

Day 1:

8:00 am – 9:30 am	BREAKFAST & OPENING KEYNOTE ADDRESS: Subsurface Data Integration: The Elephant In the Room, <i>Debra Laefer</i>		
	<b>Track 1: Surveying Practice &amp; Future</b>	<b>Track 2: High Accuracy Positioning</b>	<b>Track 3: Applied Surveying</b>
9:35 am – 10:35 am	<b>Technical Session 111: Ethics &amp; Legal Issues</b>	<b>Technical Session 121: Low Distortion Mapping</b>	<b>Technical Session 131: Asset and Infrastructure Mapping</b>
	<ul style="list-style-type: none"> <li>Ethical Issues of Land Surveying Profession, <i>Avinash Prasad</i></li> <li>Unique Legal &amp; Cultural Aspects of Pipeline Surveys, <i>Aaron Grau</i></li> <li>Professional Ethics and the Land Surveyor, <i>Anthony Gregory</i></li> </ul>	<ul style="list-style-type: none"> <li>Towards a Perfect Low-Distortion Map Projection, <i>Thomas Meyer</i></li> <li>Low Distortion Projections for Michigan and beyond, <i>Craig Rollins</i></li> <li>Developing SPCS 2022 Zones with Minimized Distortions: The Alabama Experience, <i>N. W. J. Hazelton</i></li> </ul>	<ul style="list-style-type: none"> <li>UAV-Based Digital Agriculture through a GNSS/INS Structure from Motion Framework, <i>Tian Zhou</i></li> <li>Emerging Surveying Technologies in Transportation Projects, <i>Daniel Kucza</i></li> <li>Utilization of FDM additive manufacturing techniques to aid in visualization and design of infrastructure and other Surveying Engineering related projects, <i>James Decker</i></li> </ul>
10:35 am– 11:05 am	Break		
11:05 am– 12:25 pm	<b>Technical Session 112: Examination &amp; Licensure</b>	<b>Technical Session 122: Future Datum &amp; Geodetic Control</b>	<b>Technical Session 132: Innovation Technologies</b>
	<ul style="list-style-type: none"> <li>Fundamentals of Surveying (FS) Exam Review, <i>Anthony Gregory</i></li> <li>Re-Monumentation Project of the Tri-State Monument (Arizona – Nevada – Utah), <i>Todd Jacobsen</i></li> <li>Changes Ahead for the Licensing of Professional Surveyors, <i>Marlee Walton</i></li> <li>Addressing the Educational Need for Surveyors and Dual Registrants, <i>Carol Morman</i></li> </ul>	<ul style="list-style-type: none"> <li>Grids for the Future: A New Approach for Designing State Plane Coordinate System Zones, <i>Michael Dennis</i></li> <li>Real-Time Kinematic Surveys for Establishing Geodetic Control and OPUS-Projects, <i>Daniel Gillins</i></li> <li>NSRS Modernization: Geometric Reference Frames, <i>Dan Roman</i></li> <li>NSRS Modernization: Geopotential Datum, <i>Dan Roman</i></li> </ul>	<ul style="list-style-type: none"> <li>Hybrid Geospatial Data Approach for the Development of Mapping Deliverables to Support Engineering Design Projects, <i>Matthew Thomas</i></li> <li>Remote Sensing Based Flood Risk Communication Tool, <i>Debra Laefer</i></li> <li>Locating and Mapping Boston’s Underground Facilities in the Late 1800s, <i>Michael Twohig</i></li> <li>Pipeline oil spill hotspots analysis of part of Niger delta area, Nigeria using GIS from 2016 to 2018, <i>Vivian Asogwa</i></li> </ul>
12:25 pm– 01:55 pm	LUNCH & KEYNOTE SPEAKER: Geomatics Engineering: Emerging Technologies and Application Domains, <i>Ayman Habib, Ph.D.</i>		
2:00 pm– 3:20 pm	<b>Technical Session 113: Future of Surveying &amp; Federal Career</b>	<b>Technical Session 123: Historical Perspective &amp; Conventional Techniques</b>	<b>Technical Session 133: Innovation Technologies &amp; GIS Applications II</b>
	<ul style="list-style-type: none"> <li>An Overview of the NGS Regional Geodetic Advisors Program, <i>Jeff Jalbrzikowski</i></li> <li>Beyond Boundaries - the Future of Surveying, <i>Steven Jones</i></li> <li>Navigating Federal Geospatial Career Opportunities, <i>Jeff Jalbrzikowski</i></li> <li>Filling Skill Gaps through the Geo-Spatial Engineering &amp; Technologies (GSET) Program, <i>Humberto Gallegos</i></li> </ul>	<ul style="list-style-type: none"> <li>History of surveying in Indiana, <i>Jim Swift</i></li> <li>History of surveying in Kentucky</li> <li>History of surveying in Ohio, <i>Michael Pniewski</i></li> <li>Astronomic Observations for Azimuth, <i>John Hamilton</i></li> </ul>	<ul style="list-style-type: none"> <li>O-HELP 2.0: Oregon Hazard Explorer for Lifelines program in a 3D web platform, <i>Jaehoon Jung</i></li> <li>A new device for accurate, continuous, and real time terrain mapping, <i>Siggi Finnsson</i></li> <li>Data Set Optimization Study for Random Forest Machine Learning Classification on Aerial Laser Scanning, <i>Debra Laefer</i></li> <li>Artificial Intelligence and UAS data in land surveying, <i>David Morczinek</i></li> </ul>
3:20 pm – 3:50 pm	Break		
3:50 pm – 5:00 pm	PANEL SESSION - Opportunities for Geomatics Engineers within the ASCE Future World Vision		
5:30 pm – 7:00 pm	RECEPTION WITH EXHIBITORS		

NOTE: This is preliminary information and is subject to change. Time zone is ET.

Day 2:

8:00 am – 8:55 am	BREAKFAST & KEYNOTE SPEAKER: The Role of the Surveyor, <i>Gary Kent, P.S.</i>		
9:00 am – 9:30 am	Break		
	<b>Track 4: Surveying Education</b>	<b>Track 5: UAS &amp; Laser Scanning</b>	<b>Track 6: Utility and Hydro Applications</b>
9:30 am – 10:50 am	<b>Technical Session 211: Surveying Education</b>	<b>Technical Session 221: UAVs</b>	<b>Technical Session 231: Documentation, Utility, &amp; Subsurface Surveying</b>
	<ul style="list-style-type: none"> <li>Update on Surveying Education Committee Activities, <i>Marlee Walton</i></li> <li>Proposed Three-Year Geomatics Doctorate Degree Professional Curriculum, <i>William Bowie</i></li> <li>UESI Finals Student Surveying Competition, <i>Allan Ng</i></li> <li>Bachelor’s Degree in Land Surveying, <i>Carol Morman</i></li> </ul>	<ul style="list-style-type: none"> <li>Accuracy of UAV aerial surveys with different configurations, <i>Ahmed Elaksher</i></li> <li>Best Practices for High Definition Mapping using Uncrewed Aerial Systems, <i>Mohamed Mostafa</i></li> <li>Mapping with Unmanned Aerial Systems (UASs), <i>David O’Brien</i></li> </ul>	<ul style="list-style-type: none"> <li>Advancements in Utility Engineering and Survey - 3D Modeling, <i>Michael Picha</i></li> <li>Applied Geomatics To The Study And Management Of Groundwater In The Valley Of Oueme, <i>Jonas Ode</i></li> <li>Digitally Preserving the Ancient City of Volterra, <i>Donald Groesser</i></li> <li>Combining Laser Scanning, UAV &amp; Traditional Survey Technology for Efficient Site Documentation, <i>Kevin Foster</i></li> </ul>
10:50 am – 11:20 am	Break		
11:20 am – 12:20 pm	SPECIAL SESSION: New ASCE Manual of Practice on Surveying and Geomatics Engineering: Principles, Technologies, and Applications, <i>Dan Gillins</i>		
12:20 pm – 2:00 pm	LUNCH & AWARDS CEREMONY		
2:00 pm – 3:20 pm	<b>Technical Session 212: Curricula Modernization</b>	<b>Technical Session 222: Lidar Applications</b>	<b>Technical Session 232: Hydrography &amp; Mapping applications</b>
	<ul style="list-style-type: none"> <li>Incorporating UAS and Geospatial Technologies into Undergraduate Education, <i>William Greenwood</i></li> <li>Design, Construction and Implementation of an Augmented Reality Sandbox for Geospatial Curricula, <i>N. W. J. Hazelton</i></li> <li>Changing the Perception of the Land Surveying and Geomatics Curriculum by Integrating Hands-on Geospatial Technology, <i>Allan Ng</i></li> <li>Modernizing the surveying/ geomatics curriculum to meet current industry needs and distance education quality, <i>Ahmed Elaksher</i></li> </ul>	<ul style="list-style-type: none"> <li>Efficient Extraction and Classification of Complex Pavement Markings from Mobile Laser Data, <i>Jaehoon Jung</i></li> <li>LiDAR-based Mobile Mapping Systems for Monitoring MSE Walls with Textured Precast Concrete Panels, <i>Mohammed Aldosari</i></li> <li>Visualization Technique of Unbalanced Tension in Utility Poles and Cables, <i>Masaki Waki</i></li> <li>Multi-scale Voxelizeation in 3D Point Cloud Processing, <i>Ezra Che</i></li> </ul>	<ul style="list-style-type: none"> <li>Hydrographic Surveying: An Introduction for Engineers and Surveyors, <i>Jeff Jalbrzikowski</i></li> <li>Impact of Different GNSS Solutions and SfM Workflows for UAS Surveying of Shorelines, <i>Michael Starek</i></li> <li>Coastal Environment Mapping using UAV-based LiDAR, <i>Ravi Radhika</i></li> <li>The Use of Imaging and Low-Cost LiDAR Sensors for Mapping Urban and Natural Features, <i>Joshua Carpenter</i></li> </ul>
3:30 pm – 5:00 pm	CLOSING PANEL: Surveying Education and the Need to Fill Workforce Requirements, <i>Allan Ng</i>		

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