
# Tours | Classes | Annual Awards Banquet | Members Meeting

***Join fellow engineers at the SALISHAN COASTAL LODGE for the 2022 Conference, Membership Meeting & Awards Banquet***

## "INFRASTRUCTURE for the Next Generation"

***Earn Up to 12 PDHs***

**In-person or Virtual Hybrid Experience – You choose how you want to attend…**

Enjoy the coast while you network with engineering peers, exhibitors, and speakers. We are committed to the safety of our attendees. All attending the in-person event will adhere to local, state, county, and federal health requirements. Feel free to wear your mask even if not mandated. Virtual attendance is also an option – Thursday only - classes, members meeting and awards ceremony.

**Salishan Coastal Lodge | 7760 Hwy 101 North | Gleneden Beach, OR 97388** Call for Reservations (541) 764-3600 Ask for the Professional Engineers of Oregon group based on availability. *Bring your spouse and family* - The Spa | Aerial Park | Nature Trails | Mountain Bike Skills Course | Private Beach Access | Firepits | Pool and Whirlpool Hot Tub | Dog-Friendly and ADA/Accessible Rooms | Complimentary Wi-Fi | Year-Round Tennis Center | Salishan Seekers (Beautiful glass globes for you to find) Learn more @ www.salishan.com

*Wednesday informal gathering* - ***Beachcrest Brewery*** at The Marketplace across from the Salishan Ocean Lodge -
Two complimentary 4 oz. tasters for Salishan guests with their room keys.

*Thursday Night Awards Banquet - families welcome! Ticket $55.00 for guest and $25.00 for kids*
Recognizing engineers for their outstanding accomplishments and commitment to the profession, the community, and humankind:
PEO Fellow | Oregon Professional Engineer of the Year | Oregon Young Engineer of the Year

**Sign Up Online @ https://conta.cc/3C3OWtn** *Early bird discount - 2 Day Registration expires April 10th*

*Non-Member Fee Includes 1 Year Membership National, State & Local Chapter - if the attendees choose.*

**2 Day In-person Attendance - Thursday and Friday - 12 PDHs & choice of Sessions**
Includes all classes, breakfast & lunch each day, Afternoon Tour on Wednesday, Awards Dinner
$395.00 Member / $695.00 Non-Member After April 10th $450.00 Member / $750.00 Non-Member

**1 Day Virtual - Thursday - 6 PDHs & choice of Sessions**
All classes available virtually with a unique link to each meeting room plus Generals Sessions, Members Meeting & Awards.
$250.00 Member / $550.00 Non-Member

**1 Day In-person Attendance - Thursday or Friday**
**6 PDHs & choice of Sessions**
Includes all classes, breakfast & lunch - $250.00
Member / 550.00 Non-Member

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TOPCON SOLUTIONS Store

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**Program and speakers subject to change without notification.**

## Wednesday, May 4, 2022

**1:30 & 2:30 Tour of OSU's New Marine Science building / Gladys Valley Marine Study (Max 12 attendees for each tour time)**
**3:00 Tour of Seal Rock Water Dist. new system / Water Treatment New Plant (Max 12 attendees)**

## Thursday, May 5, 2022, 6 PDHs *Virtual & In-Person*

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| **7:00** | **CONTINENTAL BREAKFAST – CHECK IN** |
| **8:00** | **WELCOME Thomas Headley, PE, CWRE, FPEO, President, PEO** |
| **8:15**<br>**9:15** | OPENING SESSION **Climate Change that Impacts on Infrastructure Effecting Communities**<br>*Ted Bradley - Deputy Director for Marine Operations w/ NOAA*<br>NOAA's Marine Operations operates and maintains a fleet of fifteen research vessels and numerous small boats. This presentation will discuss how the operations and maintenance of the fleet support a mission that performs observations, acquisition, analysis, and assessments of our climate. |
| **9:30**<br>**10:30** | **Greenhouse Gas Reduction/Climate Protection Program**<br>*Nicole Singh, Senior Climate Policy Advisor, Office of Greenhouse Gas Programs, ODEQ*<br>What the recently approved Greenhouse Gas Reduction/ Climate Protection Program means to fossil fuel users and stationary sources - rules, impacts, benefits.<br>**Professional Ethics – Right or Wrong: You Decide**<br>*Rick Guerra, P.E., F. NSPE, President 2021-22 NSPE*<br>Ethics is often referred to as the right or wrong way of doing things. But how do we act when no one is watching? This presentation begins with a brief review of the NSPE Code of Ethics and an introduction to the NSPE Board of Ethical Review as a valuable ethics resource. Attendees will explore and analyze several case studies that will help them strengthen their own professional ethics by discussing common dilemmas facing engineers in today's work environment. |
| **11:00**<br>**12:00** | **Frog Ferry in Portland**<br>*Susan Bladholm, Founder / President*<br>Passenger ferries are rapidly growing in markets around the world due to the low implementation and operational costs, reduction of greenhouse gas emissions through use of emerging technologies, and the opportunity to offer passengers an enjoyable and informative experience. This presentation will also inform regarding a planned ferry in the Portland metro area.<br>**Earthquake Protection Systems Base Isolators**<br>*Anoop Mokha, Ph. D, SE* A "Continued Functionality" Triple Pendulum isolation design criteria will be presented for achieving Resilient & Sustainable Structures. Real earthquake performance of the Continued Functionality concept will be presented demonstrating maintaining full functionality and operation of facilities with no damage. In contrast "Code Compliant " structural systems that have also been tested by real earthquakes all over the world did not maintain functionality and had damage. |
| **12:00** | **LUNCH - Members Meeting** Thomas Headley, PE, CWRE, FPEO, President PEO & Rick Guerra, P.E. Texas, F. NSPE, President NSPE |
| **1:00-**<br>**2:00** | **Protective Relays (Past, Present, Future)**<br>*Dan Henriod* Protective devices play a critical role in our power system infrastructure providing fault isolation, equipment protection, system control and human safety. This presentation will cover the advantage of today's computer processing power and speed, modern Protective relays now provide faster, more sophisticated, and advanced capabilities for protecting, controlling, and monitoring today's growing and complex power system networks.<br>**Engineers Rising: Students Panel Session**<br>*Yumei Wang*, who serves in the PEO's PE in Education role, will moderate this session, which will include 4 – 6 students from various engineering disciplines (civil, environmental, mechanical, electrical, construction eng., computer eng., etc). Students are 2021 scholarship recipients and PEO student members from Oregon colleges. Each student will describe her/his/their engineering interest and seek engineering career advice from PEO leadership as well as audience members. All are invited to support student members and engage in this discussion! |
| **2:30-**<br>**3:30** | **Preparing Hospitals in Coastal Communities**<br>*Yumei Wang, PE, FASCE, Owner of SLS LLC, and Senior Advisor on Infrastructure Resilience and Risk Affiliate Faculty, Civil & Environmental Engineering, Portland State University*<br>Engineers need to help reduce the increasing frequency and severity of disasters. Wang will discuss the expected damage to critical infrastructure from a Cascadia earthquake and tsunami in coastal communities, the seismic vulnerability of the Highway 101's bridges that will result in a series of "islands", and specific challenges that hospitals face in preparing for "the big one". Improvements of critical lifeline infrastructure are needed to meet the "triple 3 resilience target", which integrates readiness, response and recovery goals. Wang will provide guidance on fuel and water disaster planning that she developed for Oregon's eleven coastal hospitals.<br>**Leveraging Limited PE Staff to Develop EIT's into PE's**<br>*Joe Brotherton, PE, Functional System Leader, Hyster-Yale Group*<br>How do you support and grow professional licensure within a large engineering community with a limited group of licensed engineering managers? Through sharing of the Hyster-Yale Group's story, you will learn about an alternate approach, leveraging PEs to develop engineers and promote licensure. |
| **4:00-**<br>**5:00** | KEYNOTE CLOSING SESSION **Infrastructure Priorities for Oregon's Coastal Caucus** *Representative Gomberg, Caucus Chair*<br>**Infrastructure Priorities & Pipeline for Pacific Northwest Economic Region (PNWER) -** *Representative Brock Smith, OR Delegate*<br>**Meet Oregon's new Director of Infrastructure** *Director Leah Horner* |
| **5:00** | **RECEPTION** |

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| **6:00** | **AWARDS BANQUET INSTALLATION OF OFFICERS & ORDER OF THE ENGINEER CEREMONY** |
| | **Friday, May 6, 2022, 6 PDHs** |
| **7:00** | **CONTINENTAL BREAKFAST - Board Meeting 6:00 am – Members welcome!** |
| **8:00**<br>**9:00** | **High Impedance Faults (What are they and how they can be detected)**<br>*John Town* This presentation will provide an overview of high impedance faults on distribution systems, explain why high impedance faults are difficult to detect with traditional, distribution protection techniques, and demonstrate different solutions to address these challenges.<br>**Electrical System Earthquake Resilience**<br>*Dr. Ted Brekken, Professor Energy Systems Electrical Engineering and Computer Science Oregon State University A* Cascadia Subduction Zone earthquake will cause widespread devastation across the U.S. Pacific Northwest. The presentation covers how earthquakes impact the grid and what mitigations can be applied. Personal disaster planning and preparation will also be covered. |
| **9:15**<br>**10:15** | **PacWave / PMEC**<br>*Ean Amon, Power & Data Systems Engineer with PacWave at Oregon State University*<br>PacWave South will offer pre-permitted, grid-connected wave energy testing in a high-energy, open ocean environment. Located seven miles off the Pacific coast near Newport, Oregon, the facility features deeper water and consistent, energetic waves and steady winds — ideal for testing survivability and energy production. Construction of the facility is underway, and an overview of the project will be provided with an update on the current progress. Additionally, wave energy technologies will be discussed, as well as ongoing research at PacWave.<br>**Seal Rock Water District New Water Treatment Plant**<br>*Adam Denlinger, General Manager, Seal Rock Water District Co-Convener, Mid-Coast Water Planning Partnership Board Member, Special District Association of Oregon & Jennifer Kock, Jacobs Engineering*<br>Seal Rock and surrounding communities had known for years that their water supplies were particularly vulnerable. Adam will share the project results and the collaborative effort to make it happen. |
| **10:45**<br>**11:45** | **Supply, Storage, Sequestration, or Sacrilege: Integrating Offshore Aquifers into Oregon's Water and Carbon Infrastructure**<br>*Todd Jarvis and Julianne Robinson, Oregon State University*<br>Subsea aquifers are identified in over three hundred locations worldwide. Oil and gas exploration wells drilled offshore Oregon in the 1960s found volcanic rocks that are used for water supplies elsewhere in Oregon. Basalts are identified as reservoir rocks for carbon sequestration. Infrastructure for future offshore groundwater development, storage, and carbon sequestration includes the next generation of floating pipelines and subsea wellhead completions.<br>**Primary Success Factors from a General Contractor's Perspective** *Jim Maher, Oregon Business Unit Leader, Fortis Construction*<br>Fortis Construction is an employee-owned general contractor headquartered in Portland, Oregon. From straight-forward to technically advanced projects, Fortis works to build lasting impressions in the U.S., Europe and Asia. With an annual revenue of $1.5B+, this presentation will focus on the key ingredients that lead to successful projects. |
| **12:00** | **LUNCH OSBEELS Update** *Board Administrator, Jason Barbee, and Board President. Dr. Sean St. Clair, P.E.* |
| **1:00**<br>**2:00** | **Automation in Construction** *Michael J. Olsen, College of Engineering Dean's Professor Geomatics, School of Civil and Construction Engineering Joint Appointment, College of Forestry Oregon State University Engineers* across the nation are faced with immense challenges to maintain public infrastructure ranging from upgrades to support future innovations and trends such as connected vehicles to mitigation efforts to withstand impacts of natural hazards. This presentation will discuss recent innovations in geospatial technology to support diverse applications including efficient point cloud analysis algorithms, road marking extraction and evaluation, geohazard hazard mapping and monitoring, and post-disaster reconnaissance. The work of the Cascadia Lifelines Program will be highlighted in some of these examples.<br>**Communication Soft Skills** *Jalene Case, Leadership Coach*<br>Communication skills are an essential part of an engineer's career in order to convey critical, often complex, information to different people, and to continue professional growth. You will learn to: identify the behavioral style of another person, determine the best approach for "how" to deliver your message to a variety of people, adapt your communication style to ensure your message is heard. |
| **2:15**<br>**3:15** | **Introducing Civil 3D Project Explorer Nate** *Philbrick Application Specialist at Topcon Solutions / Kevin Closson Technical Specialist Manager at Topcon Solutions Store, NW Topcon* Solutions will introduce the Civil 3D Project Explorer tool and suggest helpful workflows for those working within the AEC industries. Finally, we will demonstrate integrating use with a Civil 3D project. Join this Topcon Solutions online seminar to learn more about how you can utilize Project Explorer within your projects.<br>**PGE Wildfires - Engineering for Public Safety** *William M. Messner, Esq. Director Wildfire Mitigation & Resiliency*<br>The discussion will focus on Portland General Electric's 2022 Wildfire Mitigation Plan and investments that are being embarked upon to mitigate the risks associated with wildfire ignitions.<br>**Nuclear' s Moment of Truth—The Status of Nuclear Power in 2022 Brian** *Woods, Ph.D., Henry W. and Janice J. Schuette Chair in Nuclear Engineering and Radiation Health Physics, Professor and Head, School of Nuclear Science and Engineering, OSU*<br>Recent energy related challenges including climate change, geopolitics and inflation have some people taking another look at nuclear power. This presentation will take a look at the current status of operating reactors, new construction, and advanced reactor concepts; and their ability to address these challenges. |
| **3:30** | CLOSING SESSION **Infrastructure Planning for a Just Clean Energy Transition**<br>*Shannon Souza, PE* An overview of state and regional energy roadmaps for equitable, decarbonized energy security with a discussion of implications for infrastructure planning & development. |
| **4:30** | Closing Remarks |

# MEET OUR PRESENTERS

**Ean Amon** is the Power & Data Systems Engineer with PacWave at Oregon State University (OSU). He received his Ph.D. from OSU in 2010 with focus on power systems and became a licensed Professional Engineer in 2014. His work with PacWave began in 2010 as Test Engineer for the developing testing facility. From 2015-2019, Ean worked in industry as the Sr. Electrical & Controls Engineer for a marine energy technology developer. Then, in 2020 he returned to PacWave after funding was secured to begin infrastructure development for the cable-to-shore and grid-connected ocean testing facility, located near Newport, Oregon. As the Power & Data Systems Engineer, Ean is helping develop the infrastructure of the shore-based testing facility, as well as a suite of research buoys and equipment for use in offshore tests. He is also involved with PacWave research projects, including developing a subsea energy storage system.

**Susan Bladholm** has 35 years of transportation infrastructure, economic development, and strategic marketing experience. As a student pilot, she flew over river cities across the world and was compelled by their ferry operations especially as the Portland/Vancouver region has been increasingly mired in gridlock. Friends of Frog Ferry was created in 2017 to activate our river ways with a proven new transit mode using green technology. She leads the Frog Ferry board, nine volunteer teams of two hundred volunteer industry experts, and has attracted more than $8M in professional services pro bono value. She served as the Senior Director of Strategy and Communications at Erickson Inc. a global helicopter company (operator and manufacturer of the S-64); President of Sunstone Marketing a communications consultancy; Director of Corporate Marketing for the Port of Portland; Founder/Executive Director/VP Marketing for Cycle Oregon; and VP of Marketing for Greater Portland Inc. Current community involvement includes Providence Leadership Cabinet, Chair; Multnomah Athletic Club, several committees; Human Access Project, Trustee; and Kinect Air, Advisor. Ms. Bladholm holds a BA in Communications from the University of Puget Sound where she serves as her class president.

**Ted Bradley, PE** is the Deputy Director for NOAA's Marine Operations located in Newport, OR. Over the last 20 years, Mr. Bradley has worked for the Naval Surface Warfare Center Carderock conducting acoustic trials on submarines and surface ships, he then transitioned to NOAA to oversee construction of new research vessels and is currently supporting fleet operations. Graduate of Florida Atlantic University and Virginia Tech with a BS and MSc. in Ocean Engineering.

**Ted K.A. Brekken** is a Professor in Energy Systems at Oregon State University. He received his B.S., M.S., and Ph.D. from the University of Minnesota in 1999, 2002, and 2005 respectively. He studied wind turbine control at the Norwegian University of Science and Technology in Trondheim, Norway in 2004-2005 on a Fulbright scholarship. His research interests include control and modeling of renewable energy systems and electrical system resilience. He is director of the Wallace Energy Systems and Renewables Facility (WESRF). He has received an NSF CAREER award, the IEEE Power and Energy Outstanding Young Engineer award, and numerous teaching awards.

**Joe Brotherton, PE** has spent 22 year in product development for vehicle and mobile equipment and inventor of eleven patents. Joe received a BS and MS in mechanical engineering from Oregon State University. Joe has been an engineering manager for 11 years at Hyster-Yale Group, Inc. in Fairview, Oregon. He has been a registered Professional Engineer in Oregon since July 2003. Hyster-Yale Group, Inc., designs, engineers, manufactures, sells and services a comprehensive line of lift trucks and aftermarket parts marketed globally primarily under the Hyster® and Yale® brand names. Hyster-Yale Group has been building relationships and partnering with customers, suppliers, dealers, and employees for over 90 years. Subsidiaries of Hyster-Yale Group include Nuvera Fuel Cells, LLC, an alternative-power technology company focused on fuel-cell stacks and engines, and Bolzoni S.p.A., a leading worldwide producer of attachments, forks and lift tables under the Bolzoni®, Auramo® and Meyer® brand names.

**Jalene Case**, Leadership Coach, works with leaders who want to lead themselves first and develop a stronger team that focuses on what matters most. As a coach and consultant, she brings 40 years of business experience and a passion for the work! She holds a Master's in Education with a focus in organizational learning and has earned certifications in professional coaching and various assessment tools in order to offer clients a unique support strategy for reaching their goals. In 2015, she went on the trip of a lifetime, traveling with her husband from Oregon to the southern tip of South America on motorcycles for 2 years. Learn more about Jalene and her purposeful work at JaleneCase.com.

**Kevin Closson** is a Technical Specialist Manager, Speaker and Consultant for the Topcon Solutions Store, NW. There, Kevin pulls from over 20 years of experience (e.g., field and certified instruction) as he proudly specializes in the technical development of countless individuals, private firms and government agencies. Combining Autodesk's highest level of certifications with his unique teaching style, Kevin has become the Northwest's most sought out Autodesk instructor in the implementation of Civil 3D, Template customization and workflow assessment. In addition, he has lent his expertise to innumerable speaking engagements that include local user groups, state conferences and Autodesk University."

**Adam Denlinger** 36-year career in municipal government serving both large and small communities in Texas, California and Oregon. Responsible for managing numerous complex government programs and infrastructure projects related to municipal water and wastewater uses. Served in many collaborative roles with multiple agencies to provide beneficial cost saving outcomes related to joint service agreements, and regional municipal improvements. Studied principals of water and wastewater management at Sacramento State University, California. Serve as a Board Member for the Special District Association of Oregon (SDAO) representing the interests of member districts throughout the State, also serve as a member of the SDAO legislative committee. Represent the Mid-Coast Water Planning Partnership as a Co Convener, serving the collective interest of water throughout the mid-coast region. I hold state registration in water and wastewater in Oregon and California.

**Rick Guerra, P.E. Texas, F. NSPE** is serving as President of NSPE for the 2021-22 term. As an active member of NSPE since 1994, Rick has served in numerous leadership roles at the chapter, state, and national levels, including President of the Texas Society of Professional Engineers in 2016-17. In 2018 he was named a NSPE Fellow. Rick received his BS in Mechanical Engineering in 1982 and his MS in Engineering in 1988, both from the University of Texas at Austin. He is a licensed Professional Engineer in Texas and California. In 2007, Mr. Guerra was appointed by Governor Rick Perry as the Licensed Professional Engineer Member of the Texas State Board of Plumbing Examiners, where he served until 2019. He is President/CEO, and majority shareholder of Jose I. Guerra, Inc., a full-service, facilities engineering firm with offices in Austin, San Antonio, and Corpus Christi, Texas. The firm provides a comprehensive range of Civil, Structural, Mechanical, Electrical, Plumbing and Fire Protection engineering services to clients throughout the State of Texas. Rick is also an active volunteer for his church, Boy Scouts of America, and various other community organizations. He continues to promote the engineering profession by serving as a guest lecturer at UT Austin, acting as a high school Career Day host and serving as an engineering mentor for local high school students."

**Daniel Henriod** received a BSEE from the University of Nevada-Reno in 1992 and a Master of Engineering in Electrical Engineering from the University of Idaho in 2014. He has extensive experience in substation design, power generation and system protection and control. Mr. Henriod is a registered Professional Engineer in California, Oregon and Washington and currently works as a Protection Application Engineer for Schweitzer Engineering Laboratories."

**Todd Jarvis** has over 35 years of experience in the groundwater engineering industry. He works at the Institute for Water & Watersheds at Oregon State University in Corvallis, Oregon, one of the 54 Water Resources Research Institutes distributed across the United States and US territories. He teaches Environmental Conflict Resolution at the University of Oregon Law School. Todd has professional licenses as an Oregon-Certified Engineering Geologist and Oregon-Certified Water Right Examiner. He is also a Certified Online Mediator with 20 years of experience in dispute prevention and conflict resolution for groundwater, aquifers, and water well construction. Todd is the author of the book *Contesting Hidden Waters: Conflict Resolution for Groundwater and Aquifers* and the co-author of a new book with water attorney Jakob Wiley titled *Collective Aquifer Governance: Dispute Prevention for Groundwater and Aquifers through Unitization*.

**Jennifer P. Koch, PE, LEED AP BD+C, CESCL** is a site civil engineer and design manager with a combined total of 18 years of design experience and specialized expertise leading civil and design teams for all sizes of water and wastewater treatment plants. Her experience includes government, federal, transportation, hydropower, and reservoir projects. Her skills include demolition, implementation of stormwater management design and practices, stormwater hydraulics, wastewater conveyance, erosion control, permitting, site grading, underground utility and yard piping design, sanitary sewer and conveyance pipeline design, and pavement design. Jennifer is experienced with conventional, design-build (DB), construction manager at risk (CMAR), CM/GC and design-build-operate (DBO) delivery methods. Additional experience includes construction management with projects requiring local funding and knowledge of EJCDC contract documents and requirements. She has extensive experience in DB, DBO, design-build operate-finance (DBOF), and operate-design-build operate (ODBO) project deliveries. Previous experience prior to

Jacobs included materials testing, geotechnical, field and structural inspection, and residential engineering work, with proven ability to successfully manage teams. Jennifer is a professional engineer licensed in the state of Oregon, Washington, Nevada, Texas and Rhode Island.

**Jim Maher,** Senior Executive Fortis Construction is currently the Oregon Business Unit Leader for Fortis Construction, based in Portland, OR. Jim cut his teeth in the construction industry on a variety of complex projects in downtown Chicago. Since joining Fortis in 2013, he has focused primarily on government and technology work. In his current role, Jim also oversees the operations of the commercial, education, and healthcare market sectors. As a past president of the DBIA Oregon Chapter, Jim believes that a collaborative delivery method and engaged, high-functioning team are two key elements to success. Graduate of the University of Illinois with a BS in Civil Engineering.

**William Messner** joined Portland General Electric in 2014 as Director of Safety. He has been the Director of several departments and currently the Director of Wildfire Mitigation and Resiliency. Bill has a BS in Civil Engineering from California Polytechnic University, Juris Doctorate from Suffolk Law School, and an MBA from University of California.

**Anoop Mokha, Ph. D, SE** - Dr. Anoop S. Mokha engineering career has spanned from basic research on Friction Pendulum bearings to its implementation in important and critical industrial, bridge, and building structures worldwide.

**Michael J. Olsen** College of Engineering Dean's Professor Geomatics, School of Civil and Construction Engineering Joint Appointment, College of Forestry Oregon State University Michael Olsen is a Professor of Geomatics in the School of Civil and Construction Engineering at Oregon State University and Director of the Cascadia Lifelines Program. He is currently serving as the Editor-in-Chief for the ASCE Journal of Surveying Engineering. He has BS and MS degrees in Civil Engineering from the University of Utah and a Ph.D. from the University of California, San Diego. His current areas of research include terrestrial laser scanning, drone-based photogrammetry, GIS, geohazard engineering, hazard mapping, and 3D visualization.

**Nate Philbrick** is an Application Specialist at Topcon Solutions, and is an Autodesk Certified Professional for Civil 3D as well as a Part 107 Drone Certified Pilot. Nate is from Hennicker, NH and attended the University of New Hampshire where he got his B.S. in Civil Engineering followed by his MBA. He has worked in the consulting world in New England focusing on wastewater projects. Afterwards, he came to Portland, OR and worked at Autodesk as an infrastructure specialist focusing on Civil 3D, InfraWorks and ReCap.

**Julianne Robinson** graduated with an Honors degree in Biological and Ecological Engineering at Oregon State University. She served as a Peace Corp Volunteer in Panama. She served as a graduate student assistant working on Oregon's offshore aquifer development potential while pursuing a Graduate Certificate in Water Conflict Transformation and Management. She is currently an engineer with the Natural Resources Conservation Service working on irrigation canal lining design and construction in Central Oregon.

**Henry W. and Janice J. Schuette** Chair in Nuclear Engineering and Radiation Health Physics, Professor and Head, School of Nuclear Science and Engineering, OSU.

**Nicole Singh** is the Senior Climate Policy Advisor for the Office of Greenhouse Gas Programs at Oregon DEQ. Nicole was the rulemaking lead for the Department's Climate Protection Program and continues to work on this program's implementation. With this rule Oregon became the second state in the nation to place enforceable limits on greenhouse gas pollution from the natural gas and transportation sectors. Nicole spent several years as the Executive Director for RGGI, Inc., implementing the Regional Greenhouse Gas Initiative (RGGI), the first mandatory market-based program in the United States to reduce greenhouse gas emissions. A multi-state initiative, RGGI caps and reduces carbon dioxide emissions from the power sector. Nicole also worked as the Associate Director for Environmental Bankers Association (EBA), a financial services trade association, focusing on climate change risk, sustainability and environmental, social, governance (ESG) issues in financial operations and lending practices. Nicole's interest is in pursuing creative solutions for blending environmental protection, social justice, and economic development. She received her BA in Government and Environmental Studies from Franklin & Marshall College and her Master of Public Policy from Princeton University.

**Shannon Souza, PE** is a sustainability consultant and contractor based in Coos Bay Oregon with the mission to support strategic growth, responsible development, and sustainable living. Her practice has spanned industrial environmental optimization, public water supply development, habitat restoration, renewable and net zero energy design, low impact stormwater integration, and policy engagement. As Pacific Ocean Energy Trust's Policy Director she represents ocean based renewable energy in Oregon and regional energy conversations. Shannon also volunteers as Executive Director of Oregon Coast Energy Alliance Network (OCEAN), Policy Chair for Oregon Solar + Storage Industry Association's (OSSIA), councilor on Gov. Brown's Resilience Mitigation Activity Council (RMAC), Board Director for Professional Engineers of Oregon (PEO) and was Founding Chair of the Coos Housing Action Team (HAT). She received her B.S. in Mechanical Engineering from Santa Clara University and was named Oregon's Engineer of the Year in 2019 for her advocacy for a "thriving, resilient Oregon".

**John Town** received a BS in electrical engineering in 2009 and an M.S. specializing in power systems in 2014, both from Michigan Technological University. John spent several years designing and commissioning power system protection systems before joining Schweitzer Engineering Laboratories, Inc. (SEL) in 2014 as an Application Engineer. He currently focusses on System Protection and works from Beaverton, OR as an Application Engineer with SEL.

**Yumei Wang** For over 30 years, Yumei Wang has worked to improve disaster resilience of civic and lifeline infrastructure. Wang is a registered professional engineer, licensed engineering geologist, owner of a consulting business SLS LLC, and Affiliate Faculty Senior Advisor on Infrastructure Resilience and Risk in the Civil and Environmental Engineering Department at Portland State University. She devoted 26 years working for the Oregon Department of Geology and Mineral Industries (DOGAMI), served as a Congressional Fellow in the U.S. Senate in Washington DC, and has appeared on various programs, including PBS NewsHour, NOVA and National Geographic. Wang holds master's and undergraduate degrees from the University of California at Berkeley and UC Santa Barbara.

**Brian Woods, Ph.D.** is the Head of and a Professor in the School of Nuclear Science and Engineering at Oregon State University. He holds a B.S. in Mechanical Engineering (1988) from the University of Virginia, an M.S. in Nuclear Engineering (1999) from the University of Maryland, and a Ph.D. in Nuclear Engineering (2001) from the University of Maryland. His areas of interest include the design and safety of small and intermediate modular nuclear reactors, and advanced fission and fusion reactor concepts as well as the thermal fluid phenomena important to these designs. Brian has worked at the U.S. Department of Energy as an engineer within the Office of Environmental Restoration as well as serving for four years in the U.S. Navy as a diver. Prior to coming to Oregon State, he worked as a Nuclear Safety Analyst at Dominion Energy's Innsbrook Technical Center outside of Richmond, Virginia. Brian has been at Oregon State University since 2003 teaching undergraduate and graduate courses on applied thermal-hydraulics, nuclear reactor safety, fluid dynamics, nuclear rules and regulations, and the societal aspects of nuclear technology. He has been actively involved in thermal-hydraulic and reactor safety research projects sponsored by the NRC, DOE and IAEA.

SALISHAN

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