



PRELIMINARY TECHNICAL PROGRAM

The information provided in this document is subject to change until a final version is released.

Monday, June 1:

8:00 am – 9:30 am	Breakfast and Opening Keynote Address — Gary Kent		
	Track 1: Surveying Practice and Future	Track 2: High Accuracy Positioning	Track 3: Applied Surveying
9:35 am – 10:50 am	Technical Session 111: Ethics & Legal Issues	Technical Session 121: Low Distortion Mapping	Technical Session 131: Asset and Infrastructure mapping
	<ul style="list-style-type: none"> Ethical Issues of Land Surveying Profession, <i>Avinash Prasad</i> Unique Legal & Cultural Aspects of Pipeline Surveys, <i>Aaron Grau</i> Professional Ethics and the Land Surveyor, <i>Anthony Gregory</i> Changes Ahead for the Licensing of Professional Surveyors, <i>Marlee Walton</i> 	<ul style="list-style-type: none"> Comparing results for four new low-distortion projections, <i>Thomas Meyer</i> Low Distortion Projections for Michigan and beyond, <i>Craig Rollins</i> OHIO Low Distortion Projections, <i>Robert Canter</i> Developing SPCS 2022 Zones with Minimized Distortions: The Alabama Experience, <i>N. W. J. Hazelton</i> 	<ul style="list-style-type: none"> UAV-Based Digital Agriculture through a GNSS/INS Structure from Motion Framework, <i>Tian Zhou</i> Implementing an Asset Management Program that Leverages ROI, <i>Howard Hodder</i> Semantically-rich Semi-automatic Recreation of Pipes Using MATLAB and Dynamo for Industrial Facilities, <i>Patrick Rodrigues</i> RFID – The Smart Way to Enhance the Accuracy of Infrastructure Asset Location & Verification, <i>Kari Campbell</i>
10:50 am - 11:20am	Break		
11:20 am- 12:20 pm	Technical session 112: Examination & preservation	Technical session 122: Future Datum	Technical session 132: Innovation technologies & GIS applications I
	<ul style="list-style-type: none"> Fundamentals of Surveying (FS) Exam Review, <i>Anthony Gregory</i> Locating and mapping Boston's underground facilities in the late 1800s, <i>Michael Twohig</i> Digitally Preserving the Ancient City of Volterra, <i>Donald Groesser</i> 	<ul style="list-style-type: none"> Grids for the Future: A New Approach for Designing State Plane Coordinate System Zones, <i>Michael Dennis</i> An update on NSRS modernization, <i>Dru Smith</i> Updates on the Geopotential Datum, <i>Dan Roman</i> 	<ul style="list-style-type: none"> Hybrid Geospatial Data Approach for the Development of Mapping Deliverables to Support Engineering Design Projects, <i>Matthew Thomas</i> Traversing on Double Lines for Finer Residuals in Early Detection of Structural Deformation, <i>Akajiaku Chukwuocha</i> NSRS Modernization, <i>Galen Scott</i>
12:20 am - 1:45 pm	Lunch & Keynote — Ayman Habib, PHD		
1:45 pm – 3:15 pm	Technical session 113: Future of Surveying & Federal Career	Technical session 123: Geodetic control, GNSS & gravity	Technical session 133: Innovation technologies & GIS applications II
	<ul style="list-style-type: none"> Filling Skill Gaps through the Geo-Spatial Engineering & Technologies (GSET) Program, <i>Humberto Gallegos</i> Proposed Three-Year Geomatics Doctorate Degree Professional Curriculum, <i>William Bowie</i> Beyond Boundaries - the Future of Surveying, <i>Steven Jones</i> Navigating Federal Geospatial Career Opportunities, <i>Jeff Jalbrzikowski</i> 	<ul style="list-style-type: none"> Multi-GNSS Processing Capability at the National Geodetic Survey, <i>Jacob Heck</i> Surveys and Data Processing of Geodetic Technique Co-location Sites, <i>Ryan Hippenstiel</i> Real-Time Kinematic Surveys for Establishing Geodetic Control and OPUS-Projects, <i>Daniel Gillins</i> Preprocessing of Gravity Data from Scintrex CG 6 Gravimeter and Its Quality Assessment, <i>Suraj KC</i> 	<ul style="list-style-type: none"> Geospatially Correct SUE, <i>Ophir Wainer</i> O-HELP 2.0: Oregon Hazard Explorer for Lifelines program in a 3D web platform, <i>Jaehoon Jung</i> Identifying the Risk in Existing Utilities by Implementing Weighted Features, <i>Yeganeh Sadeghi</i> Quality Assessment of Surface Reconstructed from MACS Himalaya Camera Taken at Extreme Environment of Himalaya, <i>Suraj KC</i>
3:15 pm – 3:45 pm	Break		
3:45 pm – 5:00 pm	Panel Session — World Vision ASCE		

Tuesday, June 2:



8:00 am – 9:10 am	Breakfast and Keynote — Debra Laefer		
	Track 1: Surveying Education & History	Track 2: UAS & laser scanning	Track 3: Utility and Hydro Applications
9:15 am – 10:30 am	Technical panel 211: Surveying Education	Technical session 221: UAVs	Technical session 231: Utility and Subsurface Surveying
	<ul style="list-style-type: none"> • Technical panel on surveying education and the need to fill workforce requirements. 	<ul style="list-style-type: none"> • UAS Applications for Aerial Mapping & Utility Surveys, <i>Jason Heywood</i> • Artificial Intelligence and UAS data in land surveying, <i>David Morczinek</i> • Accuracy of UAV aerial surveys with different configuration, <i>Ahmed Elaksher</i> • Arial Prism, <i>Marri Mithilesh</i> 	<ul style="list-style-type: none"> • Subsurface Utility Locating 101: Equipment, Purposes, Theory, Limitations, & Risk Management, <i>Chris LeRoy</i> • Advancements in Subsurface Utility Engineering, <i>Thomas Randall & Kenneth Slaninka</i> • Case Study Engineering Subsurface Utilities - Design, Survey Sub Consultants, and Scoping, <i>Chris LeRoy</i> • Advancements in Utility Engineering and Survey - 3D Modeling, <i>Michael Picha</i>
10:30 am- 11:00 am	Break		
11:00 am– 12:00 pm	Technical session 212: The history of surveying in Indiana, Kentucky, and Ohio	Technical session 222: Laser scanning UAV-based	Technical session 232: Utility and Subsurface Surveying
	<ul style="list-style-type: none"> • History of Surveying in Indiana • History of Surveying in Kentucky • History of Surveying in Ohio 	<ul style="list-style-type: none"> • Combining Laser Scanning, UAV & Traditional Survey Technology for Efficient Site Documentation, <i>Kevin Foster</i> • Coastal Environment Mapping using UAV-based LiDAR • UAS LiDAR - What to expect, <i>Brian Flaherty</i> 	<ul style="list-style-type: none"> • Applied Geomatics To The Study And Management Of Groundwater In The Valley Of Oueme, <i>Jonas ODE</i> • Development of Standard Guidelines for the Collection and Interpretation of Structural Inspection - Underwater Imaging Data, <i>Roy Forsyth</i> • Leaking Localization of Water Distribution System by Artificial Intelligence, <i>Xudong Fan</i>
12:00 am - 1:40 pm	Lunch & Award Ceremony		
1:45 pm – 3:00 pm	Technical session 213: Curricula Modernization	Technical session 223: Lidar Applications	Technical session 233: Hydro & Underwater
	<ul style="list-style-type: none"> • Incorporating UAS and Geospatial Technologies into Undergraduate Education, <i>William Greenwood</i> • Design, Construction and Implementation of an Augmented Reality Sandbox for Geospatial Curricula, <i>N. W. J. Hazelton</i> • Changing the Perception of the Land Surveying and Geomatics Curriculum by Integrating Hands-on Geospatial Technology, <i>Allan Ng</i> • Modernizing the Surveying/Geomatics Curriculum to Meet Current Industry Needs and Distance Education Quality, <i>Ahmed Elaksher</i> 	<ul style="list-style-type: none"> • Mo-norvana: An Efficient Mobile Lidar Data Processing Framework, <i>Erzhuo Che</i> • Efficient Extraction and Classification of Complex Pavement Markings from Mobile Laser Data, <i>Jaehoon Jung</i> • LiDAR-based Mobile Mapping Systems for Monitoring MSE Walls with Textured Precast Concrete Panels, <i>Mohammed Aldosari</i> • Visualization Technique of Unbalanced Tension in Utility Poles and Cables, <i>Masaki Waki</i> 	<ul style="list-style-type: none"> • Water System Infrastructures, <i>Julio Cesar, Ramirez Mendoza</i> • A Methodological Cost-Benefit Comparison of Contemporary Survey Methods for Mapping Hydraulic Features, <i>Jonathon Chester</i> • Hydrographic Surveying: An Introduction for Engineers and Surveyors, <i>Jeff Jalbrzikowski</i> • Mining Spatio-Temporal Data for Decision Support in Complex Systems, <i>Tanmay Vora</i>
3:00 pm – 3:30 pm	Break		
3:30 pm – 5:00 pm	Closing Panel Discussion		