

AETC Program

(Subject to Change)

Monday, February 8

7:00AM

Registration

LOCATION: Medallion C/D

8:00AM-10:30AM

CONTINUING EDUCATION PROFESSIONAL DEVELOPMENT SESSIONS

8:00AM

CPD #1 – PC Based Data Acquisition

Instructor: Michael Sama

COST: \$50.00

LOCATION: Medallion A

Participants will learn the basics of PC-based data acquisition for acquiring and recording mixed-signal data. Topics will include analog-to-digital and digital-to-analog conversion, digital inputs and outputs, counting and frequency inputs, data acquisition hardware, and programming using Visual Studio .NET. Hands on exercises will be interspersed between topics. Experience with basic circuit analysis and programming will be helpful, but is not required. Size is limited to 10 participants.

8:00AM

CPD #2 – Managing Your Data: Tools for Efficient Data Storage and Analysis

Instructor: Luke Zwilling

COST: \$50.00

LOCATION: Medallion B

Introduce professionals to tools useful in increasing efficiency and managing daily data related activities. This course will assist in developing participants' skills in applying better data presentation practices. Topics will include: efficient data storage, basic coding for data analysis, working with Geospatial data and other topics.

The course will be hands-on, so please bring your laptop.

9:00AM-11:15AM

TOUR- Louisville Slugger Museum & Factory

COST: Students- \$11, Others- \$13

LOCATION: Meet at AETC registration

The Louisville Slugger Museum & Factory is a fun, exciting and educational opportunity for attendees. See the world's tallest bat and learn about the bat making process from forest to factory. Witness important scientific principles at work. Discover the world's oldest baseball glove. Face down a 90mph fastball and much more. \$11 for students and \$13 for others.

11:00AM-12:00PM **SUPPLIERS AND CONSULTANTS DISPLAY/ELECTRONIC POSTER CONTEST**
LOCATION: Medallion C/D

12:00PM-1:30PM **LUNCHEON w/ KEYNOTE ADDRESS**
“A 20 Year View on the Industry”
John Phipps
LOCATION: Grand Ballroom- 10th Floor

1:30PM **CONCURRENT TECHNICAL SESSIONS 1, 2**

1:30PM-3:30PM **TS#1 - Lightweight Casting Design**

LOCATION: Medallion A

Moderator: Andy Theisen

As agricultural vehicles have grown in overall size, concerns over the weight of these vehicles has also grown. With increasing legislative pressures to restrict transport weights and the continued need to reduce ground compaction in the field, weight reduction has become a key design feature. Cost concerns continue to make alternative materials prohibitive. This session will focus on material selection of ductile iron as way to reduce complexity and weight in your designs without component cost increases. The speakers will highlight the high strength to weight ratio of ductile iron and how post processing can enhance the material properties to further improve strength, wear, and toughness while reducing the weight of the components.

1:30PM

Introduction

1:35PM

Ductile Iron Castings for Weight Reduction

John Lewensky, Business Development Manager, Farrar Corporation

1:55PM

Enhancing Strength with Austempered Ductile Iron

TBA, Applied Process

2:15PM

Laser Surface Enhancement for Ductile Iron

Andy Theisen, Kondex

2:35PM

Casting Design Consideration and Tools

Vadim Pikovich, Magmasoft

1:30PM-3:30PM **TS#2 - Ash Reduction in Biomass Feedstock for Biofuel**

LOCATION: Medallion B

Moderator: Sam Tagore, BioEnergy Technology Office (BETO), US Dept of Energy

The high levels of ash in feedstock interfere with the effectiveness of converting biomass to biofuels. The source of ash can be from the dirt picked up during harvest in addition to the natural ash in the material. Field research shows that the total ash content of the collected biomass often surpasses the maximum allowable for biochemical or thermochemical conversions. Strategies are developed to reduce the levels of ash content in biomass during harvest. These strategies include increasing the height of the cut, working on firm and even ground, and devising sieving and shaving mechanism within the equipment. Remedial methods like water, acid, or alkali wash systems have also been practiced or suggested prior to introducing the biomass into chemical and physical conversions. This session reviews the latest development in technologies to reduce ash in biomass feedstock.

1:30PM

Introduction

1:35PM

On-the-go Measuring Ash and Other Chemicals during Harvest

- 1:55PM Bill Smith, Idaho National Laboratory
Conventional and Single Pass Stover Harvest in Relation to Ash Reduction
 Matt Darr, Iowa State University
- 2:15PM **The Role of Fuel Ash in Energy Conversion and Handling of Spent Ash as Fertilizer**
 Danny Gray, Charah, Inc.
- 2:35PM **Cost Benefit Analysis of Ash Reduction Using Dry and Wet Techniques**
 Shahab Sokhansanj, Oak Ridge National Laboratory

3:30PM **CONCURRENT TECHNICAL SESSIONS 3, 4**
3:30PM-5:30PM **TS#3 - Advancements in Forage & Biomass Technologies**
 LOCATION: Medallion A
 Moderator: Kent Thoreson

- 3:30PM **Introduction**
- 3:35PM **Precision Agriculture in Forage Harvesters**
 Doug Otto, CNH Industrial
- 3:55PM **Tracking & Tracing Forage Product**
 Chris Horton, Manager of Product Planning, Digi-Star
- 4:15PM **iBand-It iPad app**
 Lacy Brown, GFC
- 4:35PM **Measuring and tracking feed quality (RFV or TDN) on a large square baler as it produces alfalfa**
 Jeff Roberts, HarvestTec

3:30PM-5:30PM **TS#4 - Supplier Technology**
 LOCATION: Medallion B
 Moderator: Scott Frost

5:30PM-6:30PM **PANEL DISCUSSION**
The Industry Panel – A 20 Year Look

LOCATION: Medallion A
 Moderator: Chad Yagow
 In order to mark the 20th Anniversary of the Agricultural Equipment Technology Conference, a panel of leaders from ASABE and the agricultural industry will share their views on agriculture, spanning the past and coming 20 years. Panel participants bring experience from government, industry, OEM manufacturing, component manufacturing, row crop agriculture, animal agriculture and many other areas. This session will be an interactive opportunity for the audience to pose questions to the panel and to generate thought provoking discussion on where we've been and where we might be going. Please join us for this engaging and celebratory session.

Speakers:

- Maury Salz, Claas America
- Brad Rein, USDA National Institute of Food and Agriculture
- Neal Stoffel, Kondex Corporation
- Charlie O'Brien, AEM
- John Phipps, Farm Journal Media (ret.)

- Larry Hoover, CNH Industrial

7:00PM-9:00PM **STUDENT/INDUSTRY MIXER**
Dinner and Bowling Social
 LOCATION: Sport and Social Club, Fourth Street Live

Tuesday, February 9

7:00AM **Registration**
 LOCATION: Medallion C/D

7:30AM **CONCURRENT TECHNICAL SESSIONS 5, 6**
7:30AM-10:00AM **TS#5 - Standards Session**
 LOCATION: Medallion A
 Moderator: Scott Cedarquist

7:30AM **Introduction**

7:35AM **US Regulatory Issues Associated with Agricultural Equipment**
 Nick Tindall, Association of Equipment Manufacturers (AEM)

7:55AM **Canadian Agricultural Equipment Standardization**
 Priya Malik, Canadian Standards Association (CSA)

8:15AM **Canadian Standards Development, a Grower's Perspective**
 Dan Mazier, Keystone Agricultural Producers of Manitoba

8:35AM **Ties between the Agricultural Electronics Foundation and ISO Standards Development**
 Jaap van Bergeijk, AGCO

8:55AM **Future Improvements to ASAE S365.9, Braking System Test Procedures and Braking Performance for Agricultural Field Equipment**
 Ron Stoltenberg, AGCO & Chair, Agricultural Equipment Braking

9:15AM **The Ever Expanding Portfolio of ISO 4254 Safety Standards**
 Chris Schneider, John Deere

9:35AM **An Update on Sustainability Standards**
 Scott Cedarquist

8:00AM-10:00AM **TS#6 – Electrification: The New Frontier in Agriculture Machinery**
 LOCATION: Medallion B
 Moderator: Joe Dvorak

8:00AM **Introduction**

8:05AM **The Benefits of Electrification: Application on a Gyorake**
 Nicholas Gauer, Kuhn

8:25AM **Electric Machines for Off-Road Mobile Equipment**
 Jim Shoemaker, John Deere

8:45AM **Examining Practical Ways to Maximize Power Density in Electric Machines for Traction and Power Generation in Hybrid Electric Vehicles**
 Jay W Schultz, Steve Huard, Parker Hannifin

- 9:05AM** **The History of Electrification in Other Industries and the Implications for Agricultural Machinery**
Mark Woods, Zapi, Inc.
- 10:00AM** **CONCURRENT TECHNICAL SESSIONS 7, 8**
10:00AM-12:00PM **TS#7 - Cover Crops and Their Role in Nutrient Management**
LOCATION: Medallion A
Moderator: Kent Thoreson
- 10:00AM** **Introduction**
10:05AM **Effect of winter cover cropping practices on nutrient cycling and maize yield**
Jude Holscher, Agrible
- 10:25AM** **Hagie Manufacturing Cover Crop Interseeder**
Rachel Halbach & Newt Lingenfelter, Hagie Manufacturing
- 10:45AM** **TBA**
Kent Cavender-Bares, ROWBOT
- 11:05AM** **Integrating Manure and Cover Crops with Low-Disturbance Tillage**
Tim Harrigan, Michigan State University
- 10:00AM-12:00PM** **TS#8 - Supplier Showcase**
LOCATION: Medallion B
Moderator: Neal Stoffel, Kondex
AETC 2016 will again feature some of the world's finest agricultural equipment component/systems manufacturers and distributors. These companies will be presenting the newest innovations and most up-to-date information on a variety of agricultural machinery systems of interest to attendees. The supplier companies presenting will also have tabletop displays of their products, literature, and contact information. Don't miss out on this opportunity to learn about the latest developments, from the world's best agriculture OEM suppliers.
- 10:00AM** **Introduction**
10:05AM **QuadraTouch Pro™ featuring SMART Loop™**
Matt Koch, Sukup Manufacturing Co.
- 10:25AM** **Poultry Lighting – Helping Them See the Light**
Scott Holland and Jennifer Stout, I-Lighting LLC
- 10:45AM** **Graham Pro Electric Planter Drive**
Jerry Graham, Partner – Graham Equipment
- 11:05AM** **PowerFold® Folding System for Front 3-Point Hitches**
Mr. Hubert Defrancq, President – LAFORGE Systems, Inc.
- 12:00PM-1:30PM** **AE50 AWARDS LUNCHEON**
LOCATION: Grand Ballroom – 10th Floor
- 1:30PM-3:30PM** **AE50 Showcase I**
LOCATION: Medallion A/B
Moderator: Brian Huenink, John Deere
- 1:30PM** **Introduction**
1:35PM **Sunflower 9830 NT Series Single Disc Air Drill**
Kevin Bien, AGCO Corporation

2:00PM **SF 6830 Rotary Finisher**
Kevin Bien, AGCO Corporation

2:25PM **PremiumSort Cleaning System**
Mike Vande Voort, Oxbo International Corp

2:50PM **FC 3160 TLR Side-Pull Disc Mower Conditioner**
Christophe Jeanroy, Kuhn North America Inc.

3:10PM **SW 4014 Square Bale Wrapper**
Christophe Jeanroy, Kuhn North America Inc.

3:30PM-4:00PM **Break / YPC “ALL IN GOOD FUN” CONTEST**
LOCATION: Medallion C/D

4:00PM-6:00PM **AE50 Showcase II**
LOCATION: Medallion A/B
Moderator: Brian Huenink, John Deere

4:00PM **Introduction**

4:05PM **6R Series Tractor for 2016 (110-155hp)**
Justin Dahlager, John Deere

4:30PM **Fendt 500 Vario Tractor**
Josh Keeney/Kevin Jones, AGCO Corporation

4:55PM **T7.315 and T7.290 Heavy Duty Tractors**
TBA, New Holland

5:20PM **Spreader-Sprayer**
TBA

5:45PM **Flexi-Coil® P Series Air Carts**
TBA