FIRST NY TECH VALLEY

REGIONAL JUDGE BIOS

2019 New York Tech Valley Regional
Rensselaer Polytechnic Institute | Troy, NY
March 7-9, 2019

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JUDGE ADVISOR

Thomas Barone, P.E. is president of Sustainable and Innovative Solutions. He is the former Senior Director of Energy and Sustainability at the NYS Office of Parks, Recreation, and Historic Preservation where he managed the energy efficiency and renewable energy programs for the Agency's 5,000 buildings. Previously, Tom was the Acting Vice President for Energy Services at the New York State Energy Research and Development Authority (NYSERDA) where he oversaw NYSERDA's operations and energy efficiency and renewable energy deployment and services programs. Tom has over 30 years of experience in the energy efficiency industry in various roles within the commercial, industrial, residential, and multi-family sectors. Tom is a licensed professional engineer in New York State and received a bachelor's degree and master's degree in Civil Engineering from Rensselaer Polytechnic Institute. Tom has judged at the NY Tech Valley Regional for four years, the New York City Regional, the Hudson Valley Regional, the Central NY Regional and the World Championships in St. Louis.

JUDGE MANAGER

John Neun, P.E. has had a long career determining how to make paper machines run more efficiently all over the world. Over the past 40 years, he has worked for manufacturing companies and consultants as a technical contributor and manager, and has developed proficiencies in machine design, structures, machine and structural vibration, experimental design and statistical analysis, project management, and paper manufacture. He is a past mentor and chairman of a founding FIRST robotics team, and has been involved in educational robotics since 1999. He has bachelor's degree and master's degrees in mechanical engineering from Rensselaer Polytechnic Institute, has six US Patents, and is a registered Professional Engineer in New York State.

JUDGES

Peter Altenburger has been with National Grid since 1992 in a number of engineering and operations roles. He currently holds the position of Director – OH and UG Construction leading a team of craftsman responsible for capital construction and maintenance of the distribution system in National Grid's eastern division. He received a Master of Science in Electrical Engineering from Rensselaer Polytechnic Institute and a Bachelor of Engineering in Electrical Engineering from Manhattan College.

Rick Avila is a Computer Scientist and CEO of Accumetra, a high performance imaging services company focused on advancing the science of image-based decision making. Rick has extensive experience developing healthcare software solutions in academic, government, and commercial settings including at Howard Hughes Medical Institute, General Electric Global Research, Kitware, and the US Department of Veterans Affairs. Through his 20 year career, he has contributed to and supported several open source projects including VTK, ITK, and OSEHRA. Rick received a B.S. and an M.S. in Computer Science from the State University of New York at Stony Brook, specializing in 3D biomedical imaging and visualization.

Ross Battaglia is a veteran of the United States Navy and a resident of Malta, NY. Ross served as an electrical operator onboard two nuclear powered vessels and completed his education in Nuclear Engineering Technologies. After leaving the Navy, Ross joined KLA as a field service engineer supporting leading edge inspection and metrology equipment. Over the past 18 years Ross has held various engineering, operations and leadership roles within KLA and he is currently serving as the Director of Field Operations for North America.

John Boucher has been involved with FIRST in one role or another for 21 years. Parent, Lead Mentor for FRC 237, Robot Inspector and Judge. John has been judging in the New England district for 5 four years. He has judged twice at the championship. His two children are both alumni of the FIRST program. His daughter was Chief Volunteer Coordinator for the FRC program for 5 years. She is now a solutions engineer at Salesforce. His son is a design engineer at Pratt and Whitney (UTC) and a mentor for FRC 237. John has a BFA from the University of Bridgeport. John has been with Beckson MFG for 40 years. Beckson is a manufacturer of plastic pumps and hardware for the chemical and recreational boating industry. He is currently the Technical Procurement Lead for their five divisions. He is also a principal at Applied Plastic Tech, an injection molding facility in Worcester, MA.

Robert Brennan enlisted in the U.S. Navy Submarine Force as a nuclear reactor operator. After serving seven years he honorably finished his service as a quality assurance supervisor for submarine repair activities, working across multiple ship classes and propulsion plants. After separating from the U.S. Submarine Force he joined semiconductor manufacturing as a field engineer for Tokyo Electron America where he was selected to be Engineer-in-Charge and Project Manager for the Single Wafer Deposition department. There he installed, maintained, modified, and repaired various engineering machines and processes from reactive ion etching to atomic layer deposition. Robert currently works as a Staff Equipment Engineer and Project Manager at GLOBALFOUNDRIES in Malta, New York. He has years of experience in the troubleshooting and repair of various atmospheric and vacuum manufacturing robots including those of Yaskawa, Kawasaki, Brooks Automation, and the JEL Corporation. Robert has a Bachelor's of Science in Electrical Engineering and has a career focus in power systems, robotics, and leading engineering projects.

Katy Butler is a Principal L&OD Specialist at GLOBALFOUNDRIES. She holds a BA in English from St. Bonaventure University, and a MS in Organizational Development from The Sage Colleges. In her role, she is program owner for multiple leadership development programs for managers and high potential employees. Her career has spanned several industries, including Fortune 500 companies, within the fields of semiconductor manufacturing, banking, healthcare, and retail. She has won several awards for her program design and facilitation and is currently exploring ways to create more engaging blended learning opportunities by incorporating new technologies into her instruction. In addition, she has a passion for travel and has lived and worked in both Europe and Asia. This is her first year as FIRST Robotics competition judge, and her second year as a FIRST Robotics volunteer.

Lynn DeRose has worked at General Electric's Global Research Center for 29 years and is a member of the Software Systems Technology Lab. She is currently working on developing technologies to enable the Industrial Internet of Things and Inspection as a Service. Her work is helping machines to become self and environmentally aware to enable GE's Brilliant Factories. She is currently working on the development of a system to digitize and optimize manufacturing of autologous medicine, specifically CAR T manufacturing. She is the project leader for RFID implementation at various GE businesses. Her formal education is in Chemistry but she has been working in the field of asset tracking, locating and condition monitoring for the past 18 years. Lynn has been the guest speaker at multiple international conferences, published several papers and filed more than 25 U.S. Patents. Lynn has been a volunteer for the FIRST Technology Challenge and the FIRST Robotics Challenge in the Greater Albany NY area for the past 6 years and recently started a Lego League Jr. team at GE Research.

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Wayne Gannett, P. E. is a Senior Water Resources Engineer with the Albany office of Bergmann Associates, PC. Prior to that, he was the Principal Hydraulic Engineer with the New York State Department of Transportation (NYSDOT). He supervised the Hydraulic Engineering Unit in the Structures Division for 11 years, where he was responsible for stream hydraulic and scour analysis for new and rehabilitated bridges, as well as special projects in stream stability and highway protection, and climate change adaptation for NYSDOT. He is a member of the Transportation Research Board (TRB) Committee AFB60 on Hydraulics and Hydrology, and the American Society of Civil Engineers (ASCE). Mr. Gannett holds a B.S. in Civil Engineering from the University of Massachusetts and an MBA from Rensselaer Polytechnic Institute.

Jeffrey Goldmeer is the Director of Gas Turbine Combustion & Fuel Solutions at GE Gas Power Systems. In this role he is responsible for the strategic development of gas turbine technologies supporting the use of alternative power generation fuels around the globe. His main focus in the last year has been on the use of hydrogen as a renewable, carbon-free fuel for power generation. Prior to this role, he was the manager of the Combustion Laboratory at GE's Global Research in Niskayuna, NY. Overall, Jeffrey has more than 25 years of engineering experience related to fuels and combustion systems, and has 11 patents on a range of combustion and propulsion technologies. Jeffrey received his Ph.D. in Mechanical Engineering from Case Western Reserve University; as part of his dissertation, he performed combustion experiments on board NASA's low-gravity research aircraft (aka the Vomit Comet). He received B.S. and M.S. degrees in Mechanical Engineering from Worcester Polytechnic Institute. When not working Jeffrey volunteers with local Boy Scouts, enjoys scuba diving and science fiction.

Yesenia Herarte is the Lead Supplier Quality Engineer at GE Power. A native of the Dominican Republic, Yesenia graduated with a B.S. in Mechanical Engineering and a Masters in Mechanical Engineering from City College, CUNY. She is a former Internal Vice President of the Latin American Engineering Students Association-Society of Hispanic Professional Engineers at City College, and currently an active member of General Electric Hispanic Forum (GEHF). A strong advocate for the advancement of the Hispanic Community, Yesenia has championed numerous FIRST activities and teams in New York City and Capital Region, inspiring hundreds of students into science and technology, particularly in South Bronx, Amsterdam, and Schenectady schools. Yesenia is an accomplished athlete, and a terrific volleyball player.

Martha McCormick is the recently-retired Director of Education for To Life!, a Capital Region Breast Cancer support organization. Previously she spent most of her career at Rensselaer Polytechnic Institute in professional student life positions, and as an instructor of professional and leadership development for Engineering and Management undergraduate students. She has been Director of Training and Consulting, as part of Capital Employee Assistance Program, providing specialized training, staff development and Human Resource Development support throughout the region. She holds a master's degree in Counseling Psychology and Student Development from the University at Albany SUNY.

Greg Mohr (known as "Doc") is an Advisor Engineer for the Naval Nuclear Laboratory. He currently works at the Knolls Atomic Power Laboratory in Niskayuna, NY, and served previously at the GE Global Research Center and GE Inspection Technologies. He holds a Ph.D. in experimental physics from Washington University in St. Louis, is a Fellow of the American Society for Nondestructive Testing and a member of the Nondestructive Testing Committee of ASTM International, and holds 15 US patents. He has significant technical experience in industrial x-ray nondestructive testing and imaging applications, and in the development of digital imaging, computed tomography, and filmless radiography products and technologies. "Doc" is dedicated to teaching and training the next generation of technical achievers, and has been active in FIRST Robotics since 2010.

Philip Mueller is the Knolls Laboratory Site Director at the Fluor Marine Propulsion Corporation Naval Nuclear Laboratory (FMP), for Knolls Laboratory. He brings 35 years of professional experience to the field. Previously, he was the Test Operations Manager and the Prototype Operations Manager at the Knolls Atomic Power Laboratory. He was the Plant Manager for Lockheed Martin Information Technology for six years. Mr. Mueller has a degree from the US Merchant Marine Academy.

Dr. Ted Nygreen is a retired computer scientist, CIO, corporate Managing Director, and college STEM Dean. Ted was VP of MIS at NBC, and then spent 15 years as Managing Director of an international management consulting firm. His corporate career continued with 12 years as General Manager of a broadcast software company with offices in 18 countries, until he retired and served as a dean in higher education. Ted earned a BS from MIT and Ph.D. from Princeton.

Ryan Oldaker is a team lead with ASML supporting GLOBALFOUNDRIES and IBM and has been with the company since 2006. His current role is leading the team managing the parts and tools deliveries for ASML in the eastern US. His previous project at GLOBALFOUNDRIES included overseeing EUV readiness at GF, the successful implementation of over 25 lithography and metrology machines and several major repairs and upgrades projects. Prior to moving to New York, Ryan led the introduction of NXT systems at IM Flash in Lehi, Utah. He also began his career with ASML as a service engineer in Lehi before becoming a project lead. Ryan is also a veteran of the Army having served in Iraq for Operation Iraqi Freedom. He has a Bachelor's of Science in Electronic Engineering from DeVry University.

Elizabeth Papa is a Manager of Automation at Regeneron Pharmaceuticals, Inc. and has been with the company since 2013. Liz graduated from the College of Saint Rose in 2008 with her Bachelors of Science in Biochemistry and minor in Computer Science. She later attended the Sage College of Albany to receive her Master's in Business Administration in 2017. Liz's primary focus at Regeneron is leading a team of 20+ Automation professionals to design, support, and maintain a series of Automated Manufacturing and Process Controls Systems which include chromatography and cell analysis. While Liz is building her team, she is also focusing on continuous improvement of these process control systems and policies. Liz had an interest in STEM early on and participated in Odyssey of the Mind, along with several science and math team competitions.

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Zhou Ren serves as senior Field Applications Engineer for KLA Corporation, responsible for the applications development of the products OCD, Film, RS and Thermal Probe in customer fields. Zhou Ren began his career in KLA Corporation in 2011, working on OCD (optical critical dimensions) modeling and analysis, to realize the precision measurement of the critical dimensions on FinFET 3D structures, which helps customer strategy making of on-line process control; working on the precision measurement of film stack thickness on HKMG gratings; working on the calibration and tool matching of OCD fleet in IC fabs. Zhou Ren has developed applications and provided solutions for customers in GLOBALFOUNDRIES, Micron, TOK, Toshiba, etc. Zhou Ren earned his Ph. D. in optical engineering from Tsinghua University, studying on lasers and precision measurement.

Paula Rosenberg is a Marketing/Communications professional who recently retired as Program Manager of the New York City office of the New York State Energy Research and Development Authority (NYSERDA). In her 25 years with NYSERDA, she worked in a variety of positions, ranging from writing and editorial, to project management, assistant director of the NYC office, and as NYSERDA representative to the Tech Valley Angel Network (TVAN). At TVAN, Paula vetted companies and entrepreneurs with the potential to participate in NYSERDA's research and development or deployment programs. Her background includes more than a decade of owning a marketing firm and a more than eight years with General Electric's Corporate Communications and Marketing Operations, working with all departments in the Power Systems Sector and as editor of "Electric Forum" magazine. Paula holds a BA and MLS from the State University of New York at Albany, and is currently creative director of Art & Design.

Subhrajit Sahoo is a Test Chip Design Automation Engineer at GLOBALFOUNDRIES, Malta,NY. He had been designing test structures on cross-technology nodes for the past 18 months. He designs and supports the designs for all the technologies supported and differentiated by GF. He is responsible for design and verification of circuitry for all the technologies both in automated as well as custom design technologies. He has a Master's degree in Electrical and Electronics Engineering majoring in Digital VLSI Design from the University of Southern California, Los Angeles and his Bachelor's degree in Electrical and Telecommunication Engineering from Veer Surendra Sai University of Technology, Odisha, India.

Dr. Tobi Saulnier is the founder and CEO of 1st Playable Productions, a game development studio founded in 2005 that creates games for handheld, console, web and mobile platforms, for both well-known entertainment brands as well as games for education and social change, including retail and research titles. The studio is also known for innovative gameplay, including networked features, downloadable content, and integration of real and virtual worlds. Before joining the game industry, Tobi managed R&D in embedded and distributed systems at GE Research and Development, where she earned 16 patents and wrote articles appearing in over 25 professional publications. She earned her BS, MS, and PhD in Electrical Engineering from Rensselaer Polytechnic Institute and has been a volunteer and judge for the FIRST Robotics Challenge since 2014.

Andrea Schmitz has 30 years of R&D experience, with 26 of them at General Electric's Research Center. She's currently working as a Senior Engineer focused on system design and the development of software and electronics for Aviation Engine controls and Additive manufacturing. Andrea has worked in a variety of research areas including polymer modeling, non-destructive testing and inspection systems for Aviation and industrial applications and systems and detectors for healthcare. Andrea led several government sponsored healthcare system and detector development programs focused on applying these technologies to Breast Cancer detection using Digital Breast Tomosynthesis, increasing imaging access with a portable x-ray system for military or rural hospital use and translating portable technology to the industrial world through development and modification of existing products. She is a co-inventor on 5 patents and has over 15 publications and several conference presentations to her credit. Andrea has been a volunteer for the FIRST Technology Challenge and FIRST Robotics Challenge judge for the past 4 years. She is active and passionate about STEM advocacy; this includes mentoring in local schools and providing consulting and acting as a Technical Advisor on the board for the not-for-profit STEM outreach program, Rise High. Andrea earned her B.S. and M.S. degrees in Computer Science from Rensselaer Polytechnic Institute.

Anvitha Shampur is a Testchip Design Automation Engineer at GLOBALFOUNDRIES, Malta, NY. She has been designing SKILL based automated layouts for test structures across different technology nodes since the past year and a half. Her main contributions include the design of RF devices like Inductors, Capacitors, Transmission Lines and different types of FETs. She performs simulations on the electrical components of the Electrical Overlay Designs. She enjoys her work as an automation engineer and is passionate about exploring new tools and methodologies that could push the boundaries of what GLOBALFOUNDRIES offers in terms of design capabilities. She has a Master's degree in Electrical and Computer Engineering from the University of Massachusetts, Amherst in May 2017.

Dr. William M. Sudduth (known as "Mac") is the president of Museumhelpline.com. He spent 42 years building and directing hands-on science centers (museums). Before that he worked for the government as a chemist. He has built and or directed science centers in Oklahoma City; Durham, North Carolina; Louisville, Kentucky; Vancouver, British Columbia; Dallas, Texas; Atlanta, Georgia; and Schenectady, New York (He retired in February 2018). He had served as project manager for two national traveling exhibits and an advisor to 4 IMAX films including one produced by Disney. In his retirement he continues to consult for museums, schools and nonprofits interested in STEM education. He also serves a grant reviewer for NASA, NSF, IMLS, and NEH.

Gene Terwilliger is the Enterprise Integration Director for the Naval Nuclear Laboratory. He has been at Knolls Atomic Power Lab in Niskayuna, NY since 1989. In his current role, he is responsible for Information Technology, Materials Management, Procurement, Security, Communications, Project Management and Continuous Improvement. He previously served as Advanced Technology Programs Manager, responsible for thermal hydraulics and structural development, advanced concepts, and scientific programming. Gene also is the Naval Nuclear Laboratory's Spokesperson. He earned B.S. and M.S. degrees in Mechanical Engineering from Union College and a MBA from Rensselaer Polytechnic Institute.