

ASPRS 2024 YEARBOOK

At Geo Week, February 10–12, 2024, Denver, Colorado

Geo Week 2024 brought together a remarkable assembly of professionals from across the globe, with over 3,400 registrants hailing from 45 different countries. The event was a convergence of expertise, innovation, and collaboration in the field of geospatial sciences and technologies.

Key Highlights

Workshops

ASPRS organized eight workshops on February 11, with over 340 registrants. Participants lauded the workshops for their engaging instruction and approachability, with one attendee remarking, “Very well instructed, they were engaged and helped make a complex subject more approachable.”

Sessions and Posters

14 sessions were held during the event, covering a wide range of topics pertinent to the geospatial community. Additionally, the Academic Hub featured multiple poster presentations, showcasing the latest research and advancements in the field.

Committee Meetings

Various committees, regions, and councils convened for in-person meetings, fostering meaningful discussions and collaborations on important industry matters.

Awards Ceremony

The Geo Week Joint Award Ceremony recognized the outstanding contributions of seven ASPRS professionals, who were honored with prestigious awards such as the Estes Memorial Teaching Award, Fellow Awards, Photogrammetric Fairchild Award, Lifetime Achievement Award, and the Outstanding Technical Achievement award.

Annual Business Meeting

At the ASPRS Annual Business Meeting, new officers, including President Bandana Kar, were installed. ASPRS Society Awards and Scholarships were awarded to professionals and students.

Exhibit Hall

The conference boasted a vibrant exhibit hall featuring around 200 exhibitors. Attendees had the opportunity to explore the latest advancements in geospatial technology and services while networking and socializing at the ASPRS booth.

Achievements

- Geo Week 2024 witnessed a significant turnout of professionals from diverse backgrounds, facilitating invaluable knowledge exchange and networking opportunities.
- The workshops, sessions, and poster presentations provided attendees with insights into cutting-edge research and practical applications within the geospatial domain.
- The recognition of outstanding professionals through awards and the installation of new officers underscored the commitment of ASPRS to honor excellence and leadership within the community.

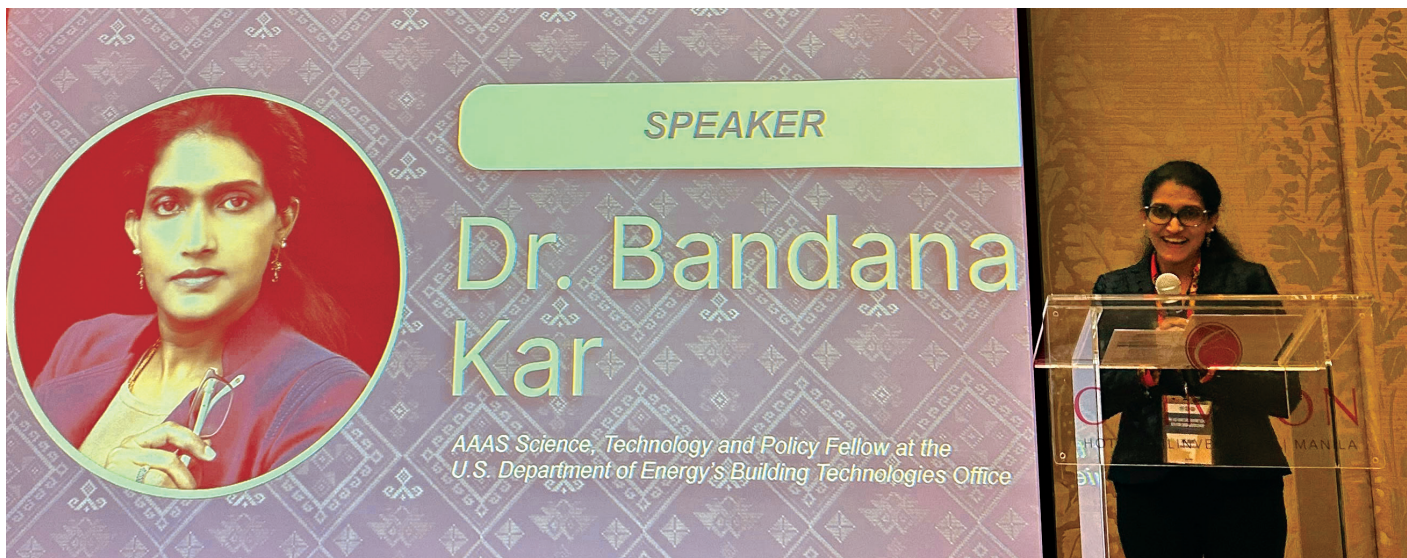
Geo Week 2024 was a resounding success, thanks to the collective efforts of organizers, sponsors, speakers, and attendees. The event served as a premier platform for advancing the field of geospatial sciences and technologies, fostering collaboration, and celebrating achievements. With such a remarkable turnout and impactful activities, Geo Week continues to be a cornerstone event for the global geospatial community.



ASPRS Presidential Address Leading Next Generation Geospatial Science and Technology

March 12, 2024

Bandana Kar, PhD



I am honored to serve as this year's (2024) ASPRS President. ASPRS has been one of my professional societies for the past 20 years. When I joined the society as a graduate student in early 2000, the geospatial science and technology landscape looked quite different. Many technologies that we now take for granted, such as having GNSS and lidar on our smart phones along with stereoscopic cameras to generate 3D pictures and videos in real-time, drones to capture imagery at any given time for any purpose, high resolution imagery to detect individual buildings, cloud and edge computing to deliver real-time solutions to end-users, did not exist. As Claire Rutkowski mentioned in her keynote at the 2024 GeoWeek Conference, we are at a tipping point where convergence of these technologies is possible to address societal challenges through the lens of disciplinary intersectionality. With the emergence of Industrial Revolutions 4.0 and 5.0, ASPRS, a leader in geospatial science and technology since its inception in 1934, is well situated to bring together academic, industry, and government partners to lead us on the trajectory of next generation geospatial science and technology growth.

For the society to succeed, we the members have to make a collective effort to invest in the next generation of professionals and researchers, which has always been a focus of ASPRS. Unlike in the past, students now are more interested and driven to develop holistic solutions to societal challenges, from climate extremes, to environmental justice, energy security and community resilience. The leaders of Student Advisory Council (SAC) and Early Career Professionals Council (ECPC) have done an exceptional

job in attracting and providing young talents a platform to connect with experienced researchers. Given that the society gives awards and scholarships to promote excellence among students and early-career researchers, one of my primary goals is to work with SAC and ECPC to increase student engagement within ASPRS, thereby broadening our member base. While creating new student chapters will meet this goal, it is equally important to expand networking, mentoring, education and outreach activities by offering microlearning modules to assist students with job search, interview, and professional development as they transition into early-career professionals. We should also build on the partnerships with universities and university-led programs, such as AmericaView, to attract students.

The divisions are the intellectual pillars of the society. While the divisions have been successful in developing standards and best practices to ensure convergence of technologies, it is essential for the divisions to come together via interdisciplinary working groups and efforts. The regional chapters and the Sustaining Members Council (SMC) are also crucial for the success of the society as they provide a platform for members from different sectors and agencies. It is imperative to work with these chapters and existing councils to develop a cohesive message for the members and streamline the certifications to meet member needs as they contribute to workforce. Another priority for me is to connect with Regional Officers' Council and SMC to determine activities that will promote interaction among these entities as well as recruitment and retention of members beyond early-career.

We should not forget *Photogrammetric Engineering and Remote Sensing (PE&RS)*, the flagship journal of the society, which is also a top peer-reviewed journal. As the journal transitions into open-access to keep pace with the evolving publication model, we should take note of the PE&RS awards that recognizes and provides monetary awards to excellent scientific research. Considering that the awards are given to researchers irrespective of their affiliation with the society, we should connect with these researchers and invite them to be part of ASPRS.

ASPRS has evolved over the years to accommodate changes in the geospatial science and technology domain. While in mid-2000 ASPRS had few female role models, now the society includes more female members and leaders. In the past decade, the society had 4 female presidents including myself. The current distribution of female members may not seem significant, but the society has created the DEI Committee that I was lucky enough to lead with the past president Christopher Parish. The intent of the committee is to work with divisions, councils and regional chapters to increase diversity and enable the path to leadership. Of course, being a leader requires commitment and involvement. Throughout my journey since my graduate student days, I have been engaged in society activities starting with organizing sessions and reviewing abstracts for annual meetings before I became the GIS Division Director almost

a decade ago. I invite you to contribute by leading events within your local ASPRS region by volunteering at conferences or by joining the monthly Brainstorming-to-Action meetings. ASPRS provides opportunities for members to be involved in different activities, thereby laying a path to leadership. We should build on these benefits and get involved in the society to make the vision of what future ASPRS should look like a reality.

I would like to express my gratitude to colleagues and past presidents – Lorraine Amanda, Dr. Chris Parish, and Dr. Jason Stoker for their leadership over the years. My sincere thanks to my colleagues on the Board of Directors, Committee and Council Chairs, Division Directors, Region leaders, ASPRS Executive Director - Karen Schuckman, Editor-in-Chief and Assistant Director of Publications of *PE&RS*- Alper Yilmaz and Rae Kelley, and Digital Publications Manager - Matthew Austin, for their contributions to ASPRS. I would like to thank all members of ASPRS for your participation in this exceptional organization and for giving me the opportunity to represent you as the 2024 ASPRS President! Last but not least, I would like to thank Michael Hodgson, John Jensen, Marguerite Madden, Anne Hillyer, Rebecca Morton, and J. B. Sharma and many others who I have looked up to during my journey so far within the society.



AWARDS AND SCHOLARSHIPS

Through the ASPRS Foundation, ASPRS provides support to undergraduate and graduate student members of the society through their Scholarship program, and recognizes professionals who are contributors to the field of spatial and image sciences. Awards for Outstanding Papers, Professional Achievement, and Service activities

are determined by committee selection; scholarships and academic awards are also determined by committee selection but are chosen from current applications. A comprehensive review of the awards program is available on the ASPRS webpage: <https://www.asprs.org/education/asprs-awards-and-scholarships>.

ASPRS AWARDS

ASPRS Fellow Award

2024 recipients: Joseph Messina, Becky Morton, Amar Nayegandhi, Greg Stensaas

Joseph Messina

Dr. Joseph Messina has served as Dean of the College of Arts & Sciences at the University of Alabama since 2019. Messina served in the U.S. Army working with early GIS and TACFIRE systems in the Field Artillery. After his Honorable Discharge, he earned a BA in Biology (1992) and an MS in Geographic and Cartographic Sciences (1994) from George Mason University. Messina was subsequently employed as a remote sensing scientist at the SPOT Image Corporation, serving as part of the working group that led to the development and release of the GeoTIFF data format. Messina developed and published natural color composite algorithms adopted by all major remote sensing software companies and was the first European Space Agency RADARSAT product manager for North America. Returning to academia, Messina completed his Ph.D. at UNC-Chapel Hill (2001) and then became an Assistant Professor at Michigan State University in the Department of Geography and at the Center for Global Change and Earth Observations. Messina proceeded through the academic ranks to Professor, ultimately becoming the Associate Dean of Research, and then Assistant Vice-President of Research at MSU before his shift to Alabama. He has been funded by a range of agencies and organizations including NASA, the National Science Foundation, National Institutes of Health, U.S. Agency for International Development, U.S. Department of Defense and the Bill & Melinda Gates Foundation. He has authored influential papers, including in *PE&RS*, on drug war remote sensing, land-use/land-cover change, climate change and vector-borne disease, and remote sensing methods. Messina has taught GIS, remote sensing, and geocomputation to undergraduate and graduate students with recognition for this teaching ability coming through accolades such as the AT&T technology enhancement award for classroom innovation in geocomputation. His 25+ advisees have pursued careers in the military, intelligence communities, higher education, and private sector.

From 2003–2005 Messina served on the ASPRS National Committee on Membership, which created an initiative and materials for a national recruiting campaign. He traveled throughout the Great Lakes region visiting universities to promote the formation of ASPRS student chapters, including reactivating and serving as advisor to the long-dormant Michigan State University ASPRS student chapter. Messina has been an active author and reviewer for *PE&RS*, has served as co-editor of a special issue for the journal, and has organized and chaired sessions at the ASPRS Annual Meetings.

Rebecca A. “Becky” Morton

Rebecca A. (Becky) Morton is currently President and Chief Executive Officer (CEO) of GeoWing Mapping, Inc., Richmond, California. Morton attended the University of Arkansas in Fayetteville where she earned a BS degree in Psychology in 1979. She subsequently undertook additional training in computer science, surveying, and mapping at the South Dakota School of Mines and Technology. Morton has received multiple awards from ASPRS including Presidential Citations (2009, 2011), Outstanding Service Award (2013), and the Claude Birdseye Award (2018).

Morton has practiced photogrammetry for 30+ years through her employment at Horizons, EarthData, Towill, and GeoWing Mapping, beginning as a Programmer/Analyst responsible for systems integration and the translation of mapping data followed by positions as Orthophoto Systems Manager, Director of Business Development, Regional Manager, and Senior Program Director. Morton also established and ran a small GIS company, RAMCad, for 8+ years to provide historical georeferenced imagery to the U.S. Army Corps of Engineers and GIS application development services for numerous clients. Most recently, she co-founded GeoWing Mapping, Inc., a small aerial mapping firm that applies both manned and unmanned aircraft systems to acquire data for its photogrammetric operations. Morton is certified by ASPRS as a Photogrammetrist and as a Mapping Scientist GIS/LIS.

Morton has been an active member of ASPRS since 1995, providing service to the Society at the Regional and National levels, including serving as the ASPRS National President from 2017-18. Morton served on the ASPRS Board of Directors from 2008-2010 and 2012-2018, and was a member of the ASPRS Executive Committee from 2012-2018. She currently serves as a Trustee for the ASPRS Foundation and is a Regional Director of the Pacific Southwest Region. Morton has been active on several ASPRS committees including the Licensure Exam Writing Committee, Evaluation for Certification Committee, the Kenneth J. Osborn Memorial Scholarship Committee, and the Lidar Committee. From 2006-2010, she served as the Director of the Photogrammetric Applications Division, and from 2010-2014, she served as Director of the Professional Practice Division. Under her direction, the Society developed standards for lidar data, and for mapping accuracy. In 2014, she was appointed to Chair the ASPRS Unmanned Aircraft Systems (UAS) Task Force, which led to the formation of the UAS Division. She also served on several ASPRS procurement guideline committees, culminating in the publication of the ASPRS Procurement Guidelines for Geospatial Mapping Products and Services in 2014.

In addition to her ASPRS leadership responsibilities, she has served as Membership Chair for the Oakland-Piedmont (California) Branch of the American Association of University Women. From 2008-2010, she served as Treasurer for the Bay Area Automated Mapping Association (BAAMA), the local URISA Chapter. Morton served as conference chair for the UAS MAPPING RENO symposia held in 2014 and 2015, in Reno, NV.

Amar Nayegandhi

Mr. Amar Nayegandhi is Senior Vice President – Geospatial and Technology Solutions and Technology Market Segment Leader at Dewberry. Nayegandhi is an expert in topographic and bathymetric lidar data acquisition and processing and has over 23 years of experience in the research and private sector. He has developed original data processing algorithms and software for airborne lidar sensors, and processed and analyzed data from terrestrial, airborne and satellite instruments. Nayegandhi has presented research at more than 100 international conferences and technical workshops, as well as authoring 17 refereed manuscripts in professional publications and more than 65 reports for the U.S. Geological Survey. Nayegandhi was the primary author of a report evaluating new lidar technologies—Geiger Mode and Single Photon—for USGS’s 3D Elevation Program and co-edited the *ASPRS Digital Elevation Model Technologies and Applications: The DEM User’s Manual*, 3rd Edition, authoring the chapters on Airborne Topographic Lidar and Airborne Lidar Bathymetry. He also co-authored the USACE EM 1110-1-1000, *Photogrammetric and Lidar Mapping*.

Prior to joining Dewberry, Nayegandhi was a Project Manager and Remote Sensing Applications Developer with Jacobs Technology, contracted to the USGS Coastal and Marine Geology Program. From 2001–2011, he managed operations and was involved in R&D of the NASA/USGS EAARL sensor for the USGS Coastal Program. In 2011–2012, he developed Dewberry’s Lidar Processor (DLP) to process airborne bathymetry data acquired with the Riegl VQ820G, which included correcting for refraction of the green lidar signal as it traversed through the water column using water surface returns from near-infrared lidar.

Nayegandhi earned a Bachelor’s degree in Electrical Engineering from the University of Mumbai (1998) and a Master’s degree in Computer Science from the University of South Florida (2001). He is an ASPRS Certified Photogrammetrist, Certified Mapping Scientist – Remote Sensing, and Geographic Information Systems Professional (GISP). Nayegandhi has been an active member of ASPRS since 2005, served as the Director/Assistant Director of the ASPRS Lidar Division (2016-2020), and he co-authored the LAS domain profile for topobathy lidar sensors. Nayegandhi currently serves on the MAPPS Board of Directors.

Greg Stensaas

Greg Stensaas has worked with remote sensing systems and data for over 38 years, including service with the United States Geological Survey (USGS) Earth Resources Observation and Science (EROS) Cal/Val Center of Excellence (ECCOE) and the Landsat Program, NASA Earth Observation System Distributed Information System (EOSDIS), and U.S. Army and Air Force. Stensaas spent 24 years at the EROS Center in Sioux Falls, SD. He was project manager for the EROS ECCOE, Requirements Capabilities & Analysis for Earth Observation, and Remote Sensing Technologies projects where he was responsible for understanding system and sensor capabilities, user requirements, system/product characterization, and camera calibration and managing the USGS Optical Science Laboratory and USGS Camera Calibration Facility. Stensaas gained extensive system engineering, program management, and information systems experience through systems exploitation, development, simulation, and test experience as an electronics engineer and operations research analyst for the U.S. Army and the Air Force, Raytheon principal engineer for the NASA Earth Observing System Distributed Active Archive Center, and systems engineer for the USGS Landsat Data Continuity Mission and the Satellite Cross-calibration Radiometer.

Stensaas developed many procedures including establishing digital camera quality assurance and camera calibration processes for USGS and ASPRS, led the development of USGS and ASPRS Lidar Data Quality Guidelines, the ASPRS in Situ Calibration Guidelines, and the DOI UAS Calibration Guidelines. Stensaas is currently the ASPRS Standard Committee Chair and has served three times as the ASPRS Primary Data Acquisition Division Director (PDAD). Stensaas is currently working on revising the ASPRS Ten-Year Remote Sensing Industry Forecast. He was also the USGS lead and co-chair of the Joint Agency Commercial Imagery Evaluation program for 18 years. Stensaas also served as chair of the Federal Inter-Agency Digital Imagery Working Group, the Chair of the Committee on Earth Observation (CEOS) Working Group on Calibration and Validation (and helped establish the Quality Assurance for Earth Observation Strategy for CEOS and the Group on Earth Observation. Stensaas was a member of the National Digital Orthoimagery Program and past chair of the Technical Management Subcommittee.

Stensaas has a BS in Mechanical Engineering from South Dakota State University and has been in Engineering and Information Technology post graduate programs at the University of Nebraska–Lincoln and Dakota State University.

Purpose: Started in 1992, the designation of Fellow is conferred on Society members who have been active for a total of at least ten years and who have performed exceptional service in advancing the science and use of the mapping sciences and related disciplines. It is awarded for professional excellence and for service to the Society.

Donor: ASPRS. The ASPRS Fellow Award includes a lapel pin and a certificate.

The Estes Memorial Teaching Award

2024 recipient: Dr. L. Monika Moskal

Dr. L. Monika Moskal is the recipient of the Estes Memorial Teaching Award to recognize her passion for teaching and training geospatial concepts, theory and applications; the excellent quality of her student mentorship; and her involvement of students in research on geospatial analysis and geovisualization of forest resources. Moskal brings an energy to the classroom, laboratory and field that is contagious.

Moskal earned a BS degree in Geography with Honors, from the University of Waterloo, an MS in Remote Sensing and GIS from the University of Calgary, and a PhD in Geography from the University of Kansas in 2005. Moskal began her teaching career in 2003 in the Department of Geography, Geology and Planning at Missouri State University. She moved to the University of Washington in 2006 as an Assistant Professor in the Department of Geography, attaining the rank of Associate Professor in 2013 and full Professor in 2020. She is the Director of the Precision Forestry Cooperative (2013-present) and the lead Principal Investigator (PI) of the Remote Sensing and Geospatial Analysis Laboratory (2006-present) at the University of Washington.

Moskal has developed several geospatial courses at UW including “Lidar Remote Sensing”, “Remote Sensing of Environment” and “Digital Earth” with average enrollments each year of approximately 50, 100 and 30 students, respectively. She also regularly co-teaches “Wildlife Conservation” in the Pacific Northwest Ecosystems and Environmental and Resource Assessment programs, and developed a workshop, “Impacts of Climate Change on the Pacific Northwest” held in 2019 and 2023.

Moskal’s research funding totals over \$23.5M, serving as PI for over \$7.9M of these externally-funded research projects. Throughout her career Moskal has mentored students at undergraduate, graduate and post-graduate levels in all aspects of research. For example, she obtained Research Experience for Undergraduates grants from the UW Stand Management Cooperative and National Science Foundation to support students working with airborne and terrestrial lidar to monitor and visualize Leaf Area Index changes in the forests of the Pacific Northwest. Since 2003, she has

supervised nine Postdoctoral Fellows, served as Chair or Co-Chair for 19 MS and 15 PhD students, served on 36 graduate committees and supervised 27 undergraduate projects. Her students have explored research including thermal remote sensing of forests, NASA WetCarbon research, lidar-based forest moisture metrics, wetland change and policy patterns, monitoring the impacts of climate change on wetland dynamics, and many more. Notably, the majority of her 70+ peer-review journal publications are authored by students supported by her research grants.

In 2021, she was selected as a Fellow in the Wilburforce Leaders in Conservation Science Program, and in 2019, she received the UW School of Environmental and Forest Sciences Director’s Award for Service to the School. She was nominated twice (2009 and 2018) for the UW Marsha L. Landolt Distinguished Graduate Mentor Award and recognized in 2009 by UW for her Exemplary Contribution to the College in Faculty Teaching, College of Forest Resources. The same year she received the ASPRS Ford Bartlett Membership Award for her promotion of student membership in ASPRS. Her service to UW students includes Faculty Representative on the Graduate School Council since 2021, and since 2006, faculty advisor to the student UW Geospatial Club. Dr. Moskal has always been extremely active in professional societies, both national and international. Her mentorship extends to professional development of her students and she regularly uses her research funds to support their travel to conferences to present their joint research.

Purpose: To recognize individual achievement in the promotion of remote sensing and geographic information systems (GIS) technology and applications through educational efforts.

Donor: ASPRS with funding provided by the ASPRS Foundation and ASPRS. The Estes Memorial Teaching Award is made in honor of Professor John E. (“Jack”) Estes, teacher, mentor, scientist, and friend of ASPRS. The award consists of a presentation plaque and a cash award of \$3,000.

ASPRS Photogrammetric Award (Fairchild)

2024 recipient: Dr. Jason Stoker

Dr. Jason Stoker is a United States Geological Survey (USGS) Physical Scientist for the National Geospatial Program. Dr. Stoker earned his Ph.D. in Geospatial Science and Engineering from South Dakota State University, and MS and BS degrees from Colorado State University in Geomatics and Natural Resources Management, respectively. He is currently the Elevation Science and Applications Lead for the National Geospatial Program and is the Federal Geospatial Data Committee National Geospatial Data Asset Data Manager for four national elevation theme datasets: lidar point cloud, 1 m digital elevation models (DEMs), 1/3rd arc-second DEMs, and 5 m Alaska DEMs. Stoker oversees strategic planning, development and coordination of the 3D Elevation Program (3DEP) and related data, tools, and services. Stoker provides technical expertise, prepares roadmaps and plans for elevation products and services, and helps determine the long-term vision for 3DEP products and services.

Stoker has worked at the USGS for over 21 years. Prior to his current position, Stoker spent twelve years leading the lidar research and development activities at USGS EROS Center in Sioux Falls, South Dakota. He was the founder of the USGS Center for Lidar Information Coordination and Knowledge. While working on his master's degree, Stoker spent three years working as a biologist for the United States Forest Service. In this role, Stoker performed geospatial analyses for research on historic fire regimes in the Colorado Front Range.

Stoker is a former Director of the Lidar Division of ASPRS and Past President of ASPRS. He has published widely on the accuracy, consistency, and application of three-dimensional topographic models including articles in *Remote Sensing of Environment* and *MDPI Remote Sensing*.

Purpose: The Photogrammetric Fairchild Award is designed to stimulate the development of the art of aerial photogrammetry in the United States. Practicability is the essence of the Award and is the basis for the review of all candidates.

Donor: ASPRS. The award consists of an engraved presentation plaque.

The ASPRS Outstanding Technical Achievement Award

2024 recipient: Dr. Gerald Mader

Dr. Gerald Mader received his Ph.D. in astronomy from the University of Maryland in 1975. He served as the Chief of the Geosciences Research Division at the National Geodetic Survey (NGS), National Oceanic and Atmospheric Administration (NOAA) in Silver Spring, Maryland. His research focused on improving accuracy using global navigation satellite system (GNSS) data. Mader receives this award in recognition of his leadership in creating and implementing the Online Positioning User Service (OPUS) at NOAA/NGS. OPUS is a free, web-based tool providing GPS/GNSS users rapid access to the National Spatial Reference System (NSRS). Three-dimensional, centimeter-level accuracies are provided within minutes of data submittal to OPUS. OPUS made a major and immediate impact on the surveying, mapping, and remote sensing communities when first introduced and remains a widely used and popular service for federal, state, local, and commercial professionals. The consistent geodetic control provided by OPUS is the foundation for georeferencing a wide variety of essential mapping, surveying and engineering applications. OPUS also allows users to preserve their results in an on-line database where they can be shared and preserved for temporal monitoring. Since Mader introduced OPUS in 2000, many millions of positions have been and continue to be computed for many thousands of users; a clear indication of this important tool's impact.

Mader was a cofounder of the International GNSS Service and developer of the NGS antenna calibration program. He wrote software to support precise static and kinematic positioning. Mader is also coauthor of the original Receiver Independent Exchange (RINEX) format, which is a data interchange format that is the industry standard for raw GNSS data.

Purpose: This grant is designed to reward the developer[s] of a specific breakthrough technology that causes quantum advances in the practice of photogrammetry, remote sensing or geographic information systems in the United States.

Donor: In 2011, the ASPRS Foundation received a generous individual donation from Lifetime Achievement Awardee and ASPRS Fellow Clifford W. Greve to endow a new Outstanding Technical Achievement Award. The Award was first given in 2012 and is fully endowed at the \$8,000 level. This Award consists of a silver presentation plaque mounted on a wood panel and a check for \$8,000.

The ASPRS Lifetime Achievement Award

2024 recipient: Dr. Charles Toth

Dr. Charles Toth is a research professor in the Department of Civil, Environmental, and Geodetic Engineering at The Ohio State University, where he serves as co-director of the Satellite Positioning and Inertial Navigation (SPIN) Laboratory. Toth was the key architect of the concept development and implementation of the first mobile mapping system (MMS), one of the first civilian applications of GPS. He is considered one of the founding fathers of MMS and is recognized worldwide for his contributions for advancing MMS technology and its applications. Later, he led the OSU team in the groundbreaking project Airborne Integrated Mapping System (AIMS™), which delivered a first in the world fully digital directly georeferenced high-accuracy airborne mapping system prototype based on tight integration of GPS and inertial navigation unit (IMU) data. Subsequently, Toth led significant research effort on direct georeferencing of remote sensing platforms, introducing GPS/IMU based sensor orientation into the mapping community, and is generally credited with coining the terms “direct and indirect georeferencing.”

Toth is an ASPRS Fellow, a Fellow of the International Society of Photogrammetry and Remote Sensing (ISPRS), and a Fellow of the Institute of Navigation (ION). He received an *Honorary Doctorate* from the Budapest University of Technology and Economics and was the recipient of the ASPRS Photogrammetric Award (Fairchild) award in 2009. He is a Past President of ASPRS and has a long record of serving both ASPRS and ISPRS. Toth served as Director of the Photogrammetric Applications Division and was active in the leadership of the Eastern Great Lakes Region. He served ISPRS as Vice President and has previously served as Chair and Co-chair of various ISPRS working groups.

The ASPRS Lifetime Achievement Award (formerly the Honorary Lifetime Achievement Award and the Honorary Member Award) is the highest award an ASPRS member can receive, and there are only 25 living Lifetime Achievement Awardees of the Society at any given time. Candidates are chosen by a Nominating Committee made up of the past five recipients of the award and chaired by the most recent recipient.

Purpose: Initiated in 1937, this life-time award is given in recognition of individuals who have rendered distinguished service to ASPRS and/or who have attained distinction in advancing the science and use of the geospatial information sciences. It is awarded for professional excellence and for at least 20 years of service to ASPRS and consists of a plaque and a certificate.

Donor: ASPRS

The International Educational Literature Award (IELA)

Not awarded this year

Purpose: to improve the quantity and quality of the literature in the library of the recipient Institution that deals with the mapping sciences (i.e., photogrammetry, remote sensing, GIS, and related disciplines).

Donor: ASPRS. The Award consists of the following: A set of manuals published by ASPRS; A five-year e-subscription to *Photogrammetric Engineering & Remote Sensing*; Proceedings of the annual conference for a five-year period.

George E. Brown, Jr. Congressional Honor Award

Not awarded this year

Purpose: This award was established in honor of Congressman George E. Brown, Jr., and the contributions he made to advance the benefits of imagery and geospatial information to society. The award is given periodically to recognize members of the U.S. Congress whose leadership and personal efforts have advanced the science, engineering, application, education, and commerce of imaging and geospatial information.

Donor: ASPRS

ASPRS Presidential Citations

Danielle Blanch

For support of the Certification program

Yuki Day

For support of headquarters operations

Ken Meme

For supporting ASPRS involvement over the past 23 years at both the Regional and National level

Ben Wilkinson

For supporting the society through meritorious service in preparing Operating Procedures for the Photogrammetric Applications Division of ASPRS

Purpose: First awarded in 1992, Presidential Citations are presented by the ASPRS President to members of ASPRS and other societies, family members, and friends in recognition of special, personal, and meritorious contributions to the operation or advancement of the Society and its interests during the presidential year.

Donor: ASPRS. The Presidential Citation is a certificate.



(L-R) Lorraine Amenda, Yuki Day, Brian Young accepting on behalf of Ken Meme, and Ben Wilkinson.

ASPRS Outstanding Service Award

Oscar Duran

For leading reorganization of the Student Advisory Council.

Qassim Abdullah, Colin Lee, Riadh Munjy,
Josh Nimetz, Michael Zoltek

For serving on the Standards Revision Working Group that developed the ASPRS Positional Accuracy Standard for Digital Geospatial Data, Edition 2, V1 - August 2023

David Day, Nora Csanyi May, Srini Dharmapuri,
Sagar Deshpande, Jim Gillis, Jacob Lopez

For leading a Positional Accuracy Standards Addenda Working Group.



(L-R) Lorraine Amenda and Brian Young accepting on behalf of Oscar Duran.



(L-R) Lorraine Amenda, Qassim Abdullah, Michael Zoltek, Colin Lee, and Josh Nimetz.



(L-R) Lorraine Amenda, Nora May, David Day, Srini Dharmapuri, and Jim Gillis.

ASPRS Outstanding Service Award (continued)

Matt Bethel, Maurice Elliot, John Erickson, Martin Flood, Jamie Gillis*, Ayman Habib, Azar Ibrahim, Kyle Ince*, Jeff Irwin*, Claire Kiedrowski, David Kuxhausen*, Leo Z. Liu, Charles Mondello, Mohamed Mostafa, Christopher E. Parrish, Thomas Prescott, Yuri Raizman, Harold Rempel, Bahram Salehi, Thom S. Salter, Ajit Sampath, Ethan Schreuder, Clay Smith, Ravi Soneja, Manya Waggoner, Michael Zarlengo*

For serving on a Positional Accuracy Standards Addenda Working Group

*Note: Addenda Working Group Awardees recognized in 2023.



Front row: (L-R) Mohamed Mostafa, Anthony Garetto accepting on behalf of Yuri Raizman, Matt Bethel, Lorraine Amenda, Claire Kiedrowski, Clay Smith, Bahram Salehi, and Qassim Abdullah accepting on behalf of Azar Ibrahim. Back row: (L-R) Leo Liu, Ajit Sampath, Martin Flood, Ravi Soneja, Chris Parrish, Harold Rempel, Ethan Schreuder

Purpose: Established in 1991, The Outstanding Service Award is given in recognition of outstanding and unusual efforts in helping ASPRS develop and carry out its program over a sustained period. Recipients have performed outstanding service at the chapter, regional, or national level. Awardees' service includes any activities, including professional, that have helped the Society achieve its goals and objectives.

Donor: ASPRS. The Outstanding Service Award consists of a plaque or certificate.

Region Awards

Region of the Year

- 1st Place: **Pacific Southwest Region**
- 2nd Place: **Florida Region**
- 3rd Place: **Rocky Mountain Region**
- Honorable Mention: **Gulf South Region**



(L-R) Lorraine Amenda, Eric Albanese, Rebecca Morton, Alan Mikuni, and Greg Saunders.

Region Community Page of the Year

- 1st Place: **Gulf South Region**
- 2nd Place: **Rocky Mountain Region**
- 3rd Place: **Pacific Southwest Region**
- Honorable Mention: **Northeastern Region**



(L-R) Lorraine Amenda and Rebecca Capps.

Roger Hoffer Membership Award

Honorable Mention:

- Balaji Ramachandran
- Karen Schuckman



(L-R) Lorraine Amenda and Karen Schuckman.

Purpose: First awarded in 1968 as the ASPRS Ford Bartlett Membership Award (which was originally sponsored by the firm of Lockwood, Kessler, and Bartlett, Inc.) to honor members for actively promoting membership in ASPRS. This award now marks the exceptional efforts of ASPRS Past President Roger Hoffer in managing the Membership Committee and recruiting hundreds of student members.

Donor: ASPRS. A member is eligible to receive the Award after sponsoring ten or more members in one year. Each recipient receives a hand-engrossed certificate and a one-year membership in the Society. An Honorable Mention is awarded to those who sponsor at least five new members.

OUTSTANDING PAPER AWARDS

The Esri Award for Best Scientific Paper in GIS

1st Place

Linfeng Wu, Linfeng Wang, Huiqing Wang for “A Lightweight Conditional Convolutional Neural Network for Hyperspectral Image Classification”, *PE&RS*, 89(7): 413-423.

2nd Place

Daiwei Zhang, Bo Xu, Han Hu, Qing Zhu, Qiang Wang, Xuming Ge, Min Chen, Yan Zhou for “Spherical Hough Transform for Robust Line Detection Toward a 2D–3D Integrated Mobile Mapping System.” *PE&RS*, 89(5): 311-320.

3rd Place

Yanis Marchand, Laurent Caraffa, Raphael Sulzer, Emmanuel Clédat, and Bruno Vallet for “Evaluating Surface Mesh Reconstruction Using Real Data.” *PE&RS*, 89(10): 625–638.

Purpose: Established in 1991, the fully endowed Esri Award honors individuals who publish papers of scientific merit that advance our knowledge about GIS technology.

Donor: Esri, Inc. through the ASPRS Foundation. The First-Place award includes a cash award of \$1,500 and a certificate; Second Place is a cash award of \$900 and a certificate; Third Place is a cash award of \$600 and a certificate.

John I. Davidson President’s Award for Practical Papers

1st Place

Yunus Kaya, Halil İbrahim Şenol, Abdurahman Yasin Yiğit, Murat Yakar for “Car Detection from Very High-Resolution UAV Images Using Deep Learning Algorithms.” *PE&RS* 89(2): 117-123.

2nd Place

Jiaxin Xu, Qiao Zhang, Yu Liu, Mengting Zheng for “Small Object Detection in Remote Sensing Images Based on Window Self-Attention Mechanism.” *PE&RS*, 89(8): 489-497.

3rd Place

Yueming Sun, Jinlong Chen, XiaoHuang, Hongsheng Zhang for “Multi-Level Perceptual Network for Urban Building Extraction from High-Resolution Remote Sensing Images.” *PE&RS*, 89(7): 427-434.

Purpose: The John I. Davidson President’s Award for Practical Papers was established in 1979 to encourage and commend individuals who publish papers of practical or applied value in *PE&RS*.

Donor: The ASPRS Foundation in memory of ASPRS Past President John I. Davidson. The First-Place award includes a cash award of \$1,000 and a certificate; Second Place is a cash award of \$600 and a certificate; Third Place is a cash award of \$400 and a certificate.

Talbert Abrams Award

Grand Award

Forrest Corcoran, Christopher E. Parrish for “DORSL-FIN: A Self-supervised Neural Network for Recovering Missing Bathymetry from ICESat-2.” *PE&RS* 89(9): 561-575.



(L-R) Bandana Kar, Forrest Corcoran, and Christopher E. Parrish

Purpose: The Talbert Abrams Award was established in 1945 to encourage the authorship and recording of current, historical, engineering, and scientific developments in photogrammetry. The Award is determined from papers published in the *Photogrammetric Engineering and Remote Sensing (PE&RS)* journal.

Donor: The ASPRS Foundation. The award consists of a certificate and a check for \$4,000 for the Grand Award, and a certificate for First and Second Honorable Mentions.

SCHOLARSHIPS

Robert E. Altenhofen Memorial Scholarship

2024 recipient: Hamdy Elsayed

Hamdy Elsayed has recently completed a Ph.D. in Geomatics Engineering from Toronto Metropolitan University and is working for Teledyne Geospatial. He had previously received an M.Sc. (with Distinction) in Information Technology Business Management from the British University in Dubai and B.Sc. (with Honors) in Electrical Engineering from Alexandria University. His research has focused on two areas: dynamic lidar mapping and indoor mapping. Elsayed's research in dynamic lidar mapping focused on capturing data in motion to expand applications in urban planning, environmental monitoring, and infrastructure management. His research in indoor mapping sought to identify cost-effective and efficient solutions, particularly in GNSS-denied environments. Through his research Elsayed hopes to transform the way geospatial professionals collect and utilize data, making it more accessible and versatile.

Purpose: First given in 1986, the Robert E. Altenhofen Memorial Scholarship is intended to encourage and commend college students who display exceptional interest and ability in the theoretical aspects of photogrammetry.

Donor: The ASPRS Foundation. This award was originally established by Mrs. Helen Altenhofen as a memorial to her husband, Robert E. Altenhofen, past president of ASPRS. He was an outstanding practitioner of photogrammetry and made notable contributions to mathematical aspects of the science. The Altenhofen Scholarship consists of a certificate, a check for \$2,000, and a one-year membership renewal in the Society.



(L-R) Bandana Kar and Hamdy Elsayed

Abraham Anson Memorial Scholarship

2024 recipient: Susanna Eng

Susanna Eng is completing a Bachelor of Science in Geospatial Engineering at Cal Poly Pomona with a minor in computer information science. Eng aspires to become a systems engineer specializing in Global Navigation Satellite Systems to improve national defense within geospatial-intelligence. She aims to use her background in technology to better create geodetic infrastructure allowing for more accurate measurements and stronger network signals. Eng has held an internship with Caltrans District 7 focusing on georeferencing utility maps, drafting network baselines, updating benchmark recovery notes, and creating postmile shapefiles. She has also worked on campus in information technology support and served as a teaching assistant for multiple sections of a computing course. Eng has presented at the Pacific Southwest Symposium, an annual engineering student conference, on the usage of implementing digital twins for improving water leak detection to improve hydraulic infrastructure.

Purpose: To encourage students who have an exceptional interest in pursuing scientific research or education in geospatial science or technology related to photogrammetry, remote sensing, surveying, and mapping to enter a professional field where they can use the knowledge of their discipline to excel in their profession.

Donor: This award is presented by the ASPRS Foundation from funds donated by the Anson bequest and contributions from the Society and the Potomac Region as a tribute to Abe Anson's many contributions to the field of photogrammetry, remote sensing, and long, dedicated service to the Society. The award consists of a certificate, a check for \$2,000, and a one-year membership renewal in the Society.

John O. Behrens Institute for Land Information (ILI) Memorial Scholarship

2024 recipient: Omar Madrigal

Omar Madrigal is a senior studying civil engineering with a geospatial option at California State Polytechnic University, Pomona, CA. Madrigal is described as a “remarkable student and esteemed amongst his peers” by his references. Madrigal has completed highly relevant coursework and achieved an exceptional GPA throughout his schooling. He has completed numerous internships including serving as an assistant surveyor at a private surveying firm in Pomona, CA where he designed topographic maps from a variety of surveyed and report data. He also interned as a surveyor technician with a Brea, CA land engineering firm where he staked property boundaries as well as assisted surveyors during residential and commercial property efforts. Madrigal aspires to attain his Professional Land Surveyor and Professional Engineer licenses with the ambition to build and own a surveying firm. These combined factors demonstrate strong evidence that he will use the knowledge of the discipline to excel in his profession, which is befitting of the spirit and purpose of the John O. Behrens Institute for Land Information (ILI) Memorial Scholarship.

Purpose: To encourage students who have an exceptional interest in pursuing scientific research or education in geospatial science or technology or land information systems/ records to enter a professional field where they can use the knowledge of this discipline to excel in their profession.

Donor: This award is presented by the ASPRS Foundation from funds donated by the (now dissolved) Institute for Land Information (ILI). The John O. Behrens ILI Memorial Scholarship was established by the ILI as a tribute to the many contributions of Mr. John O. Behrens to the field of geographic and land related information and technology. Mr. Behrens was a founder of the ILI and the author of many articles about the value of spatial information, land assessment and taxation, and land information policy. The Award consists of a certificate, a check for \$2,000, and a one-year membership renewal in the Society.



(L-R) Bandana Kar and Omar Madrigal

Robert N. Colwell Memorial Fellowship

2024 recipient: Mohammad Abdul Qadir Khan (Abdul Qadir)

Abdul Qadir completed his PhD in Fall 2023 from the University of Maryland, College Park. He had previously earned an MS in Geospatial Data Science in 2020 (University of Delaware) and a BTech in Physical Sciences in 2012 (Indian Institute of Space Science and Technology). Qadir's expertise lies in the use of multi-scalar time series satellite images, machine-learning algorithms, and GIS tools within the area of agriculture and food security. His doctoral research focused on crop mapping using Earth observations, specifically in regions where field surveys are restricted. He developed an innovative radar-based model to map crops throughout Ukraine to assist food security initiatives of the Ukrainian Ministry of Agriculture and other international organizations operating in Ukraine. Qadir has received numerous scholarships and awards including the ASPRS Ta Liang Memorial Award and the Future Investigators in NASA Earth and Space Science and Technology (FINESST) grant. The FINESST grant enabled him to study the impact of climate change on agriculture in northern climates. Qadir is currently working on expanding his model to other crops in Ukraine as well as other regions in the world.

Purpose: Established in 2006 to encourage and commend college/university graduate students or post-doctoral researchers who display exceptional interest, desire, ability, and aptitude in the field of remote sensing or other related geospatial information technologies, and who have a special interest in developing practical uses of these technologies.

Donor: This award is presented by the ASPRS Foundation, from funds donated by students, associates, colleagues, and friends of Robert N. Colwell. Over the course of more than a half century, Dr. Robert N. Colwell developed a reputation as one of the world's most respected leaders in remote sensing, a field that he stewarded from the interpretation of aerial photographs during World War II, to the advanced acquisition and analysis of many types of geospatial data from military and civilian satellite platforms. His career included nearly 40 years of teaching and research at the University of California, Berkeley, a distinguished record of military service reaching the rank of Rear Admiral, and prominent roles in private industry and as a consultant for many U.S. and international agencies. Among his many accolades, Dr. Colwell had the distinction of being one of the 25 Honorary Members of ASPRS. The Award consists of a certificate, a check for \$8,000, and a one-year membership renewal in the Society.

William A. Fischer Memorial Scholarship

2024 recipient: Jeng Hann Chong

Jeng Hann Chong is pursuing a Ph.D. in geodesy from the University of New Mexico. He has previously earned an MS in geophysics from California State University Northridge (2021) and a BS in geology from the University of Maryland – College Park (2019). Chong has received multiple awards including a Future Investigators in NASA Earth and Space Science and Technology (FINESST) grant. His primary research focus involves using satellite radar images and modeling to study the complex tectonic regimes and deformation in Myanmar in order to understand the driving mechanisms. Chong is also engaged in a second project building from his master's research that studies mass-wasting events such as post-fire debris flows. Chong intends to pursue a career that will allow him to use remote sensing to study tectonic deformation and natural hazards in slowly deforming regions that could potentially cause even greater damage to unprepared communities. He is driven by personal experience during an earthquake event in Malaysia and seeks to provide science education to those lacking adequate natural hazards awareness.

Purpose: The William A. Fischer Scholarship facilitates graduate studies and career goals of a worthy student adjudged to address new and innovative uses of remote sensing data and techniques that relate to the natural, cultural, or agricultural resources of the Earth. It was established in 1984.

Donor: The ASPRS Foundation through individual and corporate contributions in memory of William A. Fischer. The William A. Fischer Memorial Scholarship consists of a certificate, a check for \$2,000, and a one-year membership renewal in the Society.

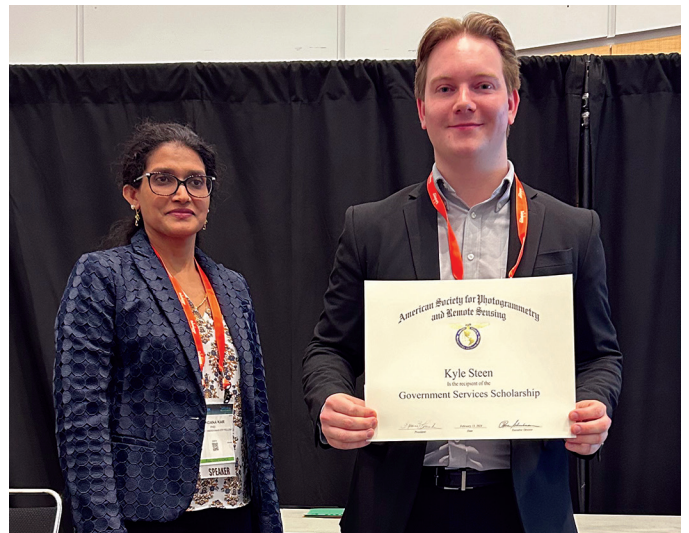
Government Services Scholarship

2024 recipient: Kyle Steen

Kyle Steen is currently pursuing a master's degree in geography from the University of Georgia (UGA) after completing BS in ecology, with a minor in Geography and a Certificate in GIS from UGA in 2021. Steen enrolled in the School of Ecology at UGA initially to learn about ecological processes and phenomena, but his interest in GIS led to summer employment with the State Botanical Garden of Georgia in Athens, Georgia where he mapped individual gardens, monuments, and utility lines. Upon completing his BS he worked with the Okefenokee Water Resources team as part of the NASA DEVELOP Program and during the summer of 2022, Steen collaborated with partners at Yellowstone National Park to identify aspen (*Populus tremuloides*) stands within the park using time series analysis stretching back to 1986. During his MS program Steen has acquired a FAA Part 107 UAS drone pilot's license, which he applied during summer work with the United States Department of Agriculture – Agricultural Research Service in Tifton, GA. After graduating, Steen seeks to move into employment with the government sector to use the geospatial skills he has gained to solve complex challenges.

Purpose: The Government Services Scholarship encourages upper-division undergraduate and graduate-level college students to pursue a course of study in photogrammetry and related topics leading to a career in the geospatial mapping profession in the government sector (federal, state, or local) within the United States. The Award also encourages geospatial professionals already in government service to pursue advanced degrees and provides a preference to U.S. veterans.

Donor: The ASPRS Foundation through the support of an anonymous donor who is a long-time supporter of ASPRS and the ASPRS Foundation. The Government Services Scholarship consists of a certificate, a check for \$7000, and a one-year membership renewal in the Society.



(L-R) Bandana Kar and Kyle Steen.

Francis H. Moffitt Memorial Scholarship

2024 recipient: Elias Fierro

Elias Fierro is an undergraduate attending California State University, Fresno majoring in Geomatics Engineering and expects to graduate in 2025. He has been working for Benchmark Engineering in Modesto, CA for the past three years and has progressed from technician to Party Chief. He has acquired his certificate as a Land Surveyor in Training. Fierro's short-term goal is to obtain an FAA Part 107 UAS drone pilot's license and eventually to obtain a license as a Professional Land Surveyor. His career goal is to work in the geospatial industry as a Land Surveyor using modern technology in photogrammetry and remote sensing. Fierro is very active in extracurricular activities and is serving as President of the Student Association of Geomatics Engineering (SAGE), which encourages students through career and club fairs. He served as co-chair of the 63rd Annual Geomatics Conference at Fresno State and will be chair next year. The annual conferences allow students to network with working professionals for their experience and perspective and to raise funds for SAGE.

Purpose: The award was first presented in 2008 with the purpose of encouraging upper-division, undergraduate-level, and graduate-level college students to pursue a course of study in surveying and photogrammetry leading to a career in the geospatial mapping profession.

Donor: The ASPRS Foundation from funds donated to the Foundation from former students, associates, colleagues, and friends of Francis Moffitt. The award consists of a certificate, a check for \$9,000, and a one-year membership renewal in the Society.



(L-R) Bandana Kar and Yushin Ahn accepting on behalf of Elias Fierro.

The Kenneth J. Osborn Memorial Scholarship

2024 recipient: Oren Nardi

Mr. Oren Nardi is pursuing a Bachelor of Science degree in Environmental Science and Management, concentrating on Geospatial Science with a Minor in Forestry from Cal Poly Humboldt. Nardi anticipates graduating in December of 2024. Following his undergraduate degree program, he plans to continue his education through graduate studies at the University of California at Davis. His long-term professional career goal in the geospatial field is to spearhead commercial-grade UAS applications into solving real-world questions such as monitoring landscape-based vegetation treatments. Nardi exemplifies the Osborn qualities of communication and collaboration through participation in activities within the Cal Poly Humboldt campus community by serving in key roles with university partners, such as, the Open Forest Observatory, Cultural Fire Management Council, and with the College of the Redwoods.

Purpose: to encourage and commend college students who display exceptional interest, desire, ability, and aptitude to enter the profession of surveying, mapping, photogrammetry, or geospatial information and technology. In addition, the Award recognizes students who excel at an aspect of the profession that Ken demonstrated so very well, that of communications and collaboration.

Donor: The ASPRS Foundation from funds donated by the friends and colleagues of Kenneth J. Osborn. Recognized nationally and internationally, Ken was an outstanding practitioner of surveying, mapping, photogrammetry, and geospatial information and technology, and a great friend of the Society. As a professional cartographer with the U.S. Geological Survey, Ken made significant contributions to these fields. The award was first offered in 2005. The Award consists of a certification, a check for \$2,000, and a one-year membership renewal in the Society.

Ta Liang Memorial Award

2024 recipient: Sarah Esenther

Sarah Esenther is a geoscience doctoral student at Brown University researching Arctic remote sensing hydrology. She had previously completed a BS in civil/environmental engineering at the University of Massachusetts Amherst and a Master of Public Health in Environmental Health Science from Yale University. Esenther aims to advance the use of remote sensing technologies in polar hydrology applications to improve modeling and projection of climate change impacts. In her first doctoral paper, Esenther used remotely sensed albedo, snow cover, and precipitation to supplement field measurements of meteorological variables from a watershed in Northwest Greenland in order to identify drivers of variability in total meltwater runoff. Her current research is focused on developing a machine learning tool that uses WorldView, Sentinel-2, and Landsat imagery to map supraglacial streams and lakes over the Greenland Ice Sheet. Throughout her graduate students, Esenther has mentored undergraduate and high school students, introducing them to public remote sensing data and open-source software. Esenther will use the Ta Liang award to fund travel for herself and two other graduate students to support coordination of a new project exploring the role of surface water on ice shelf stability.

Purpose: To facilitate research-related travel by outstanding graduate students in remote sensing, including field investigations, agency visits, participation in conferences, or other travel that enhances or facilitates graduate research.

Donor: Individual and corporate contributions to the ASPRS Foundation in memory of Ta Liang, a skilled civil engineer, an excellent teacher, and one of the world's foremost air photo interpreters, the award consists of a certificate, a check for \$2,000 grant, and a one-year membership renewal in the Society.

Paul R. Wolf Memorial Scholarship

2024 Recipient: David Abiola

David Abiola is presented the Paul R. Wolf Memorial Scholarship in recognition of his outstanding academic credentials and his plans and enthusiasm to become an education and research professional in Surveying, Mapping, Photogrammetry, and related fields. Abiola is currently a doctoral candidate in Civil Engineering with an emphasis in Geomatics at Oregon State University with a projected graduation date of September 2026. Abiola has demonstrated a continued interest, dedication, enthusiasm, passion, and aptitude to become an education professional as exemplified by his outstanding work as a teaching assistant. He wants to grow his skill set and continually learn new technologies in the geomatics field. Abiola's career goal is to become a recognized researcher, problem-solver, and educator.

Purpose: To encourage and commend college students who display exceptional interest, desire, ability, and aptitude to enter the profession of teaching surveying, mapping, or photogrammetry.

Donor: the ASPRS Foundation from funds donated by the friends and colleagues of Paul R. Wolf. Recognized nationally and internationally, Dr. Wolf was an outstanding educator and practitioner of surveying, mapping, and photogrammetry and a great friend of the Society. As author, teacher, and mentor, Dr. Wolf made significant educational and academic contributions to these fields. The award was inaugurated in 2003 and includes a certificate, a check for \$5,000, and a one-year membership renewal in the Society.



(L-R) Bandana Kar and David Abiola

ANNUAL BUSINESS MEETING AND INSTALLATION OF OFFICERS

Recognition of Retiring Members of Board of Directors and Executive Committee

Amanda Aragon, *Committee Chairs Council*
 Youssef Kaddoura, *Early Career Professional Council*
 Denise Theunissen, *GIS Division*
 Aparajithan Sampath, *Lidar Division*
 Ben Wilkinson, *Photogrammetric Applications Division*
 Jacob Lopez, *UAS Division*

Installation of New Council Chairs

David Day, *Committee Chairs Council*
 Greg Stamnes, *Early Career Professional Council*
 Oscar Duran, *Student Advisory Council*
 Paul Badr, *Sustaining Members Council*

Installation of New Division Directors

Jin Lee, *GIS Division*
 Matt Bethel, *Lidar Division*
 Hank Theiss, *Photogrammetric Applications Division*
 Bahram Salehi, *UAS Division*

Installation of New Division Assistant Directors

Michael Baranowski, *GIS Division*
 Rebecca Capps, *UAS Division*
 Jae Sung Kim, *Photogrammetric Applications Division*
 Nora May, *Lidar Division*

Recognition of Retiring Past-President

Christopher Parrish, *Immediate Past President*



(L-R) Lorraine Amenda, David Day, and Paul Badr.



(L-R) Lorraine Amenda, Matt Bethel, Bahram Salehi, and Hank Theiss.



(L-R) Lorraine Amenda, Michael Baranowski, Rebecca Capps, Jae Sung Kim, and Nora May.

Installation of Officers

Alvin Karlin, *Vice-President*

Amr Abd-Elrahman, *President-Elect*

Bandana Kar, *President*

Presentation of Birdseye Citation and President's Key to Retiring President

Lorraine Amenda, *Immediate Past-President*



(L-R) Bandana Kar and Lorraine Amenda.

Purpose: The Col. Claude H. Birdseye President's Citation was established in 1965 as a tribute to one of the founders and the first president of the Society. Each year at the Annual Convention it is conferred on the outgoing president in recognition of her/his contributions to the Society.

Donor: ASPRS. The Birdseye Citation carries with it a gold Past President's Key, and a certificate. The retiring President will also receive the Presidential Gavel mounted on a walnut plaque.



(L-R) Lorraine Amenda and Alvin Karlin



(L-R) Lorraine Amenda and Amr Abd-Elrahman



(L-R) Lorraine Amenda and Bandana Kar