



NMTC VISIONARY AWARDS

FEBRUARY 23, 2017

HARFORD COMMUNITY COLLEGE PROUDLY
CONGRATULATES OUR COLLEAGUES

NMTC VISIONARY AWARDS HONOREES

Marlene Lieb & Dick Schwanke

FOR THEIR PERSONAL COMMITMENT TO THE
ADVANCEMENT OF STEM EDUCATION.

Congratulations!

**HARFORD
COMMUNITY
COLLEGE**

401 Thomas Run Road
Bel Air, Maryland 21015
www.harford.edu

Harford Community College offers certificates and degrees that prepare you for immediate employment in a science/technology field or transfer to a four-year program in seven areas of study:

- Cybersecurity
- Engineering
- Physics
- Environmental Science
- Mathematics
- Biology
- Chemistry

KEYNOTE



Shelby L. Bartram

As a child I always had an interest in the math and science fields. This passion continued into high school where I enrolled in the STEM program at Perryville High School and my interest in Engineering began. This

ultimately led to my participation in the SEAP and ORISE Programs at Edgewood Chemical Biological Center. My involvement in this internship, as well as my education through the STEM Academy drove my decision to attend Western New England University, located in Springfield, Massachusetts to study Biomedical Engineering. Shortly after my enrollment at Western New England University, I applied for and received the SMART Scholarship, which allowed me to pursue both my Bachelor's degree in Biomedical Engineering, with a concentration in Biomaterials, and my Master's degree in Engineering Management. While in school I had the opportunity to travel to Guatemala where I studied the Guatemalan healthcare system and offered insight to potential medical improvements. After graduation, I began working at Advanced Design Manufacturing, located at Edgewood Chemical Biological Center as a Biomedical Engineer in March 2016. My hobbies include boating on the Chesapeake Bay, watching drag racing with my family, and playing with my puppy.



Driving Technology ... *Changing the World*

CACI salutes the Northeastern Maryland Technology Council for its achievements in advancing STEM education and accelerating economic growth.

A company committed to ethics and integrity in all we do, CACI is proud to support the development of an outstanding STEM-educated workforce. We thank you and all the Visionary Award winners for your admirable efforts that are driving technology that changes the world ... one community at a time.

CACI
EVER VIGILANT

www.caci.com

Corporate Sponsor

A Fortune World's Most Admired Company

©CACI 2017 A378_012017

NMTC SPONSORS

NMTC PRIMARY SPONSORS

GALA SPONSOR Harford Community College

Platinum - Sponsor Cecil College

Gold Sponsor - Harford County Office of Economic Development

Silver Sponsor - Towson University, North East

Silver Sponsor - Freedom Federal Credit Union

Media Sponsor - Adams Communication & Engineering Technology

Advertising Sponsor - 195 BUSINESS Magazine

VIP Sponsor - Nextgen Federal Systems

NMTC SUPPORTING SPONSORS

Brand 3 Design

D3 Corp

MD Department of Business & Economic Development

Northrop Grumman

NMTC TABLE SPONSORS

Orbital-ATK

RTR Technologies

National Science Teachers Association/Army Educational Outreach Program

GALA VOLUNTEERS and VISIONARY AWARDS COMMITTEE

Michael Seldes - Chair, Chief Operating Office, Adams Communication & Engineering Technology

Diane Burke, Facility Security Manager, Adams Communication & Engineering Technology

John Casner, Executive Director, NMTC

Frank Cardo, Program Coordinator for Science and STEM for Cecil County Public Schools

Marco Ciavolino, Executive Director, Techbrick Robotics & Partner, Enktesis LLC

Mary Doak, ECBC (Retired)

Dennis Heibert, Senior Science Society

Kathy Kunda, Trustee, Cecil College

Dr Diane Lane, Vice President of Student Services and Institutional Effectiveness, Cecil College

Suzanne Milching, Technical Director, US Army Materiel Systems Analysis Activity (AMSAA)

Kimberly Nikitas, Technical Lead, Scientific and Technical Communications, Battelle

Amanda Vincenti, Program Specialist | Deployment Coordinator, Adams Communication & Engineering Technology



NORTHROP GRUMMAN



*enktesis

** building value
developing ideas*

We provide website, graphic design, and communications services for small and medium businesses.

It is essential that your website is up-to-date, easily accessible by a bewildering range of mobile devices, and has basic search engine parameters properly configured, and that you have a consistent social media presence. If your website was built before 2017 it is likely you are missing opportunities via the internet.

Services Include:

- Website conversion from old platforms
- Publication design and production
- Packaging design and management
- Publication design and production
- Website design and development
- Video production and animation
- Copywriting
- Photography
- Graphic design

Get your free guide to "Mundane and Boring Subjects that will Change Your Digital Life" at my website.

Want to know more? Contact Marco Ciavolino today for a free evaluation of your current web site and related assets.
410-838-8264 or marco@enktesis.com



**WE DESIGNED THIS
COOL BROCHURE.
WANT ONE?
CALL US!**



TechBrick is an independent robotics and STEM education program for home schooled, public, and private school students.

- We meet weekly on APG
- There are no prerequisites.
- We are looking for students, Pre-K through 18
- Eager to learn engineering at all levels
- Willing to focus on very complex tasks, and engage in building a world-class robot and team.

These programs provide a platform for young people to get excited about the challenges and rewards of engineering as they are pushed on every level through project management, design, research, testing, strategic planning, and more. **We are looking for corporate support, interested students, and willing mentors.** Please visit us and you will be engaged. We promise! Contact Marco Ciavolino at marco@techbrick.com or 410-838-8264 for more information.



enktesis.com

techbrick.com



TOWSON UNIVERSITY

CLOSE TO HOME

IN NORTHEASTERN MARYLAND

Spring 2017 Open House Dates:

March 28 • April 11 • 6:30–8:30 p.m. • 510 Thomas Run Road

Towson University and Harford Community College have teamed up to provide a seamless transfer for students pursuing a four-year undergraduate degree after completing their associate degree. This innovative partnership allows students in northeastern Maryland to enroll in specific degree programs or earn credit for electives offered by Towson University closer to home.

The new Towson University in Northeastern Maryland building on the grounds of Harford Community College make Towson's programs easier to access and provide opportunities for study and workforce development in the region.

Undergraduate programs offered at TU in Northeastern Maryland:

- Business Administration (Management concentration)
- Family and Human Services
Services to Children and Youth track
- Information Technology
- Integrated Early Childhood Education/Special Education
- Integrated Elementary Education/Special Education
- Nursing
- Psychology
- Sociology (Criminal Justice concentration)

Additional programs are coming, so keep checking back or call 410-704-8863 for updated information.

For more information visit www.towson.edu/tunemd



Freedom is Proud to Support the NMTC 2017 Visionary Award Winners



Belong To Something Special

800-440-4120

www.freedomfcu.org

Congratulations

2017 NMTC Visionary Award Winners

From Your Friends at



**ADAMS COMMUNICATION &
ENGINEERING TECHNOLOGY**

6190 Guardian Gateway, Suite 300
Aberdeen Proving Ground, MD 21005
www.adamscomm.com • 443.345.2631

Congratulations to this year's award winners.



Educating the engineering and math leaders of the future ...

**INNOVATION • INQUIRY
ANALYSIS • APPLICATION**

Dr. Mary Bolt
Visionary Award

Dr. Veronica Dougherty
Innovator Award

Dr. Ebony Roper
Mentor Award

Jacqueline Wilson
Rising Star Award



CECIL COLLEGE

CALL OR VISIT US ONLINE TODAY

www.cecil.edu | 410-287-1000

Toll Free • 866-966-1001 | TTY • 410-287-2701

REAL STUDENTS. REAL SUCCESS.



AGENDA

WELCOME & INTRODUCTIONS

Mr. Michael Parker, Chair, NMTC Board of Directors

NMTC BOARD ELECTIONS

Mr. John Casner, Executive Director, NMTC

NMTC STEM, A STUDENT'S SUCCESSFUL JOURNEY

**Ms. Shelby Bartram, Bio Medical Engineer, US Army Edgewood
Chemical & Biological Center**

NMTC VISIONARY AWARDS CEREMONY

Mr. John Casner, Executive Director,

NMTC VISIONARY AWARDS, VISIONARY HONORS PRESENTATION

**Dr. Mary Way Bolt, President, Cecil College, 2017 Visionary Awards
Honoree, introduced by Ms. Denise Carnaggio, 2016 Visionary
Awards Honoree**

CLOSING REMARKS

Mr. Michael Parker, Chair, NMTC Board of Directors

ADJOURN

NMTC AWARDS

The NMTC Visionary Awards celebrates our neighbors and colleagues making a difference in STEM Education and Technology Advancement in our community. This evening recognizes those individuals.

 **VISIONARY** – a community role model in advancing STEM Education and Technology Advancement for a remarkable period of time. This individual has displayed significant contributions, a high level of leadership, and a personal commitment to the advancement of Technology and STEM Education for the region.

 **LEADERS** – setting the pace for success. Acknowledges this individual's steadfast, consistent contribution to the advancement of STEM Education or Technology Development in a public way while inspiring others to help in accomplishing shared goals.

 **INNOVATORS** – ideas that make a difference. Recognizes exceptional personal efforts in development and implementation of innovative program(s) measurably benefiting STEM Education or Technology application with the potential for broad positive impact in the community.

 **MENTORS** – role models for future generations. Illuminates those consistently volunteering their knowledge, experiences, and wisdom by going above and beyond in using their personal time and resources simply for the love of stimulating and inspiring greatness in students or teachers or organization protégés.

 **RISING STARS** – people to watch. Demonstrated, in a bold way, the potential to be an excellent, long-term contributor to STEM Education or Technology Advancement.



Visionary Award: Dr. Mary Bolt's lifelong career in education and healthcare combines a unique appreciation of science, technology, and the initiative needed to ensure workforce readiness of Maryland citizens. Dr. Bolt has held many leadership positions during her tenure at Cecil College, including Vice President of Academic Programs and most recently as President (since 2014). In addition, Dr. Bolt has served as the lead curriculum architect for the engineering, healthcare, and cybersecurity degrees. She also championed the development of a comprehensive simulation program for nursing and healthcare students utilizing high fidelity simulation mannequins. While driving the advancement of the technology available to students, Dr. Bolt also ensured that students could 'credential stack' - allowing them to tailor their degrees to personal and workforce needs - while they work towards their Associate Degree. Furthermore, Dr. Bolt worked diligently to make certain that the degrees students complete can be seamlessly pursued at the baccalaureate level, including agreements with

Drexel University, University of Delaware, and Wilmington Delaware. Locally, Dr. Bolt serves on multiple hospital and association boards, including Union Hospital, Chesapeake Health Education Program, the Engineering Oversight Committee led by the Maryland Higher Education Commission (MHEC), Northeastern Maryland Technology Council and many more. Globally, in 2014, she represented community colleges during the MHEC visit to Taiwan's public and private universities. Dr. Bolt served on the conference panel discussing community college education and also met with the Ministries of Health and Education to discuss Taiwan's public health concerns and the US health delivery model and community college education, respectively.



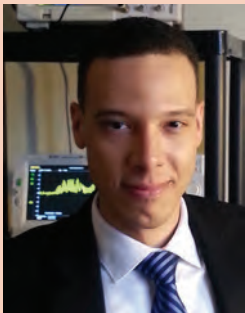
Leader Award: Joan Michel has been a STEM leader, innovator and advocate for over a decade. As the Strategic Planning and Communications Officer of U.S. Army Edgewood Chemical Biological Center (ECBC), she spearheaded the support and funding of the first Community and STEM Educational Outreach program at ECBC. Under Joan's leadership, this program grew from a small grass roots effort to a vibrant program servicing thousands of students across northern Maryland. Since 2009, Joan has worked to expand STEM education opportunities for students across the state. This effort included building programs with the Maryland Business Roundtable for Education, establishing a state-wide coalition of after-school STEM providers, and working with Harford County Public Schools to develop a STEM education roadmap. One of Joan's key accomplishments was working with the Maryland State Department of Education and Maryland Emergency Management Agency to expand the Homeland Security program to 25 high schools across the state and over 2,000 students.

Locally, Joan was a driving force behind the STEM Summit program, crafting 15 "Summits" that featured nationally renowned STEM leaders to help inform and guide our region's efforts to improve student STEM participation and performance. Joan's most recent work has been focused on building opportunities in specific STEM fields - cyber/computer science, geospatial information systems, and manufacturing. In addition, she is particularly interested in expanding her efforts to focus on increasing women's participation in these fields.



Rising Star Award: Alison Baranowski has dedicated her education and career to STEM education and awareness in her community. With her Bachelors in Elementary Education, Masters as a Reading Specialist and Post-Baccalaureate Certificate in Integrated STEM Instructional Leadership; she's served as a leader throughout her 12 year career with Harford County Public Schools (HCPS). She has taught 2nd through 5th grades and is currently a 4th grade Teacher and Teacher-in-Charge at Havre de Grace Elementary. Alison actively serves as STEM Night coordinator, Safe Racers Coach, and is HCPS EiE (Engineering is Elementary) Master Teacher for Harford County. She is also one of two PreK-12 teacher members of the Committee on PreK-12 Engineering Education for ASEE (American Society for Engineering Education). Over the course of her career with HCPS, Alison has been a proactive volunteer for multiple groundbreaking education initiatives in the county, including serving as a pilot tester for the fourth grade Rocks, Minerals, and Materials Engineering unit,

and taking part in the first Towson University Cohort in the Integrated STEM Instructional Leadership program for PreK-6 teachers. Her work in the Rocks, Minerals, and Materials Engineering unit pilot test was featured in an issue of 'Prism', the magazine for the American Society for Engineering Education (ASEE). In addition to her evident enthusiasm and commitment to STEM and early elementary education, she's demonstrated that she is an engaging, caring educator with high expectations for the children in her care.



Leader Award: Dr. John Suarez is an exceptional Research Electronics Engineer for the U.S. Army Communications-Electronics Research, Development and Engineering Center (CERDEC) where he has dedicated his career to providing outstanding support to the U.S. Army mission and mentoring peers and youth in STEM and Engineering initiatives. In addition to his work, he currently holds 2 U.S. patents and has 7 patents pending - all of which are for the development of technologies that support the Mission of Army CERDEC. The most recent was awarded March 2015; Patent 9,287,908 entitled "Wireless-Channel Characterization and Equalization" and is based on work conducted by Dr. Suarez for the purpose of enabling more effective wireless communications for radio systems. Outside of the lab, Dr. Suarez is a dedicated teacher and mentor for the next generation of engineers and scientists. He serves as a leader to new employees within CERDEC, advises doctoral candidates, and routinely teaches a graduate course in

RF electronics to CERDEC employees. For the past 4 years, he's participated in the annual Futures 11 Conference at Harford Community College, an event for high school students who are interested in STEM careers. Dr. Suarez has participated in the National Junior Science and Humanities Symposium for college bound students, as well as the "STEM in Scouting" event for the Boy Scouts and Girl Scouts of America. His leadership within the STEM community has resonated with those he's mentored and is sure to result in a lasting, positive effect locally and beyond.



Leader Award: Dr. Patrick McNutt has served the U.S. Army for nearly two decades through active duty military service, reserve duty, and civilian service. Dr. McNutt separated from active duty service as a Major, and joined the reserves where is now a Lieutenant Colonel, commanding a Medical Support Unit and Troop Medical Clinic based out of Alexandria, Virginia. When not fulfilling his reserve duties, he works as a research scientist at the U.S. Army Medical Research Institute of Chemical Defense (USAMRICD) located on Aberdeen Proving Ground Edgewood area. During his tenure at the USAMRICD, Dr. McNutt has led mentoring programs for numerous postdoctoral fellows, full-time interns, high school and college students, enlisted soldiers and junior officers. In addition, his leadership helped sponsor multiple high school students to work in his laboratory during the Science and Engineering Apprenticeship Program (SEAP), as well as seniors from the Science and Mathematics Academy (SMA) at Aberdeen High School to conduct their

Capstone projects. Finally, Dr. McNutt has served for several years as an active member of the USAMRICD committee that oversees and coordinates participants from the Oak Ridge Institute for Science and Engineering (ORISE) program, where he has been responsible for over fifty participants at USAMRICD yearly. His efforts to guide and lead have demonstrated a sincere commitment to STEM education across his career.



Rising Star Award: Jerry Crabb is a STEM Program Coordinator at the U.S. Army Research Development and Engineering Command (RDECOM)'s Human Resources Directorate, STEM Outreach Office. In this role, Jerry manages the Army Educational Outreach Program's (AEOP) eCYBERMISSION competition and is the action officer for coordinating Team APG STEM engagement with Baltimore, Harford, and Cecil County public schools. Since joining the STEM Team at RDECOM a little over 3 years ago, Jerry has shown dedication in ensuring that APG organizations are engaged and effectively impact regional STEM efforts. As eCYBERMISSION Program Coordinator, Jerry has driven participant growth from 15,000 students to approximately 21,000 in 2016. In addition to boosting participation at the outset, he has incorporated additional facets to the eCYBERMISSION program to ensure long term growth and participant enrichment. In 2014, Jerry recommended and implemented the "STEM-in-ACTION" Grant within eCYBERMISSION. The grant awards five

national teams up to \$5,000 each to further their research, apply for patents, and ultimately implement their projects within their communities. In his short time within this role, Jerry has already enhanced APG's presence in the STEM community as well as contributed to the eCYBERMISSION program in a way that will ensure the long term success of the initiative as well as its participants. His continued participation will be an asset to the community for many years to come.



Innovator Award: Marlene Lieb has dedicated the majority of her 31 years representing Harford Community College (HCC), to the creation of multiple opportunities for area students and professionals to learn, grow, and advance in the STEM community. In 2006, she created Technology Needs Teens (TNT), an annual one day event designed to promote awareness of the positive attributes of STEM education benefiting 200 Harford County 8th grade students. By soliciting industry, academia and government partners to engage students in hands-on STEM related experiences - providing excitement and interest in studying related subjects. Marlene is also member of the Board of Directors and a driving force behind the Harford Leadership Academy (HLA), as well as the HLA Alumni Association and established the HLA Ambassadors group. In 2008, she called the first meeting of the Senior Science Society (SSS) by utilizing relationships established with top scientists. She further assisted the group by connecting them with a dynamic facilitator and introducing

them to the supervisor of STEM education at HCPS. Today, the SSS is active in the STEM community, providing scholarships, mentoring, and hundreds of scientific teaching demonstrations at every STEM Night & Beyond. Marlene is also a lifetime member and past President of the American Association of University Women where she helped create the annual Resnik Award Luncheon to recognize one junior woman from each county high school who excels in math and science. Most recently, Marlene contributed to the creation of The Women's Giving Circle of Harford County.



Mentor Award: John Nierwinski has worked as an Operations Research Analyst at the U.S. Army Materiel Systems Analysis Activity (AMSAA) at Aberdeen Proving Ground (APG) for almost 14 years, and has served as an Adjunct Professor at the Florida Institute of Technology (FIT) APG site for over 8 years. In 2012, John was issued a U.S. Patent for an innovative methodology and process that he invented. During his career with AMSAA, he regularly solves Army sustainment and acquisition problems that require mathematics and decision support by developing solutions both complex and direct. Before working at AMSAA, he was an Actuarial & Mathematical Programmer, Statistician, and Vice President in the insurance and credit card industries. Throughout his career, he has also authored various professional journal articles, web articles, and technical reports on a variety of research topics and methodologies. With a career dedicated to mathematics and their application to real life scenarios, it was a natural transition to use those

experiences to mentor colleagues in need, as well as college students. As an Adjunct Professor, he teaches graduate level courses in Mathematics, Operations Research, and Business Management and has taught approximately 30 AMSAA employees, 50 additional APG employees, and 30 non-APG employees. John recently began teaching online courses to expand accessibility to STEM methodologies and education. As a colleague and mentor, John has always made time, on or off the clock, to ensure those with questions are answered, guided, and encouraged.



Innovator Award: Scott English, a Forester with the Directorate of Public Works (DPW), initiated a program to broaden the scope of Aberdeen Proving Ground's (APG) STEM outreach. The program brought Agricultural and Natural Resources or AgSTEM together as it supports existing initiatives focused on developing skills and leadership qualities in youth. Scott collaborated with STEM outreach professionals in the U.S. Army Medical Research Institute for Chemical Defense (MRICD), the Army Public Health Center (PHC), the Army Research Laboratory (ARL) and Communications-Electronics Research, Development and Engineering Center (CERDEC) to integrate AgSTEM activities together. The first step in his outreach process was initiated when DPW Natural Resources participated in the APG STEM EXPO in 2016 with two interactive problem solving challenges. Future AgSTEM activities are planned as components of the 2017 GEMS II and GEMS III programs as well as the Futures 11 Conference. Currently, Scott is securing financial resources for Oak Ridge Institute of Science and

Engineering (ORISE) FY17 summer internships for high school students with a plan to offer STEM focused 3 scholarships. In line with this effort, Scott has also initiated collaborative discussions with the University of Maryland Extension Office, Maryland Agricultural Education Foundation and Harford Community College to develop and AgSTEM internship in 2018. Finally, Scott is an active member of the Harford County Forestry Board and is a mentor to students at North Harford High School's Natural Resources and Agriculture magnet program.



Mentor Award: Anne Marie Baumann is a staple at Perryville Middle School (PVMS) and the surrounding community. For the past seven years, she has mentored adults as well as students as she introduced them to possibilities a career in STEM may hold. To foster interest in STEM careers, content, and opportunities, Anne Marie focused on students who had not shown interest in STEM and encouraged them to participate in current STEM community and school initiatives. In 2012, she led the coordination of the Perryville Middle School science fair. The science fair consistently reaches over 800 students, requires the organization of 30-40 judges to ensure each student is reviewed and provided feedback and guidance. In 2016, Anne Marie contributed to the opening of the Makerspace at PVMS along with fellow teachers. The Makerspace exposes students to STEM opportunities and technologies they would not generally have access to in their traditional classes. Within the space, students have access to 3D printers, drone technology, Sphero robotics, engineering

tasks, 3D Google Cardboard, and more. As an 8th grade teacher and science lead teacher, she mentors future science teachers as well as ensures that her students are prepared early on for success should they apply to the STEM Academy and/or Project Lead The Way in high school, giving them the foundation they need to succeed long after they leave her classroom.



Mentor Award: Dr. Ebony Roper is currently a Professor of Chemistry at Cecil College, where she has taken on many research and community service projects in an effort to introduce exciting innovations into her classroom. Dr. Roper is an active team member for the National Oceanic and Atmospheric Administration (NOAA) Center for Atmospheric Sciences where she participates in air quality research projects in urban communities as well as in the North Atlantic Ocean. Dr. Roper then utilizes these live test results to aid in improving industry weather forecasting and climatology, as well as integrating them into her teaching tools for current and future student benefit. A standout accomplishment on Dr. Roper's part has been to integrate science and art via the chemistry of color and light in an introductory level Chemistry course. Her goal is to give students of the arts an opportunity to learn and understand the application of chemistry in the visual arts, thus extending the reach of STEM education into a major not commonly associated with STEM initiatives. In each case, Dr. Roper has created a living

laboratory in her classes to simulate real-world chemistry concept application. Outside of the campus, Dr. Roper is an active mentor to high school students and undergraduate STEM students from around the country, local students with STEM Capstone projects, and orchestrates community outreach efforts to collect and donate unused lab notebooks to high school students in need. In addition, Dr. Roper is especially committed to encouraging women and minorities toward STEM professions.



Innovator Award: Dr. Veronica Dougherty has led the STEM Division of Cecil College for over 20 years, where she has transformed the division in response to advancing workforce demands. When Aberdeen Proving Ground (APG) participated in the Base Realignment and Closure (BRAC), Dr. Dougherty foresaw the need to realign the engineering curriculum to address new core competencies required of the APG workforce. While ensuring readiness for students shifting from Cecil College to an APG career, Dr. Dougherty also made certain that student readiness for transition to a four year college was as seamless as possible. In addition, she advocated for updated facilities, new equipment, and professional development opportunities so that faculty could adjust to program content and delivery successfully. The success of a new curriculum could only be guaranteed if the faculty was prepared as well. Although much attention was given to engineering studies, Dr. Dougherty also ensured that a complement of additional STEM options were provided to students, including associate

degrees in the environmental sciences, multiple concentrations in biology, and cybersecurity. Her push for an enhanced suite of STEM studies have resulted in a 25% growth in STEM majors in the last 5 years. In addition to her work on campus, Dr. Dougherty has served as a philanthropic role model for her faculty via her mentoring efforts at local high schools, and providing preliminary training for area service dogs.



Rising Star Award: Jackie Wilson recently joined Cecil College as an Assistant Professor in Computer Science, where she has been working to update the curriculum for both computer science and cybersecurity majors. Jackie's major goals for the department include ensuring the transferability of student credits to four year institutions, and attaining Centers of Academic Excellence in Cyber Defense (CAE2Y) designation. Attaining CAE2Y designation guarantees that the cyber programs at Cecil College meet or exceed National Security Agency (NSA) and Department of Homeland Security (DHS) requirements on a national level. In an effort to efficiently accomplish these goals, Jackie has met with local employers including APG, potential key stakeholders, other colleges, and high schools. By doing so, she is preemptively generating interest in computer science, the STEM studies at Cecil College, and a general awareness and excitement for STEM studies in general. Her work in the community and on campus has led to the development of new courses, a

women's competitive programming team, and the introduction of exciting new technology into the classroom. In addition, under her leadership, computer science students now have access to Oculus Rift and Microsoft HoloLens as part of their studies.



Mentor Award: Richard "Dick" Swanke has been a staple in Harford County community environmental initiatives and offices for several decades. Dick served as an Industrial Hygienist for 10 years on Aberdeen Proving Ground (APG), Goddard Space Flight Center, and the Army Environmental Hygiene Agency (AEHA, now known as CHPPM). For the following 24 years, Dick has worked in the Army Research Laboratory (ARL) on APG in multiple roles, including Environmental Programs Manager, Chief Risk Management Division Supervisor, and Hazardous Materials Manager. Throughout the span of his career, Dick has also taught at Harford Community College (HCC) as an Instructor and Technical Director of their Environmental and Safety Center. While at HCC, Dick has developed student curriculum, authored and edited multiple resources, and taught courses to several generations of eager scholars. In addition, he is also currently an Environment, Safety, and Health Subject Matter Expert (SME) for SURVICE Engineering. During his tenure with HCC,

Dick was a founding member, former President, and current Vice President of the Senior Science Society (SSS). Coupling his extensive experience in environmental studies and his instructional career, Dick has mentored thousands of students at dozens of Harford County Public Schools, and a half dozen local private schools. Dick has also worked with the GEMS program (Gains in the Education of Mathematics and Science) for over a decade. He can be found frequently at NMTC's Stem and Beyond nights, with his educational display (and several interested spectators) in tow.