

# Opportunities to see and hear your STEM Ecosystem Colleagues during the main US News STEM Solutions Summit Sessions\*

## OPENING KEYNOTE SESSION

Thursday, April 5, 2018 | 8:45 am - 10:45 am  
Room: Ballroom C

### Keynote Remarks

**Gerald Solomon**, *Executive Director, Samueli Foundation*  
**Ron Ottinger**, *Executive Director, STEM Next Opportunity Fund*  
**Gregory Washington, Ph.D.**, *Dean of Engineering, Henry Samueli School of Engineering, University of California–Irvine*

## U.S. NEWS STEM LEADERSHIP HALL OF FAME AWARDS LUNCHEON

Thursday, April 5, 2018 | 12:30 pm - 2:00 pm  
Room: Ballroom C

### U.S. News STEM Leadership Hall of Fame Discussion

France A. Córdova, Ph.D., *Director, National Science Foundation*  
Ira Flatow, *Host and Executive Producer, Science Friday*  
**Henry Samueli, Ph.D.**, *Co-Founder and Chief Technical Officer, Broadcom*  
James E. West, Ph.D., *Professor, Electrical and Computer Engineering, Johns Hopkins University*  
Moderator: Brian Kelly, *Editor and Chief Content Officer, U.S. News & World Report*

## AN UPDATE ON THE STEM FUNDERS NETWORK'S STEM LEARNING ECOSYSTEM INITIATIVE

Thursday, April 5, 2018 | 11:15 am - 12:15 pm  
Room: 206

**Gerald Solomon/Ron Ottinger**  
**Brian Carter**, *Overdeck Family Foundation*  
**Erica Fessia**, *Qualcomm*

For the past three years, STEM Learning Ecosystem, a project endorsed by the STEM Funders Network, has been cultivating STEM Ecosystems in 56 communities around the country. The session will provide rich information on their successes and challenges. The session will also share an updated model on how any community, regardless of size or challenge, can build a successful STEM ecosystem to reframe how students learn, how teachers teach, and how workforce pipelines with STEM-skilled individuals can be built and sustained. They will also use this session to announce their process for accepting new communities, their new national leadership program known as LEAD STEM, and the findings of a multi-year evaluation report.

## SPOTLIGHT ON CYBERSECURITY JOBS

Thursday, April 5, 2018 | 11:15 am - 12:15 pm  
Room: 204C

Lester N. McCollum II, Michel Cukier, Ph.D., Rodney Petersen, **Sabrina Gómez**  
Moderator: **Sabrina Gómez**, *Director, Expanded STEM Opportunities, Expanded Schools*

As data breaches become more commonplace and costly, strengthening digital infrastructure is an increasingly important goal for many companies, government agencies and consumers. Cybersecurity jobs are already in high demand, and forecasts project a shortage of more than a million workers with the right skills for these jobs in the next several years. Educators and employers are working to meet the demand by developing up-to-date pathway programs, expanding credentials and nondegree options, and building out public-private partnerships to prime the pipeline. Hear from several experts on the front lines of the field about where cybersecurity is heading and how academia and industry can work together to fill these jobs.

## PLANNING FOR THE WORKFORCE OF TOMORROW: WHERE THE JOBS WILL BE

Thursday, April 5, 2018 | 11:15 am - 12:15 pm  
Room: 201

Drew Petty/ Jennie Sparandara/ **Paula Golden**/ Dane Linn  
Moderator: Dane Linn, *Vice President, Business Roundtable*

According to a 2017 survey of companies by the Business Roundtable, more than half of today's open jobs do not require a college degree; but in the next decade, positions requiring bachelor's and graduate-level degrees will increase significantly. The challenge is clear: How do employers fill their immediate job needs and also prepare for the decades to come? In the face of an aging population, new technology, the rise of automation, changing regulations, the explosion of the "gig economy" and other disruptive forces, success will require a complex approach of recruiting, training and retraining professionals for "new collar" jobs. Learn about how employers, educators and other stakeholders are working together to understand the evolving career landscape and to train, hire and develop workers for in-demand fields.

## THE POWER OF PARTNERSHIPS: AN INSIDE LOOK AT COMMUNITIES THAT ARE MAKING A DIFFERENCE

Thursday, April 5, 2018 | 3:00 pm - 4:00 pm  
Room: 204A/B

**Lori Flippin/ Matthew Felan/ Rich Van Tol**

Solving the STEM skills gap is a national problem with local and regional solutions. Many of the most effective partnerships begin as public-private collaborations in local communities, bridging the gap between employers, educators, policymakers, and other groups, such as workforce development boards or chambers of commerce. A 2016 National Academies report suggests that the blueprint for success comes through coordinating efforts, closely tracking and sharing data, embracing experiential learning, working with associations and industry consortia, and more. **The STEM Learning Ecosystems**, a project endorsed by the STEM Funders Network, has been cultivating STEM Ecosystems in 56 communities around the country. This session will feature representatives from one of those Ecosystems, the Great Lakes Bay Regional STEM Initiative in Michigan. They have found success through a regional collaborative focused on building the workforce of tomorrow through comprehensive STEM education.

## ADVANCED MANUFACTURING: HOW TECHNOLOGY IS CHANGING THE GAME

Thursday, April 5, 2018 | 3:00 pm - 4:00 pm  
Room: 201

Carolyn Lee/ **Landon Taylor/Mandy Leemhuis/Victoria Holt/ Larry Plank, Ed. S**  
**Moderator: Larry Plank, Ed. S, Director of STEM Education, Hillsborough County Public Schools**

Manufacturing as we know it is changing – and fast. Driven by new technology and what some are calling a new Industrial Revolution, the field is being reshaped, and many companies are finding themselves at a crossroads. There is an urgent need to develop a workforce properly equipped to leverage these transformative technologies. The Manufacturing Institute forecasts that by 2025, U.S. companies will be facing 2 million job vacancies because of a skills gap. To remain competitive, firms must evolve by retraining workers in new modes of manufacturing, making the right investments in new tech, and working with community colleges and other partners to build capacity. Listen and learn from several innovators in advanced manufacturing about what approaches are showing real promise and the significant challenges that remain.

## THE LIFE-CHANGING POWER OF STEM: TACKLING ENGINEERING'S GRAND CHALLENGES

Thursday, April 5, 2018 | 4:30 pm - 5:30 pm  
Room: 204C

**Erica Fessia/ Gregory Washington, Ph.D./ Joe Scantlebury/ Shea Irvin/ Jan Morrison**  
**Moderator: Jan Morrison, President and Chief Executive Officer, Teaching Institute for Excellence in STEM**

For nearly a decade, the National Academy of Engineering has sought to rally support around the Grand Challenges for Engineering, a list of 14 major goals for improving life across the world in the 21st century. The list includes everything from providing access to clean water and making solar energy economical to improving health informatics and cybersecurity. More than 120 U.S. engineering schools have committed to educating the next generation of engineers with the tools they need to specifically tackle some of these pressing challenges. Many of the challenges are precisely aligned with industry efforts in sustainability, healthcare and other areas, so the opportunities for collaboration are abundant. Join several stakeholders who have embraced the Grand Challenges as an opportunity to blend advanced technical training with purpose-driven learning to make a real-world impact.

## THE POWER OF PARTNERSHIPS: AN INSIDE LOOK AT COMMUNITIES THAT ARE MAKING A DIFFERENCE

Thursday, April 5, 2018 | 4:30 pm - 5:30 pm  
Room: 204A/B

**David Reichard/ Maria Hane/ Matthew C. Hutchins/ Melissa Coleman/ Kathleen Schofield**  
**Moderator: Kathleen Schofield, Executive Director, Northeast Florida Regional STEM2 Hub**

Solving the STEM skills gap is a national problem with local and regional solutions. Many of the most effective partnerships begin as public-private collaborations in local communities, bridging the gap between employers, educators, policymakers, and other groups, such as workforce development boards or chambers of commerce. A 2016 National Academies report suggests that the blueprint for success comes through coordinating efforts, closely tracking and sharing data, embracing experiential learning, working with associations and industry consortia, and more. For several years, the STEM Learning Ecosystems, a project endorsed by the STEM Funders Network, has been cultivating STEM Ecosystems in 56 communities around the country. This session will feature representatives from one of those Ecosystems, the Northeast Florida STEM2 Hub, which has found success in building a strong foundation for the workforce of tomorrow.

## THE VITAL ROLE OF COMMUNITY COLLEGES IN TALENT DEVELOPMENT

Friday, April 6, 2018 | 8:45 am - 9:45 am  
Room: 204C

Bryan D. Albrecht, Ed.D./ Diane Bosak/ Ellen Hause/ **Judd R. Pittman**  
**Moderator: Judd R. Pittman, Special Consultant to the Secretary of Education on STEM, Pennsylvania Department of Education**

More than 12 million U.S. students are currently enrolled at community colleges, including many women, African-Americans, Hispanics and military veterans who are largely underrepresented in the STEM fields. In addition to boosting diversity, community colleges have become important drivers for young people eager to find a pathway into rewarding new careers, as well as a wide range of companies wanting to train and retrain their employees. Thanks to articulation agreements with high schools, four-year universities, and even some companies, many community colleges can offer an affordable credential or degree that is geared toward the workforce. In this session, hear from several community college leaders who have worked to help these institutions reach their potential as launching pads for tomorrow's STEM workforce.

## BRINGING MORE WOMEN INTO THE FOLD IN STEM

Friday, April 6, 2018 | 8:45 am - 9:45 am  
Room: 202B

Jean King, Ph.D./ Karen Ramsey-Idem, Ph.D./ **Mary Adams/ Meredith Stevens/ Janet Bandows Koster**  
**Moderator: Janet Bandows Koster, Executive Director and Chief Executive Officer, Association for Women in Science**

It's no secret that women, especially women of color, remain drastically underrepresented in STEM, particularly at the executive level. Oft-cited statistics estimate that women comprise just 12 and 25 percent of the engineering and computing workforce, respectively. Many women who earn STEM degrees either never pursue or abandon careers in those fields at a higher rate than their male peers. Major efforts are underway to unearth cutting-edge solutions that both inspire women to enter and stick with STEM careers. These include a novel re-entry program from the Society of Women Engineers that is catapulting women who've taken significant career breaks back into workforce at high-profile STEM companies, as well as programs that help companies and schools target implicit bias in their ranks – a key reason that many women report leaving the field. Join us for an action-oriented discussion exploring the latest thinking on how to close the gender gap in key STEM professions.

*\*STEM Ecosystem member/partner names are in bold. Accurate as of print date. Apologies for any errors or omissions.*