promotional Exhibit

Exhibit located in the lobby of the west hall – National Farm Machinery Show

The exhibit is made possible through collaboration with
Dale Dobson from the Kentucky Department of Agriculture.