

	POWER & MACHINERY	SOIL & WATER	INFORMATION & ELECTRICAL TECHNOLOGIES	STRUCTURES & ENVIRONMENT	ERGONOMICS, SAFETY & HEALTH	FOOD & PROCESS ENGINEERING	BIOLOGICAL ENGINEERING	EDUCATION, INTERNATIONAL, & OTHER AREAS	ENERGY & FORESTRY		
MONDAY, JUNE 21	KEYNOTE SPEAKER - GENERAL SESSION - 8:00AM-9:15AM										
	9:30 AM to 12 NOON	101 (PM-3) Harvest Systems for Biomass Feedstocks (PM-23/7/2) 102 (PM-11) Advances in Tractive and Transport Efficiency (PM-46) 103 (PM-19) Variable-Rate Technology for Precision Agriculture (PM-54, PM-23/6)	104 Soil and Water Division Poster Session SW-30 - Drainage Group (SW-23) SW-34 - Irrigation Group (SW-24) SW-37 - Structures Group (SW-25) SW-41 - Issues Involving the Rural/Urban Interface (SW-26) SW-13 - Erosion Group (SW-22) SW-4 - Hydrology Group (SW-21)	105 (IET-8a) Machine Vision for Agricultural Automation and Management - Part 1 (IET-312) 106 (IET-13a) Multispectral and Hyperspectral Sensing Applications - Part 1 (IET-348, PM-54) 107 (IET-20a) Sensors and Controls for Precision Agriculture - Part 1: Sensors (IET-353, PM-54) 108 (IET-18) Advances in Instrumentation and Controls (IET-353, IET-254)	109 (SE-1) Animal Responses to Environmental Factors (SE-301, SE-413) 110 (SE-7) Measurement and Mitigation of Gaseous Pollutants from Livestock and Poultry Manure Storage and Treatment Systems (SE-305) 111 (SE-13) Anaerobic Digestion Advances in Manure, Food and Organic Wastes (SE-40, FPE-707, SE-412) 112 (SE-4) Greenhouse and Nursery Technology Applications (SE-303)	113 (ESH-3) Safety Improvements Through Design	114 (FPE-18) Advances in Coproduct and Byproduct Management and Utilization (FPE-707) 115 (FPE-11) Microwave and Radio Frequency Heating and Drying in Ag and Food Processing (FPE-703) 116 (FPE-7) Crop Drying, Handling and Storage (FPE-702) 117 (FPE-30) Integrated Biorefineries (FPE-709) INVITED SPEAKERS	118 (BE) Fifth Annual Biological Engineers Standards Roundtable Discussion - RAP SESSION 119 (BE-15) Automation and Biosensors in Food Processing (BE-23) 120 (BE-6) Applications of Ecological Engineering (BE-22) 121 (BE-18) Bioremediation and Fractionation Processes (BE-28)	122 (EDU-2) Instruction Activities for Engaging Students (ED-205) 123 (INTL-1a) Trends in the Agricultural and Biological Engineering Practices in Developing Countries - Part 1 (Intl-601)	124 (E-1) Forest Based Biomass: Harvesting, Processing, Transport & Storage (T-12)	9:30 AM to 12 NOON
	2:30 PM to 5:00 PM	125 (PM-4) Engineering for Forage Harvest and Storage (PM-23/7/2) 126 (PM-6) Advances in Cotton Engineering (PM-23/7/3) 127 (PM-21) Geospatial Technologies and Analysis for Management Decision Making (PM-54, PM-43)	128 (SW-2) Land Use Change Effects on Water Quality (SW-21) 129 (SW-8) Historical and Recent Advances in Vegetative Filter Strip Modeling (SW-21, SW-22, BE-22) INVITED SPEAKERS 130 (SW-18) Streambank Erosion and Stream Restoration (SW-224) 131 (SW-27) Drainage Impacts on Water Quality and Quantity (SW-23) 132 (SW-36) Dam Removal and Rehabilitation (SW-25)	133 (IET-14) Multispectral and Hyperspectral Sensing Methods and Techniques (IET-348, PM-54) 134 (IET-11) Sensors and Actuators for Automation and BioRobotics (IET-318) 135 (IET) Spectral Scattering Technology for Food Quality and Safety Evaluation (FPE-701, IET-348) INVITED SPEAKERS 136 (IET-9) Machine Vision for Agricultural Autonomous Vehicles and Robotics (IET-312)	137 (SE-20) Housing Systems for Improved Animal Care (SE-404, SE-412, SE-403, SE-405, SE-402) 138 (SE-8) Air Quality as Related to Agricultural Waste Management - Part 1 (SE-305) 139 (SE-22) Animal Biomass to Energy (SE-412, SW-263, BE-28) 140 (SE-23) Economics of Manure Management (SE-412, SW-263, FPE-707)	141 (ESH-2) Improving Quality of Life Through Design and Education	142 (FPE) Food and Process Engineering Division Poster Session 143 (FPE-16) Anaerobic Digestion and Biogas Production Processing and Utilization (FPE-707) 144 (FPE-8) Bioenergy Co-Products (FPE-702, FPE-709) 145 (FPE-6) Energy Consumption in Crop Drying (FPE-702)	146 (BE) Biological Engineering Division Poster Session 147 (EDU-3) Innovations in Undergraduate and Graduate Education (ED-203, ED-205, ED-206) 148 (INTL-1b) Trends in the Agricultural and Biological Engineering Practices in Developing Countries - Part 1 (Intl-601) 149 Perspectives n Indo-US Collaborative Projects INVITED SPEAKERS			2:30 PM to 5:00 PM
9:30 AM to 12 NOON	201 (PM-1a) Application Technology Equipment and Methods (PM-23/6) 202 (PM-5) Storage Systems and Logistics for Biomass Feedstocks (PM-23/7/2, FPE-702) 203 (PM-12) Specialty Crops Engineering (PM-48)	204 (SW-50) Perspectives and Innovations in Soil and Water Engineering INVITED SPEAKERS	206 (IET-8b) Machine Vision for Agricultural Automation and Management - Part 2 (IET-312) 207 (IET-13b) Multispectral and Hyperspectral Sensing Applications - Part 2 (IET-348, PM-54) 208 (IET-20b) Sensors and Controls for Precision Agriculture - Part 2: Sprayers (IET-353, PM-54) 209 (IET-3) Bioenergy Simulation, Modeling, and Analysis (IET-217, FPE-709, T-11) 210 (IET-15) Dielectric Spectroscopy (IET-348)	211 Structures and Environment Division Poster Session (SE-9) Air Quality as Related to Agricultural Waste Management - Part 2 (SE-305)	212 (ESH-1) Addressing Disability Needs Among the Farm Population	213 (FPE-17a) Physical and Chemical Properties of Bioresource Products, Byproducts, and Coproducts - Part 1 (FPE-707) 214 (FPE-15) Emerging Technologies in Food Processing (FPE-703) 215 (FPE-5) Crop Storage and Handling Research: Capabilities and Needs in the United States (FPE-702) INVITED SPEAKERS 216 (FPE-20a) Biomass Feedstock Logistics and Processing Part 1 (FPE-709)	217 (BE-2) Explorations and Issues in the Application of Nanoscience and Nanoscale Engineering (BE-21, ESH-04, Intl-601, FPE-703) 218 (BE-5) Engineering and Management for Sustainable Ecosystems and Monitoring of Emerging Contaminants (BE-22) 219 (BE-19a) Bioprocessing for Value Added products - Part 1 (BE-28)	220 China Exchange INVITED SPEAKERS (Intl-2) 221 Future of Extension Programming through eXtension RAP SESSION (ED-208) 222 (EDU-5) Ethics and Professionalism 223 Burning Issues in Ag & Biological Engineering Curriculum (ED-211) RAP SESSION	224 (E3) Woody Biomass Processing and Conversion (T-12, T-11, BE-28)	9:30 AM to 12 NOON	
TUESDAY, JUNE 22	ASABE BUSINESS MEETING - 12:30PM-2:00PM										
	2:30 PM to 5:00 PM	225 Power and Machinery Division Poster Session (PM-14) Automation and New Technologies for Specialty Crops (PM-48, PM-58, PM-54) (PM-11) Advances in Tractive and Transport Efficiency (PM-46) (PM-15) Various Topics in Precision Agriculture (PM-54) (PM-7) Conservation Tillage Systems and Soil Sustainability (PM-42, SW-225, SW-26) Application Technologies (PM-23/6)	226 (SW-3) Hydrology and Water Quality Modeling: Advances, Challenges and Directions - Part 1 (SW-21) 227 (SW-12) Application of Weather and Climate Forecasts in Water Resources (SW-21, SW-24, BE-22, BE-26) 228 (SW-15) Soil Erosion Research (SW-223) 229 (SW-31) Innovations in Irrigation (SW-24) 230 (SW-51) Standards for Calibration and Evaluation of Models - RAP SESSION	231 Information and Electrical Technologies Division Poster Session IET-2 - Computational Methods (IET-217) IET-17 - Electromagnetics and Spectroscopy (IET-348)	232 (SE12a) Measurement and Mitigation of Gaseous Pollutants from Livestock and Poultry Manure Storage and Treatment Systems - Part 1 (SE-305) 233 (SE-11) Air Quality Modeling (SE-305) 234 (SE-3) Energy Use in Livestock and Poultry Facilities (SE-302, SE-405, SE-31, SE-402, SE-403, SE-404) 235 (SE-19) Dairy Manure Management and Treatment (SE-403, SE-412) 247 (SE-25) Bulk Solids and Biomass Storage Handling (SE-20)	236 (ESH-4) Safety Implications of Agricultural Equipment on Roadways	237 (FPE-17b) Physical and Chemical Properties of Bioresource Products, Byproducts, and Coproducts - Part 2 (FPE-707) 238 (FPE-9) Food Safety Engineering (FPE-703) 239 (FPE-21) Biodiesel Production Distribution and Engine Performance (FPE-709) 240 (FPE-20b) Biomass Feedstock Logistics and Processing Part 2 (FPE-709) 241 (FPE-3) Advances in Nondestructive Testing of Agricultural, Biological, and Food Products (FPE-701)	242 (BE-21a) Challenges in Lignocellulosic Conversion - Fermentation and Microbial Treatment Part 1 (BE-28, FPE-709) 243 (BE-9) Low Impact Development (BE-22, SW-21) 244 (BE-13) Monitoring and Modeling of Pathogens (BE-22, SW-224, SW-21)	245 Assessment Practices for the Academic Community (ED-204) 246 Role of Agricultural and Biological Engineering in the Global Economy (Intl) PANEL DISCUSSION	2:30 PM to 5:00 PM	
	9:30 AM to 12 NOON	301 (PM-1b) Application Technology, Modeling and Deposition Studies (PM-23/6) 302 (PM-14) Automation and New Technologies for Specialty Crops (PM-48, PM-58, PM-54) 303 (PM-20) Development and Performance of Yield Monitors (PM-54, PM-23/7/1)	304 (SW-1) Hydrology and Water Quality with Karst Topography (SW-21) 305 (SW-5) Hydrology and Water Quality Modeling: Advances, Challenges and Directions - Part 2 (SW-21) 306 (SW-16) Erosion Mechanics, Processes and Prediction (SW-223) 307 (SW-21) Nutrient Transport and Water Quality - Part 1 (SW-224)	308 (IET-1) Advanced Computing Methods (IET-217) 309 (IET-16) Spectroscopy and Spectroscopic Sensing (IET-348) 310 (IET-21) Sensors and Controls for Field Machinery (IET-353, PM-58, PM-48) 311 (IET-5) Emerging Information Technologies (IET-254)	312 (SE12b) Measurement and Mitigation of Gaseous Pollutants from Livestock and Poultry Manure Storage and Treatment Systems - Part 2 (SE-305) 313 (SE-24) Heat and Power Generation from Renewable Energy (SE-414, T-11, FPE-709) 314 (SE-14) Charlie Fulhage Memorial Session on Animal Manure Management (SE-40, SE-412, SW-263) INVITED SPEAKERS 315 (SE-02) Environment Control for Animal Facilities (SE-302)		316 (FPE-28a) Biomass Catalytic and Thermochemical Conversion - Part 1 (FPE-709, BE-28) 317 (FPE-14) Food and Bioproducts Process Modeling (FPE-703) 318 (FPE-2) Impact of Physical Properties on End-Use Functionality of Food and Biological Materials (FPE-701) 319 (FPE-22) Bioenergy Sustainability, Green House Emission and Life Cycle Assessment (FPE-709)	320 (BE-21b) Challenges in Lignocellulosic Conversion - Fermentation and Microbial Treatment Part 2 (BE-28, FPE-709) 321 (BE-7) Applications of Hydrologic and Biological Process Models (BE-22)	322 9:00AM Intro to ABET Program Evaluation RAP SESSION (ED-204) 323 10:00AM ABET PEV Refresher Training INVITED SPEAKERS (ED-204)		9:30 AM to 12 NOON
WEDNESDAY, JUNE 23	ASABE AWARDS LUNCHEON - 12:30PM-2:15PM										
	2:30 PM to 5:00 PM	324 (PM-7) Conservation Tillage Systems and Soil Sustainability (PM-42, SW-225, SW-26) 325 (PM-10) On-the-Go Soil Sensors for Precision Agriculture (PM-45, PM-54) 326 (PM-13) Machine Vision Applications for Specialty Crops (PM-48, IET-312)	327 (SW-10) Hydrology, Water Quality and Management of Groundwater, Forest, and Wetland (SW-21, SW-23) 328 (SW-22) Nutrient Transport and Water Quality - Part 2 (SW-224) 329 (SW-32) Micro Irrigation Design and Management (SW-24)		330 (SE-10) Particulate Matter Emission Factors and Abatement Strategies (SE-305) 331 (SE-26) Design, Assembly and Testing of Structures (SE-20) 332 (SE-5) Innovative Energy Strategies and Instrumentation in Controlled Environment (SE-303) 333 Precision Livestock Farming: Defining, Researching, Implementing (SE-20) INVITED SPEAKERS		334 (FPE-28b) Biomass Catalytic and Thermochemical Conversion - Part 2 (FPE-709, BE-28) 335 (FPE-1) Advances in Biocomposites and Bioproducts (FPE-701) 336 (FPE-26) Scale-Up and Processing f Algae for Biofuels (FPE-709) 337 (FPE12) Engineering for Functional Foods and Nutraceuticals (FPE-703) 338 (FPE-19) Ethanol Development Research (FPE-709)	339 (BE-19b) Bioprocessing for Value-Added Products - Part 2 (BE-28) 340 (BE-12) Wetlands Engineering and Restoration (BE-22, SW-21, SW-22, SW-23, SW-26)	341 (ED-210) A Primer to Funding from NIH (National Institutes of Health)	2:30 PM to 5:00 PM	