

## **Presenter Biographies: April 22<sup>nd</sup>, 2016**

### **Mrs. JoAnn Archer, STEM Teacher, Stenstrom Elementary**

JoAnn Archer is the STEM teacher at Stenstrom Elementary in Oviedo, FL where she is responsible for implementing an engineering based curriculum for all students as they rotate through the STEM Lab. Before starting her second career as an educator, JoAnn spent 11 years as an engineer for NASA at the Kennedy Space Center. JoAnn's work at KSC spanned the Space Shuttle, Spacelab, and International Space Station programs where she served as an Industrial Engineer, Payload Operations Engineer, Middeck Experiment Engineer, and a Launch Site Support Manager. While working for NASA, Mrs. Archer also supported NASA's educational outreach program.

JoAnn is passionate about bringing her engineering experience to the elementary classroom. Her goal is for all students to have engaging, real world problem solving experiences in the STEM Lab and to broaden the spectrum of students who pursue STEM related careers in their future. When not teaching, JoAnn spends her time with her family of 4 active girls ranging in ages 5 – 15 and traveling to historic places.

### **Mrs. Letizia Branz, Secondary District Mathematics Coach, Orange County Public Schools**

Letizia Branz is a Secondary District Mathematics Coach for Orange County Public Schools. Her academic background consists of a bachelor's degree in Civil Engineering and a Masters degree in Secondary Mathematics Education, both of which were attained at the University of Central Florida. Her passion for STEM in public education is rooted in her love for engineering, and her belief in its high effect on student achievement. As a coach for OCPS, she focuses on raising student engagement by helping teachers implement modeling mathematics problems into their lessons. In supporting this type of instruction she hopes for students and educators to understand that in today's world, mathematics and science work in harmony to create globally competitive citizens that can implement their respective concepts into effective and efficient engineering design and technology.

### **Dr. Malcolm Butler, Professor of Science Education, University of Central Florida**

A former middle and high school mathematics and science teacher, Malcolm B. Butler, Ph.D., is an Associate Professor of Science Education in the School of Teaching, Learning and Leadership at the University of Central Florida, in Orlando. His teaching and research interests include multicultural science education, science and underserved populations, pre-service and in-service science teacher education, and physics education. His scholarship has been published in journals such as the Journal of Research in Science Teaching, the Journal of Science Teacher Education, Science Activities, the International Journal of Environmental and Science Education, and the Journal of Multicultural Education. His work has been generously supported by the National Science Foundation, the Environmental Protection Agency and the US Department of

Education. Dr. Butler is one of the authors of National Geographic Learning's National Geographic Science, a national elementary science curriculum program. He is co-author of the book, Teaching Science to English Language Learners, and co-editor of the book, Multicultural Science Education: Preparing Teachers for Equity and Social Justice.

**Kenneth Church, Ph.D., CEO, nScript Inc.**

Dr. Church received Bachelor degrees in Physics and Electrical Engineering from Oklahoma Christian University in 1988 and 1989 and his Masters and PhD in Electrical Engineering from Oklahoma State University in 1991 and 1994. He has worked on a number of programs for DARPA, NSF, Air Force, Navy, Army and NASA. He is President and CEO of nScript, Inc., a capital equipment company that sells advanced 3D Printers for both electronics and structures. Dr. Church and his university partners have published numerous times in the area of 3D Printed Electronics and including complex RF electronics. He has more than 75 publications, more than a dozen patents and patents pending and numerous invited talks.

**Mr. Jim Clamons, VP Engineering, Harris Corporation**

Mr. Clamons is a Vice President of Design Engineering Harris Government Communications Systems (GCS). He is responsible for talent management and professional growth of over 3000 GCS engineers. He joined Harris in 1977 and has held positions of increasing responsibility throughout his career in the areas of planning, organizing, managing, and directing and plays a key role in successfully achieving financial and business objectives. Mr. Clamons received both bachelor and master of science degrees in mathematics and computer science, respectively, from Purdue University.

He is a member of the Aerospace Industries Association (AIA), Board of Directors on the Central Florida STEM Education Council (CFSEC), Florida State University College of Engineering Dean's Advisory Council, the FSU Computer Science Advisory Council, and Purdue University's Computer Science Corporate Partners Program. Mr. Clamons is currently serving as Chairman of the Board of Directors of the Space Coast Early Intervention Center (SCEIC).

**Mrs. Luci Coker, Magnet Facilitator, SCPS**

With ten years of experience in developing and marketing magnet programs, Luci Coker is currently the Magnet Facilitator for Seminole County Public Schools where she supports the 12 magnet programs offered in Seminole County.

Working through the Choices Department, she markets and recruits students for the elementary, middle and high school magnet programs. Through print, website, social media, community events, school visits, tours and magnet night, students are made aware of the innovative, theme-based learning opportunities available to kindergarten through grade twelve students in Seminole County. As a result, the magnet program recruiting events and enrollment

grew more than 10% over the prior year with 90% of the families crediting the postcard and booklets for garnering their interest.

Luci presented at the Project Lead the Way State Conference, International STEM Education Association national conference and the International Technology and Engineering Educators Association national conference.

Luci serves as a sponsor for the award winning BETA Club and SECME club and advisor for the Technology Student Association at Milwee Middle School Pre-Engineering Magnet.

Luci received a B.A. in Spanish Education from Mercer University and a M.Ed. from Georgia State University. She has over 22 years of educational experience from Pre-K to College instruction and administrative experience. She is a member of the Society of Women Engineers, Magnet Schools of America, Technology Student Association, and the International Technology and Engineering Educators Association.

### **Jack Colpas, "The Rocketman", Reach for the Stars ~ National Rocket Competition - STEM Educational Outreach**

Jack & Kathy Colpas, co-directors, Reach for the Stars ~ National Rocket Competition have over 50 years experience as public school educators.

Our goal is to give kids the unique educational experience of building and launching a solid-fuel powered model rocket.

Our mission is to keep alive the memory of the first Teacher-in-Space, Christa McAuliffe.

Our purpose is to foster an interest in model rocketry, STEM subjects and aeronautics.

In over 30 years teaching science, I never found anything that excites kids more than rocketry. I have been sharing my knowledge through teacher workshops since 1996. Come and find out why they call me, "The Rocketman."

### **Mrs. Carol Craig, CEO, Craig Technologies**

A self-described accidental entrepreneur and Unconventional CEOTM, Carol Craig is Founder and Chief Executive Officer of Craig Technologies, headquartered in Cape Canaveral, FL. Growing Craig Technologies from one person in 1999 to over 400 associates today with steadily increasing revenues, Craig leads nationwide operations with employees in over 20 different states.

Craig Technologies was listed as one of Florida's Best Companies to Work For in 2011 and 2013 by Florida Trend magazine. As CEO, Carol oversees corporate operations to ensure quality service-delivery for her commercial and government customers, offering multi-disciplinary engineering and integration, software development, training and courseware development, information technology, modeling and simulation, logistics, and launch support.

In January of 2013, she opened the 161,000 sq ft Craig Technologies Aerospace and Defense Manufacturing Center which currently offers high-tolerance precision manufacturing, specialty production, design engineering, and test and evaluation services in support of customers such as the Department of Defense, NASA, Boeing, SpaceX, Space Systems Loral, Skybox, Sierra Nevada Corporation and Conoco Phillips to name just a few.

Craig's military experience includes active duty as a P-3C Orion Naval Flight Officer. She holds a BA in Computer Science from Knox College, a BS in Computer Science Engineering from the University of Illinois, and an MS in Electrical and Computer Engineering from the University of Massachusetts at Amherst. Ms. Craig is pursuing a PhD in Systems Engineering at Florida Tech in Melbourne, FL.

In 2015, Carol was selected as the Small Business Administration's Small Business Person of the Year for the State of Florida and South Florida District, and was recognized as the national first runner-up finalist in Washington, DC. The National Defense Industrial Association (NDIA) recognized Carol with the Kathleen P. Sridhar Small Business Executive of the Year Award in 2013, and she received the prestigious 2013 HENAAC Entrepreneur of the Year Award by the Great Minds in STEM. In 2008, the Society of Women Engineers recognized Carol as Entrepreneur of the Year.

Carol serves as a member of the US Commerce Secretary's Manufacturing Council, is the Enterprise Florida Executive Committee Military Business Unit Liaison, and is a board member with the National Space Club Florida Committee, Manufacturers Association of Florida, Florida Chamber of Commerce, and Florida High-Tech Corridor Council. She also serves on the boards of directors for Nemours Children's Hospital in Orlando, and the Maxwell C. King Center for the Performing Arts in Melbourne, FL.

Carol and her husband, CAPT John W. Craig, USN, a former F/A-18 pilot who now flies for JetBlue Airways and is a Navy Emergency Preparedness Liaison Officer (NEPLO), have two children. In response to her son's diagnosis with Prader-Willi Syndrome in 2001, Carol is Founder of the Danny Craig Foundation, aiming to raise and administer funds for multiple organizations that focus on researching children's medical disorders.

### **Mrs. Sue Curry, IE2 Teacher, Braden River Elementary School**

Mrs. Curry has a Bachelor of Science in Secondary Education from the University of Wisconsin – Madison. She has been instructing elementary students for eleven years and high school students seven years prior. Since 2013, she's been teaching a STEM program for the Manatee County School District - Inspiring Elementary Engineering (IE2). IE2 is a discovery-based, inquiry process learning curriculum in which students use critical and creative thinking skills to solve real-world problems through the Engineering Design Process. Student engagement and learning occurs with targeted, standards-based, hands-on challenges.

Mrs. Curry is a member of NSTA, NCTM, and FACTE. In 2009, she was selected from an applicant pool of over 2500 teachers nation-wide to be one of thirteen Intermediate grade level teachers from Florida to attend the Mickelson Exxon Mobile Teacher's Academy at the Liberty Science Center in NJ/NY. There she learned about and adopted the 5E model of inquiry instruction. She integrated the model into the 4th grade classroom. Science and Social Studies became the lenses of inquiry learning with informational text supports. When the opportunity came to become the elementary engineering teacher as part of her school's K-5 Fine Arts rotation, she leaped at the chance to construct learning opportunities with the engineering design process at the core of instruction.

**Dr. Melissa Dagley, Executive Director, Initiatives in STEM, University of Central Florida**

Dr. Melissa Dagley operates as the Executive Director of Initiatives in STEM (iSTEM) at UCF where she serves as Director and Co-PI of the NSF-funded STEP 1a and 1b programs "EXCEL:UCF-STEP Pathways to STEM: From Promise to Prominence" (2006-2012) and "Convincing Outstanding-Math-Potential Admits to Succeed in STEM (COMPASS)" (2012-2017). She is currently a Co-PI for the industry funded women's mentoring initiatives Girls EXCELLing in Math and Science (GEMS) and WISE@UCF. Dagley has extensive experience in directing undergraduate and pre-college STEM education programs and leads a fellows program for faculty interested in STEM education and education research. Her research interests lie in the areas of student access to education, sense of community, retention, first-year experience, living-learning communities, and persistence to graduation for students in science, technology, engineering, and mathematics programs.

**Miss Anja Dragic, Teacher, Stenstrom Elementary**

Anja Dragic is a First Grade teacher at Stenstrom Elementary in Seminole County. She received her BS in Education from Indiana University-Indianapolis with a focus on Urban Education. She has taught students in grades K-4 with various backgrounds in both Indiana and Florida. Working with students through technology in STEM is an exciting educational endeavor for her. When she is not teaching, Anja enjoys being a new Florida resident. The beach and theme parks still have not lost their appeal.

**Ms. Kirsten Dreggors, Director, Vehicle Engineering - East Coast, Northrop Grumman Corp**

Kirsten Dreggors is the Northrop Grumman director for East Coast Vehicle Engineer & Products with responsibility for leading the Vehicle Systems, Electrical Systems, Structural Design, and Structural Analysis departments in Melbourne & St. Augustine.

She joined Northrop Grumman as a Systems Engineer in 1997 supporting Joint STARS. Since then, she has held positions of increasing responsibility within Vehicle Engineering on a variety of programs including Joint STARS, E-10A, Global Hawk, F-35, Fire Scout, Firebird and numerous NCTA development projects. In her support of both manned and unmanned platforms, she has experienced many of the challenges associated with a program's lifecycle from conceptual

design to program capture, through various stages of development, integration, and into sustainment.

Kirsten earned a bachelor's degree in aerospace engineering and a master's degree in mechanical engineering from the University of Central Florida (UCF).

**Ms. Alicia Foy, STEM Teacher, Palm Beach County, Florida**

Alicia Foy is currently a 5th grade elementary STEM teacher with certifications in STEM Integration, STEM Coaching, ESOL, Gifted, Middle-school General Science, and High-school Biology. She is an avid supporter of the STEM movement across the country and has received the Governor's Shine Award for STEM teaching. She is one of two Elementary Science teachers nominated in the state of Florida for the Presidential Award for Elementary Math and Science Teachers. Crosscutting concepts and science and engineering practices used with multiple K-12 standards will be discussed through her Electric City project.

**Mrs. Robin Guenther, Elementary STEM Teacher, STEM Learning Resource, Celebration School K-8**

Robin Guenther is an Elementary STEM Teacher and STEM Resource Specialist for Celebration School in Osceola County. In addition, Robin is co-advisor to the school's Southeastern Consortium of Minorities in Engineering (SECME) competition club as well as the middle school Technology Student Association (TSA) competition club. With 25 years of teaching experience and a B.S. and M.Ed. in Education from Rhode Island College, Robin has worked at all levels from preschool to a high school Alternative Learning Program. While in her current position, she developed a K-5 STEM curriculum, including comprehensive STEM units that uncover both Next Generation Science Standards (NGSS) and Florida State Standards. She has also presented her work at the National Blue Ribbon Schools of Excellence Conference.

**Penny Hall, Education Coordinator, Florida Solar Energy Center**

**Ms. Mary Lynn Hess, K-5 STEM Resource Teacher, Goldsboro Elementary Magnet School**

Mary Lynn Hess is a K-5 STEM Resource Teacher at Goldsboro Elementary Magnet School. She has spearheaded programs that include 750 square foot garden on the school campus and raised over "\$SpeakerBio">0,000 in grants to enhance the programs she organizes. Her accomplishments include being a featured speaker at the state and international levels, presenter at EPCOT's Flower and Garden Festival, a book reviewer for National Science Teachers Association, and being a featured teacher on PBS for "How Kids Learn in the Modern World."

**Mr. Ronnie King, Founder, [www.UrbanProgramming.com](http://www.UrbanProgramming.com)**

Ronnie King is a Software Engineer and owner of Scratchwerk, LLC. Scratchwerk provides web development and branding services for businesses and organizations. Ronnie King is a Certified Java Programmer and Scrum Master, with over a decade of software development experience in multi-tier, intranet and internet applications using J2EE, MEAN, and LAMP technologies. Ronnie has taught Object Oriented programming at both the secondary and collegiate levels, and specializes in exposing software engineering to underrepresented communities. He is the organizer of the Annual Jax Youth STEM Conference, and adviser for the Jacksonville National Society of Black Engineers Jr. Chapter. He is also the founder of [www.UrbanProgramming.com](http://www.UrbanProgramming.com), which provides online courses for individuals and students interested in web programming. Ronnie King has held leadership positions in 100 Black Men of Jacksonville, National Pan-Hellenic Council and the Jacksonville Urban League. He is an active community volunteer, and currently serves as the Vice-Chair for the Jacksonville Board of Library Trustees. He also serves on the board for the Jacksonville Public Education Fund, Mentoring Families and Kids, and the MyVillage Project Community Fund. Ronnie studied at the University of Florida, where he played basketball for the Gators and joined Omega Psi Phi Fraternity. He holds a Bachelors of Science in Computer Science from the University of North Florida, and is the proud father of Jada and Bostyn with his wife Casey.

**Ms. Rachel Knight, Teacher, Orlando Science Elementary**

Rachel Knight teaches 2nd grade at Orlando Science Elementary School. This is her 15th year teaching, with 12 of them being at a science school. She graduated from the University of Tennessee with degrees in Human Learning and Public Relations and also has a Masters degree in Educational Leadership from Capella University.

**Mrs. Amy Kopach, Teacher, Rymfire Elementary**

Amy Kopach has a Bachelor's in Speech Language Pathology and Audiology from the University of Georgia. She began her education career as a Kindergarten teacher, then moved to fifth grade four years ago. Amy Kopach currently teaches English / Language Arts and Social Studies in Flagler County Schools. She championed for and implemented a Blended Learning 1:1 iPad classroom. Amy and three other fellow educators designed a non-traditional classroom environment so that distinct learning spaces were designed to encourage collaboration and technology implementation similar to 21st century companies such as Microsoft and Google. She believes that this encourages creativity and teamwork which is essential in the thematic lessons she and her fellow Co-teacher employ. Amy shares effective use of technology practices through trainings she has designed throughout the Flagler County District. She empowers teachers to use technology for instruction rather than solely research and assessment. The Future Problem Solving program established by Dr. Paul Torrance is interwoven into her classes in addition to a before school club to extend students' reasoning, writing, and application skills. The topics such as Surveillance Society and the Global Workplace provided by this program often establish the topics for her thematic units.

**Ms. Kylie Koscoe, Owner, Mad Science of NE Central Florida**

Kylie Koscoe graduated with a BA in Theatre from Hollins University. She has performed nationally with Missoula Children's Theatre and throughout Central Florida with Sea World, Orlando Rep, Women's Playwright Initiative, Storybook Theatre, and Florida Children's Repertory Theatre. Almost 10 years ago, she started working as a performer for Mad Science of NE Central Florida, and is now the owner, with a franchise spanning all of Central Florida. Mad Science of North East Central Florida has won numerous awards, including the Business Innovation Award for 2014 from the Oviedo/Winter Springs Chamber, the Gold Daisy Award for Favorite Children's Birthday Party Location for Oviedo Macaroni Kid, and many "Best Of" awards.

Mad Science provides fun and hands-on Science programs for kids aged 2-14 and is the premier Science provider, sparking children's imagination and increasing scientific literacy throughout the world. Our mission is to spark the imagination and curiosity of children everywhere! Our goal is to provide children with fun, entertaining, and exciting activities that instill a clear understanding of what science is really about and how it affects the world around them.

**Annmargareth Marousky, Computer Science Instructional Specialist, Broward County Public Schools**

**Dr. Lester Morales, NASA KSC Education Specialist, NASA Kennedy Space Center**

Dr. Lester Morales is the Education Professional Development Specialist at Kennedy Space Center and serves the states of GA and FL and the US territories of Puerto Rico and Virgin Islands.

Previously, Dr. Morales worked with the NASA Aerospace Education Services Project and the NASA INSPIRE project. Dr. Morales taught middle school science, anatomy, physiology, algebra, and geometry for the Miami Dade County Public School System in Miami, FL. He holds a current Florida teaching certificate in mathematics and biology.

Dr. Morales received a Bachelor of Science degree in Biological Sciences from Florida International University and a Medical degree from American University of the Caribbean School of Medicine.

**Ms. Jaclyn Myers, Teacher, Indian Trails Middle**

Jaclyn Myers, Renewable Energy teacher at Indian Trails Middle School in Winter Springs, Florida. I have been teaching for 7 years from inner city Philadelphia to Central Florida. For the past 6 years I have focused on middle school math education. This past year I was granted an opportunity to take on a CTE role teaching Introduction to Energy. I eagerly jumped at the opportunity to teach math through STEM. I really enjoy my new role and the freedom that I have to give students opportunities to collaborate, design, re-design and solve real-world

problems. I invite you to come experience a renewable energy lesson and learn how you can use the data collection to make learning meaningful and fun while still rigorously challenging students!

**Mr. Hank Okraski, NCS Board Member, National Center for Simulation**

Henry (Hank) Okraski is a simulation consultant for the modeling and simulation industry. After 32 years of government service, he retired and is very active as a volunteer with K-12 education. While with the Navy and member of the Senior Executive Service, he was the Director of the Research and Engineering Department, Deputy Technical Director and Chief Scientist of the Naval Air Warfare Center Training Systems Division. He served on NATO Study Groups and received several awards including the Navy Meritorious Service and Navy Superior Service Awards. Named Federal Engineer of the Year by the National Society of Professional Engineers.

He is a founding member of the National Center for Simulation (NCS) and continues to serve on the Board of Directors. He is Chairman of the NCS Education and Workforce Development Committee. Led Task Force in developing a four year high school curriculum in modeling and simulation and instituted a Modeling & Simulation Certification Program for high school students and teachers. Mr. Okraski is a Registered Professional Engineer and Certified Modeling and Simulation Professional. Formerly, adjunct faculty member at Rollins College and University of Central Florida. He is the author of “The Wonderful World of Simulation”.

Mr. Okraski has a bachelors degree in electrical engineering from Clarkson University in Potsdam, NY and a masters degree in systems engineering from the University of Florida. He received the Golden Knight Award from Clarkson, the highest alumni award given by the university. In 2015 he was inducted into the Modeling & Simulation Hall of Fame. He and his wife, Judy, live in Winter Park, Florida. They have six children and fourteen grandchildren.

**Mrs. Danielly Orozco-Cole, Curriculum Manager, FLATE - Florida Advanced Technological Education Center**

Danielly Orozco, M.S. is the curriculum manager of the Florida Advanced Technology Education Center-FLATE, a National Science Foundation Center of Excellence in high-technology education focused on manufacturing.

B.S. and M.S. degrees in Sanitary Engineering and Environmental Engineering.  
Her professional experience features more than ten years as a researcher focused on design, construction, and monitoring of prototype & pilot projects with the University of South Florida.

Mrs. Orozco has been working with FLATE for more than 5 years as a subject matter expert. In her role as curriculum manager, Danielly ensures that the curriculum supports STEM standards and aligns with the Manufacturing Skills Standards Council (MSSC), supports Florida engineering

technology program with focus on student awareness and increase recruitment rates, helps to support FLATE's exemplary industry partnerships, workforce opportunity, and educational synergy throughout the state of Florida by connecting industry and workforce needs to targeted educational endeavors at many community and state colleges across Florida.

**Lynda Roche, Teacher, Stenstrom Elementary**

Lynda Roche is a Kindergarten teacher at Stenstrom Elementary in Oviedo, FL with over 20 years of classroom experience. She led the charge to cultivate a school-wide STEM initiative, providing support & writing grants along with facilitating professional development for all staff. Lynda recognizes the importance of making students STEM-literate in order to prepare them to be the next generation of technologists, innovators, designers, and engineers who can compete in a global economy. In order to create a robust and open pipeline for STEM, Lynda believes we MUST begin at the elementary level.

Lynda is a member of NSTA and ITEEA, where she presented in 2014. She currently serves on the SCPS Computer Science Task Force and coding writing teams for kindergarten and first grade. Lynda was an SCPS semi-finalist for 2014 teacher of the year.

**Ms. Hollie Rogers, K-12 District STEM Resource Teacher, Ronald Blocker Educational Leadership Center**

She started her career as most elementary teachers do, teaching all five subjects. She quickly figured out where her passion stemmed from. She thrived providing her students with real world, hands-on, problem-based learning. Not only were her students engaged but her passion was renewed from day to day teaching. By her fourth year teaching she was bit by the science bug. She started attending every science and STEM professional development that she could and eventually earned her master's degree in Science Education. Now she works for her district to empower the teachers with the knowledge and confidence to embrace STEM activities. I cannot wait to bring my passion of engineer design challenges to you.

**Mr. Tim Ruddy, Teacher, Rymfire Elementary**

Tim Ruddy holds a Masters of Education in Elementary Education and has taught 4th - 6th grades for the last 16 years, specializing in math and science instruction. Tim has long utilized Kagan principles, Learning Focused high yield strategies and technology in his 1:1 iPad class. He currently co-teaches in a Blended Learning setting in Flagler County. He led an initiative to create an active learning environment replacing "traditional" desks for standing desks, collaborative circles, and gaming chairs so all students work in their own personal space. Students learn by a combined use of technology, small group activities, whole group lessons and hands-on activities. Tim also has extensive experience as a technology implementation trainer for the LMS system known as Schoology. The Future Problem Solving program established by Dr. Paul Torrance is interwoven into his classes in addition to a before school club to extend students' reasoning, writing, and application skills.

On a personal level, Tim has three beautiful daughters; Kyleigh, Jady and Lyla. He is married to Janie Ruddy, a fellow educator who also serves as the Academic Coach at the school he teaches at, which makes for lively dinner conversations at home!

**Ms. Susan Schleith, Program Director K-12 Education, Florida Solar Energy Center**

Susan Schleith directs the K-12 education programs at the Florida Solar Energy Center (FSEC). She has worked at the Florida Solar Energy Center for over 20 years with a mission to increase energy literacy throughout Florida by informing K-16 educators and the public of the Center's research. Her implementation plan addresses three areas: curriculum and instruction, professional development for teachers and student programs and events. Through her efforts eight K-12 curriculum units have been compiled, covering the areas of solar, hydrogen, biofuels, energy efficiency and conservation, climate change and environmental issues. Ms. Schleith also managed the SunSmart Schools Emergency Shelter program, a "SpeakerBio">0 million dollar statewide effort to install solar electric panels on over 130 schools and provide curriculum and instruction to faculty within those schools.

She is also a founding member of the Space Coast Science Education Alliance (SCSEA), a gathering of institutions dedicated to the enhancement of science literacy and STEM education. The group has developed numerous programs including: Exemplary Science Teacher Awards, Free Speaker Series, Brevard Research Rules and Aspiring Scientist Award. She has also worked on the following programs: Florida Space Coast Clean Cities Coalition, Alternative Energy Banner Center, Florida Middle School Energy Education Project, East Central Florida Environmental Education Service Project, Studies in Solar Energy and Exemplary Projects in Energy and Conservation (EPEC) Awards.

**Mrs. Elaine Schomburg-LaFleur, Project Manager, Walt Disney World**

Elaine Schomburg-LaFleur is a Project Manager at Walt Disney World. She has a degree in Mechanical Engineering from the University of Houston and a MBA from Rollins College, as well as a licensed professional engineer in Florida. Elaine is the Vice President of Professional Development for the Central Florida Society of Women Engineers chapter and on the board for the PACE Center for Girls Orange.

**Mrs. Debbie Smith, Inspiring Elementary Education - IE2 Teacher, Freedom Elementary**

Mrs. Smith, a graduate of Florida State University has been instructing elementary children for 29 years. However, the last 9 have been spent teaching and developing a STEM program for Manatee County entitled Inspiring Elementary Engineering (IE2). IE2 is a discovery-based, learning program in which students use critical and creative thinking skills to solve real-world challenges through the Engineering Design Process using a standards-based, hands-on approach.

Being the lead teacher for IE2, her class is considered a model program for the district. She is frequently asked for advice, or has colleagues, administrators, and FL DOE touring her classroom looking for implementation ideas to establish a successful STEM/IE2 Program in their own counties or individual schools.

She has also formed one of the first elementary TSA Teams in the state of Florida. This select group of 5th graders compete in several local competitions throughout the county during the school year.

Mrs. Smith is a current member of FAST, FACTE, and ITTEA. While a member of ITTEA, she was presented with the National "Program Excellence Award" in 2011 and has also received two of Manatee County's Excellence in Education Awards in 2012 and 2016. She has presented at many county and state organizations as well, showcasing the program's dynamics.

Her ultimate goal is to motivate and inspire students to continue their interest in the engineering profession well after they leave the elementary level.

**Mrs. Amanda Soto, P-SELL Coordinator, Orange County Public Schools**

Amanda Soto is the P-SELL (Promoting Science Among English Language Learners) Coordinator for Orange County Public Schools. She has worked in Osceola and Orange County as a teacher in the grade levels 5, 6, 7, and 8 with a focus on math and science instruction. Amanda previously was a District Math and Science coach for Orange County Public schools working with grades K-5 on engaging and standards based instruction. She holds various FLDOE certifications in K-12 science education and is Gifted and ESOL endorsed. Amanda graduated from the University of Central Florida with a B.S. in Psychology and a M.A. in Applied Learning and Instruction. She is currently pursuing an Educational Leadership Certificate from Stetson University. Outside of work Amanda is an accomplished athlete racing Ironman Florida 2015 and participates locally in the Clermont Sprint Triathlon series.

**Mrs. Nicole Spain, Robotics and Earth Science Teacher, Indian Trails Middle School**

Nicole Spain has ten years of teaching experience. She taught science as an elective teacher at Hamilton Elementary for five years. Then, she became Hamilton's Elementary Math and Science Coach, where she worked with teachers and students to integrate science and math into their curriculum. Shortly after, she completed her Master's degree with the NASA Endeavor Program and Adams University in STEM Curriculum. As part of this program she did Action Research on the Benefits of Engineering with racial diverse students, which she presented at the NSTA National Conference in 2013. In 2013, she completed her General Science 6-9 certification and moved to teaching Physical Science at Indian Trails Middle School while incorporating engineering into her science curriculum. Finally, in 2015 she passed the Technology 6-12 Certification Exam and began teaching Robotics and Earth Science at Indian Trails Middle School.

## **Mrs. Lindsey Spalding, Modeling and Simulation Lead Teacher, Hagerty High School**

“I do the things I cannot do in order to learn how to do them.” Pablo Picasso

Lindsey Spalding graduated from Seminole State College with an A.S. in Environmental technologies and then pursued a path to Stetson University in Deland Florida where she earned a B.S. degree in Environmental Science and Geography. She is fascinated with the existence of our cosmos and finds the physics of nature and how humans interact within it interesting and inspiring. After graduating Stetson, Lindsey began a 16 year to date teaching career, starting with middle school science at Rock Lake in Longwood Florida. She enjoyed teaching using STEAM strategies (Science, Technology, Engineering, Art & Math) and being a curriculum leader for the school's science department. Teaching middle school science was a great creative outlet (Lindsey is very curious in general and likes to try things from multiple perspectives). After working on action research projects with teachers in various classrooms and schools, Lindsey started to realize that STEAM education was not equal for all students. Teachers have minimum access to current and advanced technologies or lack knowledge of how to effectively facilitate learning using interdisciplinary (STEAM) strategies. Lindsey knew early on she wanted to do educational research and teach educators how to motivate and engage students in STEAM learning. Lindsey decided to travel a pathway toward teacher leadership by completing a Master in Teacher Leadership for Science Education at UCF. While finishing her leadership degree at UCF, Lindsey was presented with an opportunity to build a 4-year Modeling and Simulation Program of Emphasis at Hagerty High School in Oviedo. This presented an opportunity for teaching and learning from a Career Technology Education perspective rather than academic science. After spending the first year working with the National Center for Simulation (NCS), Seminole County Public Schools (SCPS) and many industry experts, Lindsey began learning what drives a career in Modeling and Simulation technologies and the different skill sets needed to be successful in the industry. Lindsey earned an Industry Certification in Modeling and Simulation sponsored by NCS and began incorporating new software programs (all free for education) and other technologies for the students to use during this second year of teaching Modeling and Simulation. The fun starts with all of the STEAM learning that can happen with students when using Modeling and Simulation concepts and tools to solve real world problems, (e.g. world energy consumption). Students are motivated to solve energy problems that will impact their futures whether it is in housing, transportation, food production, homeland security and more. “It has to be about the learning experience!” Lindsey is able to facilitate a diverse student centered learning environment where all students can successfully learn through hands-on experiences whether the students are designing and building 1:10 scale RCA cars to run on Hydrogen power, fully sustainable micro-homes, new or improved ways to grow and monitor food production to learning how to apply virtual physics to simulated actions of running the world on alternative energy sources. After completing the process of building a sustainable Modeling and Simulation Program, Lindsey looks forward to traveling down her next pathway towards her doctorate in STEAM education and working with teachers, students and the district to improve infrastructure and build advanced technology learning labs where STEAM learning can be practiced using advanced technologies needed to help our students be successful in their future careers.

**Mr. Randy Stowers, School Improvement Specialist, FL DOE**

Randy Stowers is a School Improvement Specialist for Region IV of the Florida Department of Education Bureau of School Improvement. Mr. Stowers is a lifelong educator as a teacher and an instructional coach for both elementary and middle schools. His current position affords him the opportunity to work with school and district leaders in an effort to develop systems leading to improved instruction and opportunities for students. He is passionate about developing seamless cross-content integration that goes beyond reading non-fiction texts in reading class. This leads him to a firm belief that STEM should be forefront in the effort to have a cohesive curriculum where students are continually engaged in tasks that meet the demanding cognitive complexity of the grade-level standards.

**Ms. Debra Kelly Thomas, Computer Science Instructional Specialist, Broward County Public Schools**

Debra Kelly Thomas and Annmargareth Marousky are Computer Science Instructional Specialists for Broward County Public Schools (BCPS) in Fort Lauderdale, Florida. The two are currently working together, under the supervision of Dr. Lisa Milenkovic (Principal Investigator), on a National Science Foundation (NSF) STEM+Computing Partnership Exploratory Integration grant, "Investigating Conceptual Foundations for a Transdisciplinary Model Integrating Computer Science into the Elementary STEM Curriculum" (NSF Grant # 1542842).

Prior to her current position, Kelly served as STEM Magnet Coordinator as well as Science Coach for Colbert Elementary Sprouting STEM Museum Magnet School in Hollywood, Florida. She obtained both her bachelor's and master's degree from the University of Florida where she specialized in math and science elementary education and recently completed her Educational Specialist (Ed.S) degree in Curriculum and Instruction with a focus on elementary STEM education at Florida International University (FIU). Kelly is also a certified Engineering is Elementary curriculum Trainer and Collaborator and has provided a number of professional development trainings for teachers in elementary STEM Education.

Prior to her current position, Annmargareth served as a STEM Teacher, Science Coach and on the Leadership team at Nova Eisenhower Elementary School in Davie, Florida. Annmargareth is a National Board Certified Teacher (NBCT) with 20 years of teaching experience. Annmargareth also has experience writing curriculum for both Broward County Public Schools, Science4Us.com, and for other NSF grants.

**Mrs. Amy Trujillo, Instructional Coach, Orlando Science Elementary School**

Amy Trujillo is the Instructional Coach of Orlando Science Elementary School. She is a PBS LearningMedia Digital Innovator, a Certified BrainPOP Educator, and the FAST Area Five Director. She presents, teaches, and writes about using technology to meet the needs of the diverse student population.

### **Mrs. Carol Unterreiner, Teacher, Milwee Middle School**

Carol Unterreiner teaches middle school engineering at Milwee Middle School. She currently teaches PLTW classes to 6th, 7th and 8th graders and has a SECME competition class. She has been teaching at Milwee for 20 years. Before teaching engineering she taught science, math and PE. Besides teaching engineering she is also the sponsor of the Beta club, the girl's engineering club, TSA and Vex robotics. Carol was a part of the engineering team from Milwee that won the prestigious ITEEA Program of Excellence award in 2014. We won the ISEA Stem School of Excellence award in 2015. Carol was one of two ISEA Stem Champions in 2015 and won the ITEEA Teacher of Excellence award in 2016.

Carol has a BA in communication studies from Vanderbilt University, an MA in communication studies from UCF and she is certified middle grades science and gifted education. She is also GTT/PLTW certified.

When not teaching and taking students to competitions Carol helps coach her daughter's volleyball team, and proudly attends the events of her high school and college sons.