VIRGINIA
TECHNOLOGY AND ENGINEERING
EDUCATION ASSOCIATION

TECHNOLOGIZE

Summer 2021 EDITION

Virginia TSA and CoderZ Pro League World Championship

Virginia TSA (Technology Student Association) started a new partnership during the 2020-2021 school year and for one school it really made a huge impact. Over the school year with several months of Virtual Instruction, Virginia Beach's Advanced Technology Center (ATC) Robotics Team began participating in the CoderZ Pro League competition. ATC ended up finishing third in the world in the CoderZ Pro League that included over 150,000 students taking part in the competition. This all-virtual competition was open to all middle and high school age students around the world to compete in a virtual format, programming a virtual team robot to complete specific tasks. The list of schools in the competition were from 18 different countries, 29 U.S. States, two Canadian provinces and Puerto Rico.

With these numbers, thousands of teams from around the world were broken up into 5 regions. Each region represented a different portion of the World. The Advanced Technology Center's CoderZ Robotics Team was placed in Region 1. Region 1 teams came from various locations in North America, including the United States and Canada.

The competition started in November and the Regional and World finals were held on January 28th, 2021 in a virtual online format that was open to everyone to view.

The ATC CoderZ Robotics team began the competition as one of 64 teams in Region 1 and was successful in becoming the Region 1 Champion. Winning Region 1 made the ATC CoderZ Robotics team eligible to compete in the World Championship. The ATC CoderZ Robotics Team finished the World Championship in 3rd place overall.

Congratulations to all the team members who honed their coding skills in the CoderZ Virtual environment and brought the 1st place Region 1 trophy and the 3rd place World Championship trophy home to the Virginia Beach Advanced Technology Center. The **main advisor for TSA at ATC is Mack Stevens**, while

Dr. James Barger was the lead with CoderZ.

New Officers are Elected Ballots are counted!

Our association has new officers for the 2021-2022 year! Electronic ballots were due by July 16th and are now all counted. As reported by **Dr. Jim Egenrieder**, elections chair:

Amy Sabarre, Director of STEM Education from Harrisonburg is the incoming President Elect and will serve the 3 year term.

Dave Curry, a middle school teacher from Frederick County ran for the Vice-President position. He previously served as secretary earlier.

Wanda Hulse, a high school teacher from Waynesboro City schools will take the position of Secretary for this coming year.

Treasurer's Report

As of June 30, 2021:
Balance in checking—$27,941.03
Balance in CDs—$15,545.89

Membership totals:
Professional 187
Life (no longer available) 44
Group 8

Welcome from our 2021 President!

I am honored to be able to serve as President of our great organization. I am committed to working to the best of my ability to promote the association and its programs. I am excited to begin working with the newly installed BOD as planning begins for upcoming regional events.

I encourage you as members to be actively involved in your regions. So many times as Technology and Engineering Educators we feel we are a team or PLC of one. Take advantage of regional activities with your colleagues to make connections and foster relationships. It was those connections that got me through virtual, hybrid and concurrent teaching over the past two years.

I want to take a moment to once again thank Goochland County CTE for their work and dedication in hosting the 2021 VTEEA Conference. They were able to offer 55 unduplicated sessions for members to choose from on a digital platform. They have done an outstanding job for the organization and all their efforts are greatly appreciated.

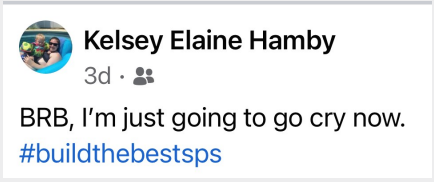
Preparations are already underway for next year's conference hosted by Frederick County, in Winchester, VA. I hope you will plan to attend July 26-28, of 2022.

I wish everyone a great school year and a relaxing rest of your break. I plan to continue effective and open communication between the board and members. If at any time you have questions or concerns and would like to contact me, my information can be found on the VTEEA website under About.

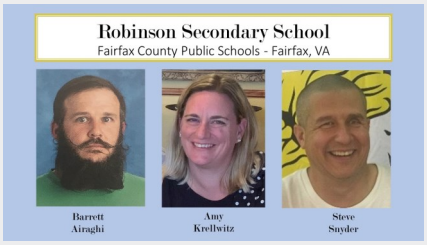
Program of the Year Winners!

*Elementary award goes to Mrs. Megan Tucker at **Hillsboro Charter Academy** in Loudoun county. The program is rooted in STEAM and PBL.*

*Middle School award goes to Kelsey Hamby at **Col. Fred Cherry Middle School** in Suffolk County.*



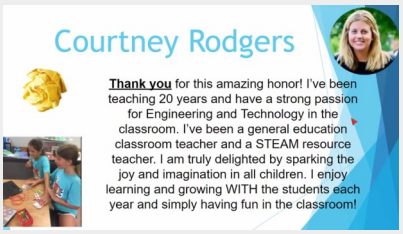
*High School award goes to **Robinson Secondary School** in Fairfax County. Amy Krellwitz, Barrett Airaghi, and Steve Snyder have created and maintained an excellent program.*



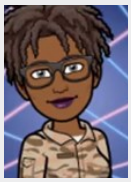
Teacher of the Year Winners!

*Elementary School Teacher of the Year is awarded to **Courtney Rodgers** at Spring Run Elementary in Chesterfield County.*

Courtney and Diane Holzlein make up the STEAM Squad



*Middle School Teacher of the Year is awarded to **Tim Vaughn,** Technology & Engineering teacher, at Marstellar Middle School in Prince William County.*



*High School Teacher of the year is awarded to **Wanda Hulse** at Waynesboro High School. She has just moved into a new space at her school.*

Your association is seeking applicants for the VTEEA Executive Secretary/ Treasurer position.

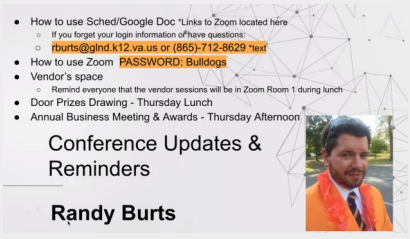
The (paid) position requires a four year commitment (August 1, 2021 to August 31, 2025). The Executive Secretary/Treasurer maintains records of membership and manages the fiscal affairs of the Association under the direction of the President and the Board of Directors.

Interested applicants must email the Executive Committee at vteea1958@gmail.com. In your email, provide your phone number and mailing address. Also, include a brief description of your financial management experience.

By Ron Vickers

July 21st finally arrived and all the preparations for our very first "virtual conference" was in place. It began right on time. President Frank Guyer welcomed us and turned the screen over to Bruce Watson who as Conference Director talked a bit about how the sessions were set up. We got to view an aerial view of the school in Goochland.

Bruce welcomed us virtually to the virtual headquarters and introduced his conference team. Randy Burts, Matt Caratachea, Tim Greenway, Jay Brockman, Ann Moore and Brent Rose., all Goochland teachers were instrumental in setting up the Zoom rooms for the sessions to take place.



The superintendent of Goochland County Schools, Jeremy Raley, Ed.D., welcomed us with encouraging words.

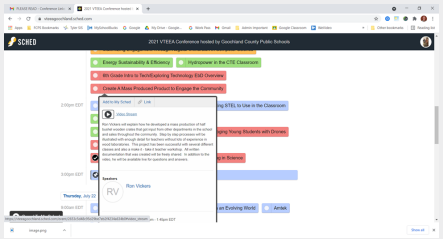
Keynote Speaker

was from Dominion Energy, our GOLD sponsor.

Emil Avram is vice president–Business Development. He is responsible for regulated and merchant generation business development, and gas partnerships business development. Emil gave us a clear and promising review of power generation and how Dominion is a leader in their field. Their website is loaded with relevant facts: https://www.dominionenergy.com/virginia

Goochland was able to offer 53 unduplicated sessions for members to choose from on a digital platform. VTEEA board members acted as hosts to invite attendees, monitor chat, and keep presentations on time. ***Each session was recorded and can be viewed by registered attendees. Participants can go back and watch them, but we are going to make it a private google drive that only the paid registrants will have access to view.***

SCHED software was used to allow attendees to preschedule sessions with a short description of the topic.



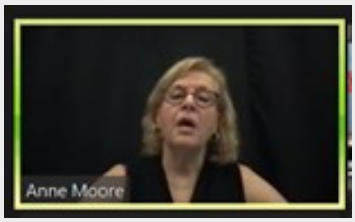
Vendors *got about 10 minutes each during lunch to talk to the group and I saw over 50 participants the entire time.*

Matt Kellam, Dominion Energy *echoed some of what our keynote speaker told us but focused on more of pathways to employment with lots of folks coming from the military.*

Carol Medawar, PLTW, *talked about the three strands of curriculum provided by Project Lead the Way. Casey Martin from Georgia added to this. If a school does not current offer PLTW, it is possible to begin with only one course, say* ***Engineering Essentials*** *and grow from there. PLTW enters into legal agreements with school divisions and you pay annually for each course. You may contact Carol cmedawar@pltw.org It was really cool to see Casey live from her beach condo where if we were in person, she might not have been able to attend. Technology Rules!*

Sample of Sessions

One of the first sessions offered had ***Anne Moore from Goochland*** *talk about her experieces in getting outside experts to work with her students. She developed partnerships that expand the scope of classroom learning. In this session, learn about Alice (one of her students) and how a chance encounter took her on an unexpected career path.*

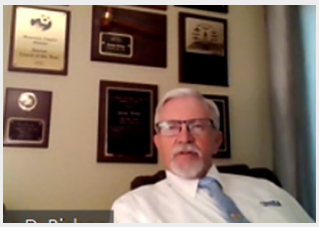


BJ Scott held my attention for the entire times with his advice and knowledge of all the contests offered to TSA students. His presentation divided up the contests by type. It was a fast moving session

as he breaks down many of the competitive events in ways that will make an advisor more comfortable advising their students. He will also give tips to do certain events more effectively. Tips were offered including www.quizlet.com to find practice questions for the Technology Bowl event. Log in and search for Technology Student Association. There are over 9,000 student members up form about 6,300 back in 2012. Last year our state had 175 chapters. As BJ is now President of National TSA, our state is becoming the one being watched throughout the nation.

Ron Vickers explained how he developed a mass production of half bushel wooden crates that got input from other departments in the school and sales throughout the community. Step by step processes will be illustrated with enough detail for teachers without lots of experience in wood laboratories. This project has been successful with several different classes and also a make it - take it teacher workshop. All written documentation that was created will be freely shared.

Know Your Elected Official



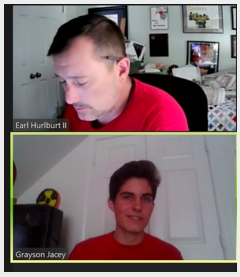
George Bishop presented loads of information and links that anyone can use to promote CTE issues through the Virginia VACTE. VTEEA is only one of the 10 associations they work for.

Veronica Spradlin

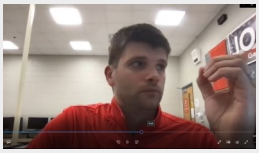
Engineering Instructor at Blacksburg High School. Her session covered basic drone operation and how to incorporate coding for students of all ages.

Talon 540 & First Robotics

FIRST robotics team TALON 540 started in 2000 as a research project for two students in the Science, Math, and Technology specialty center at Mills E. Godwin High School. Today, TALON 540 consists of over 60 members; however, the same principle of student management still governs the team,



and not just for building the rbots. TALON 540 is essentially a student-run corporation; every aspect from public relations to recruitment and rookie training programs is designed and implemented by team members, with the encouragement and guidance of adult mentors and parents. The goal of these dedicated students is not simply to be successful in competition, but also to spread the FIRST ideals to those within and outside the team. Henry Hulbert III had his student produce the video session which was amazing. They focused on **Advocacy for STEM programs** in so many ways.

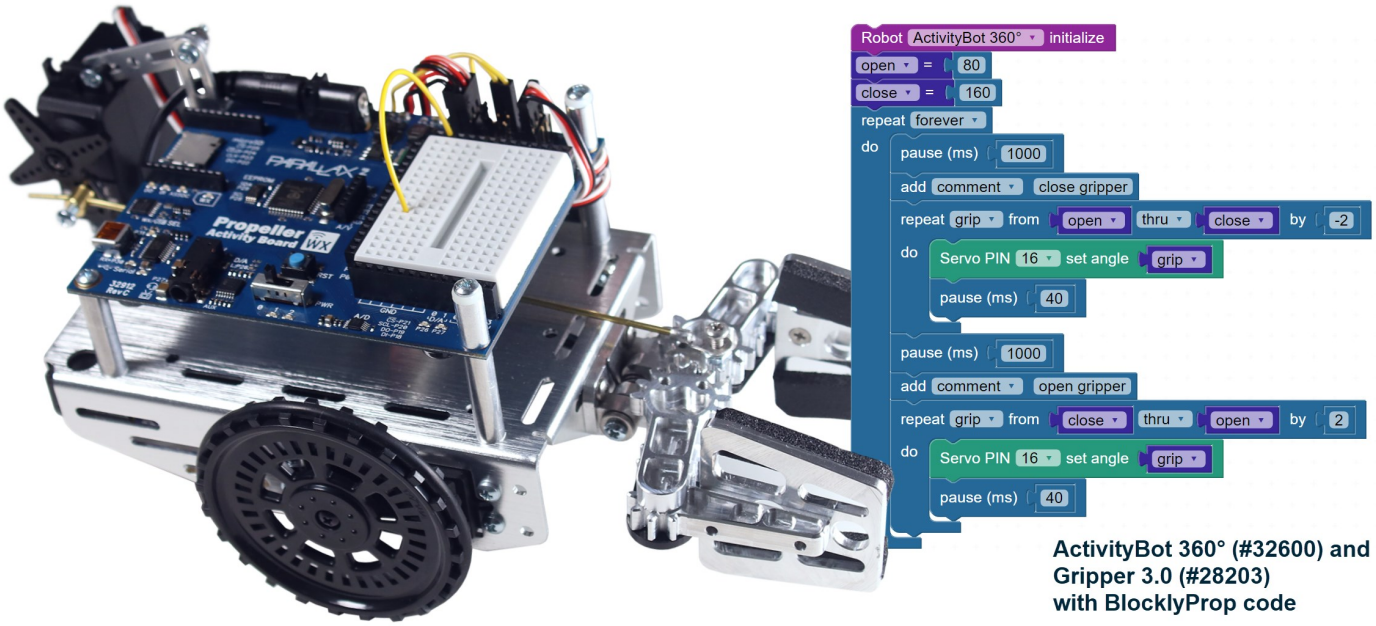


Brent Rose had a session on Virtual Reality Technology in the Classroom. This was exciting and new to many of us.

These are only a few of the 55 different sessions If you registered for the conference, be sure to check out the recorded videos to see ones you missed live! You should have gotten an email providing the link to the google drive folder.

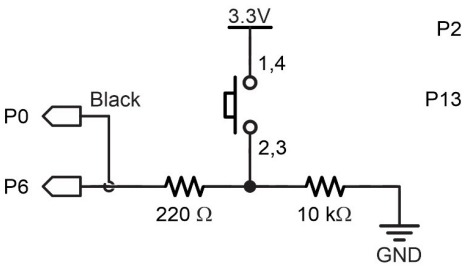
Equip your Students for Skill-Building

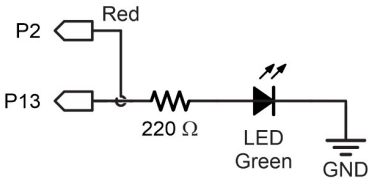
CTE ◉ Electronics ◉ Coding ◉ Robotics ◉ Cybersecurity ◉ Pre-Engineering

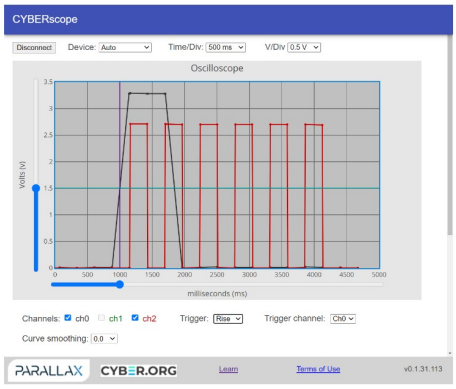


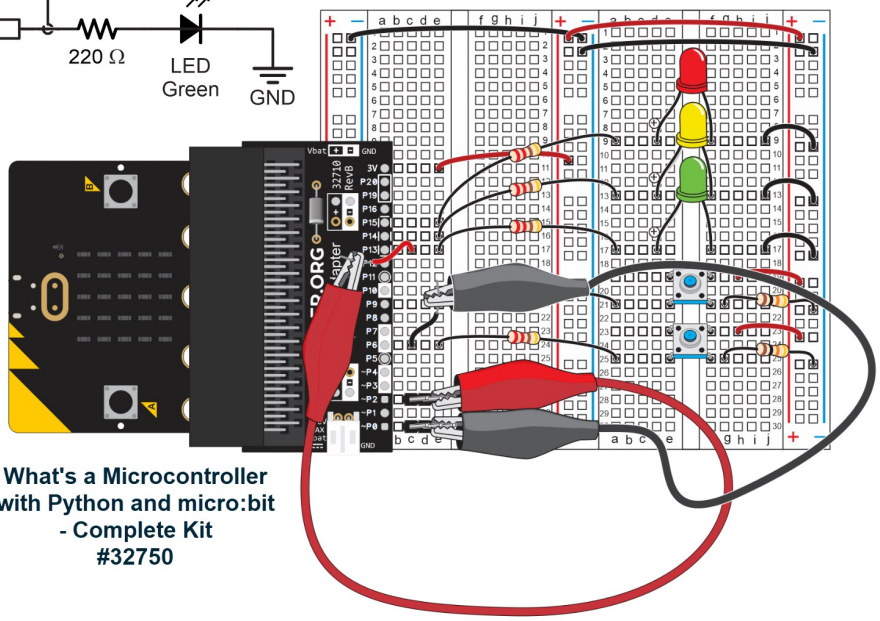
ActivityBot 360° (#32600) and Gripper 3.0 (#28203) with BlocklyProp code

Propeller Blockly & C ◉ micro:bit & Python ◉ Arduino & C ◉ BASIC Stamp & PBASIC









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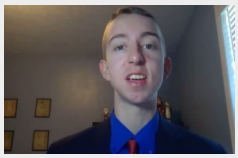


The current Virginia TSA President, Ryan Stinson from Lebanon High School in Southwestern Virginia gave us the perspective from students on how important the work we do really is.

George Bishop is Honored!

Kevin Howell, Executive Director Epsilon Pi Tau, informed George back in March that he was selected as the winner of the 2021 Warner Professional Practice Award for Region 2 Due to this year's ITEEA conference being held virtually, the certificate and award check, in the amount of $500, was mailed to George.

Epsilon Pi Tau (EPT) is the Leading International Honor Society for Technology. *Epsilon Pi Tau recognizes academic excellence of students in fields devoted to the study of technology and the preparation of practitioners for the technology professions.*

The awards program is in honor of William Everett Warner, the founder of Epsilon Pi Tau. An international leader, he gave a lifetime of service and inspiration to young men and women while expressing the ideals of the Honor Society through the medium of education in technology. The awards program is a planned annual competition open to all members of Epsilon Pi Tau.

George received notice recently that the Epsilon Pi Tau Board of Directors reviewed his petition for a Virginia field chapter. We hope to initiate new members in Winchester and informed him it was approved. The new chapter will be known as the Upsilon Field Chapter of Epsilon Pi Tau. Installation of officers and chapter start up procedures is being developed.

Debra (Debra E. Birkness) Shapiro, DTE President Elect at International Technology and Engineering Educators Association (ITEEA). She takes the President position in April. She presented at IEEE in Vienna, Austria (virtually), completed the 21st Century Leadership Academy with ITEEA and was published internationally.

This chapter will become a critical adjunct to the professional development of its members.

Linked In Quotes to those I asked what they thought of the conference:

Lynn Basham 9:08 AM "I was really glad to hear all the positive comments about the conference. Many would like for us to present a hybrid in Winchester. The exhibitors were well received, and I heard people raving about how good the sessions were. They also said the swag boxes were outstanding.

"**Danielle Meyer** 10:45 AM "The VTEEA swag box was a thoughtful contribution to the 2021 conference. It was the extra special touch that kick started the conference count down! The entire conference planning committee, presenters, and sponsors did a fabulous job planning and implementing a virtual event!"

´Give the pupils something to do, not something to learn;

and the doing is of such a nature as to demand thinking;

learning naturally results.´

~ John Dewey

Debra Shapiro, DTE "I had an amazing time talking to teachers about the resources available through ITEEA's Engineering by Design Curriculum!"

Jennifer Tolley 1:05 pm "The conference was easy to navigate and sessions seemed well attended and had good interactions."

Dr. Lynn Basham gave highlights from VDOE. Thank you to the teachers that helped revise curriculum last year. We need teachers for all courses under review. The first two are Communication Systems, which needs major overhaul, and Graphic Communications. . I have TV station people lined up, and a graphic person or two, but no teachers. The state allows me to pay your division for the substitute you will need for one day, and also a stipend for homework. Anyone that teaches these classes has the opportunity to input the actual competencies the state required you to teach! These are virtual four hour meetings. Do not miss this offer!

Awards Given at the Business Meeting

Lynn P Barrier Engineering Leadership Award -
Danielle Meyer, Loudoun County
Special Achievment Award -
Barbara Adcock, Powhatan County
Certificate of Recognition-
Dominion Energy-Emil Avram and Matt Kellam
Certificate of Recognition-
Goochland County CTE
Bruce Watson- Conference Chair, Matt Caratachea, Randy Burts, Tim Greenway, Jay Brockman, Anne Moore and Brent Rose.

Be sure to read about the two ladies that received national board certification last year on page 9.

Retiring Teachers...

Suzanne Bevans
(Henderson High School - Prince William)
John Jose
(Woodgrove High School - Loudoun)
Al Alexander
(Buffalo Gap - Rockbridge)
Karen Conlin
(Mount Vernon - Fairfax)
Wayne Babb
(Westfield High School - Fairfax)
Charles Casey
(Hampton City)
James Barger
(Virginia Beach)

Focus on Us!

Submitted by Jay Brockman

Bruce Watson, who I have had the pleasure of working for throughout most of my career, is currently the *Director of Career and Technical Education for Goochland County Public Schools*, where he oversees programs at both the elementary and secondary levels. Mr. Watson is an alum of Old Dominion University and Virginia Commonwealth University, and has served as a teacher, assistant principal, school principal, and educational specialist over his long and storied career. No job is too big or too small, even stepping in to open the most recent school year substituting for an assistant principal, and it is in these administrative roles that I have come to know Mr. Watson. As a CTE administrator, Mr. Watson prioritizes a hands-on approach to learning, and has been a strong proponent of project-based learning as long as I have known him. A hallmark of any great administrator, Bruce encourages his teachers to incorporate new technologies into their curriculum, and to not shy away from trying new lessons or instructional strategies. As a primary member of the STEM Advisory Committee, Bruce also lends an incredible amount of support to our annual Conundrum Day and STEM Camp, two science and engineering-based events open to the entirety of the school division. Now while I could write all day outlining the successes of the GCPS elementary and middle school programs, I would be remiss not to mention the Goochland Technical Center, established and grown under Mr. Watson's tenure. In addition to woodworking and CAD, G-Tech is home to the division's heavy equipment, building trades, nursing and culinary arts programs, and truly represents the epitome of ensuring students are "college and career ready." Classes at the tech center merge academic knowledge and technical skills in real-world applications, offering students instruction that is high-tech and experiential in nature, and further offering students the opportunity to earn industrial certification and credentials before graduating. As a testament to Mr. Watson's success in the creation of the technical center, it is not uncommon for students to enter apprenticeships as students at G-Tech and have jobs waiting for them upon graduation.

With that in mind, Mr. Watson's educational philosophy can best be summed up in a quote: I try to never tell anyone "no." Not only do teachers working for Mr. Watson enjoy a tremendous amount of support, but this mantra has helped Bruce grow the GCPS CTE Department into a valued community partner in ways beyond the CTE Advisory Committee, which he chairs. From building sheds for Habitat for Humanity at the local Rassawek Spring Jubilee, presenting at the Goochland Sherriff's Office's National Night Out or organizing the division's enormous career fair, an event rarely passes in the Goochland community that does not include the Career and Technical Education department.

Mr. Watson represents the best of what career and technical education can be, and his guidance and support empowers the teachers who work for him to continue offering students engaging and meaningful experiences in the classroom.

Rick Dye— *Louisa Middle School* started in West Virginia via Fairmont State, taught for 19 years, then came back to the middle of Virginia. The five kids and man cave, constructed from recycled plywood has PBR decor. This is a little known fact. Rick has maintained a TSA Chapter for generations of kids in Louisa County winning from time to time. Recently his new CTE director, Kenny Bowens talked about revamping the old modules lab, but that is another story later in this issue.

Words from Rick himself : Hi, I'm Rick Dye, a Technology Education teacher starting my fortieth year of teaching. My love of Technology Education started in eighth grade. I had a multiple activities class (transition name from Industrial Arts to Technology Education. I went to school in Loudoun County attending Broad Run High School, one of the three high schools in the county. In high school, PE and shop classes were really the only classes I excelled in. Running Track and cross country kept me in school. I started my college venture at Cowan College in North Carolina. Because of my high school GPA and school record low SAT score this was about my only option. Drafting was the only CTE course offered at the junior college My road to becoming an Industrial arts teacher was by an invitation to visit Fairmont State College in Fairmont, West Virginia. The coach there was a former track and cross country coach in Staunton Virginia. I was blown away with their Technology Education Department. For Three years I had classes that I loved and that prepared me to be a Technology Education Teacher. The classes: woods, metals, welding, transportation, communication, man tech. and society , material processing and so on were all interesting and an educational experiences. The professors in the program were a mixed bag of educators, some old, some young, this made for an excel-

lent spice for the program. My first job came in 1982 the year I graduated. My folks drove me from Sterling Virginia and dropped me off in West Virginia. I worked nine months and saved enough money to buy a truck. I had previously been walking to work and sometimes hitched a ride. My first battle was getting the administration to understand that shop-Industrial arts had had a name change as well as a curriculum upgrade. It took three years but finally Technology Education was on the schools report cards and curriculum information pamphlets. Then came the personal computer, out with the pencil and in with the mouse and keyboard. Over the past thirty some years the kids sure have taught me a lot. One of the happiest accomplishments in my years in West Virginia was having my school picked to receive one of the first seven modular labs in the state. The state paid for the labs by renting them for three years to be used in the Governor's summer youth program. After teaching nineteen years and coaching thirty some seasons of sports I was riffed. The county decided to cut the high school technology program and cut one middle school position. I had a year less than the high school teacher, so he took my position. With five kids and wife in hand I landed in Louisa County Virginia. The last twenty years have been an amazing experience as a technology education educator. Support from the Louisa County School System has been outstanding. Financially the school system has given me and my students more than I could have imagined. Trips to national and state TSA events, materials, tools and machines, curriculum upgrades and even a lab overhaul has been backed by the administration. The first month I started teaching in Virginia I was visited by the Technology Education Specialist George Willcox. He was just checking in to see if everything was going well and to introduce himself. Virginia Technology Education and Virginia TSA are very special. I have experienced support, comradery and love from VTEEA as well as the TSA family. **I was blessed to land a job here in Virginia twenty some years ago!**

Former VTEEA Program of the Year award recipient gets a major lab upgrade! Kenny Bouwens the Director of CTE STEAM & Innovation, and the programs teacher Mr. Rick Dye renovated the Louisa County Middle School Technology and Engineering Lab this summer. The Lab was originally opened in 1995 and was designed under the old Synergistic Sys-

tems model. Over the past four years, Mr. Bouwens and Dye have been upgrading equipment and adding new technologies like laser cutting, 3D printing, CNC routing and Vex Robotics. It became clear that with all the new equipment and processes going on in the space it was time for a reconfiguration and upgrade. Bouwens and Dye started the planning process in the beginning of May, "it was important to maximize the space and make sure that students were able to experience all aspects of technology & engineering education from hands-on materials processing to high tech computer based applications" , said

Bouwens. One of Mr. Dyes big concerns was storage, any middle school teacher knows that material storage is always a huge hurtle. After the lab drawing was finalized the ordering and stockpiling of furniture and equipment began. With Covid-19 there was no doubt there would be long delays in delivery times. Even with ordering things two months in advance many pieces came in a month after they were projected. It took a ton of phone calls with vendors, and even a few trips to shipping facilities with a truck and trailer to keep the project on schedule. The lab has a computer area, flexible instructional space, an area for laser cutting, 3D printing and even CNC routing along with a space for materi-

als processing. Storage was built into every area to maximize space and efficiency. The renovation itself took approximately 6 weeks, from start to finish, this time includes demo, new flooring, paint and electrical. **"Now that the dust has settled all of the planning and energy that went into the renovation was worth it" said Dye.** The goal at the beginning of the project was to build a space that inspired students to design and create while learning about the importance of technology and engineering. **"It was a busy summer to say the least, but the impact this space will make on the students of Louisa County was well worth the efforts" said Bouwens.** To see before and after photos, a video tour, drawings of the space and a list of furniture and equipment go to, https://drive.google.com/drive/folders/ 16MyT2IAf1lsOOS1pe0jnzKCllhWq1dY4?usp=sharing

Next issue will feature the new cybersecurity lab in Louisa County.

***Jenifer Tolley** teaches at Deep Run High School* in Henrico County. She works with TSA so much she was the VTEEA TSA representative. She tells us more on the next page.

Jennifer Tolley received her B.S. in Engineering Science and Mechanics and M.S. in Engineering Mechanics from Virginia Tech. She started teaching at Deep Run High School in Henrico County in 2013 and will be entering her 9th year teaching at Deep Run. She currently teaches Engineering Explorations, Engineering Analysis and Applications, Engineering Practicum, and Engineering Computer Science using the ExCITE curriculum. Her favorite class is Engineering Analysis because it allows students to get more in depth with many Engineering concepts. In addition to teaching, she serves as the head advisor for her school's TSA chapter. She has had many officers at the regional, state, and even national level and has served the organization in many ways, including as the TSA rep for VTEEA. Last school year she achieved her National Board Certification in Career and Technical Education-Early Adolescence through Young Adulthood in Engineering, Design, and Fabrication. Going through the National Board Process was ARDUOUS but well worth the effort. Her next step is to pursue a Ph.D. in Instructional and Curriculum Design.

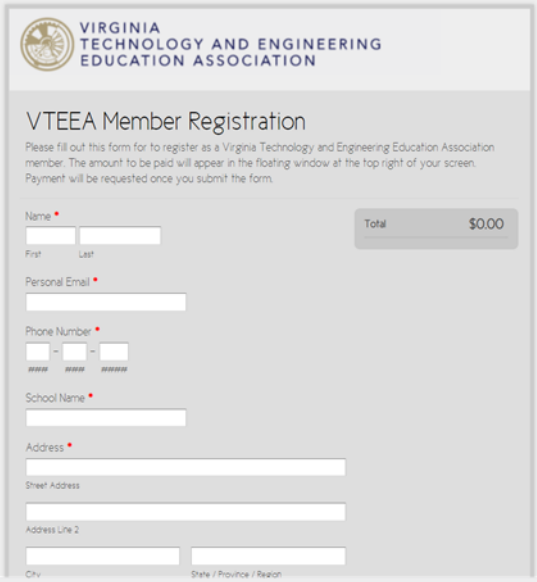
***Michele Gagliardi** teaches at Frank W. Cox High School in Virginia Beach*

Michele was schooled at Old Dominion University to become a Tech Ed teacher. She taught part time at Norview High School in Norfolk and First Colonial High School in VA Beach my first year (Yes, two different systems in my first year!). Luckily, my department chair at First Colonial and other Tech Ed teacher appreciated me, and I was full time the next year. I had a great team and I spent 16 years at First Colonial until enrollment dropped and I had to (involuntary) transfer to Cox High School. This school year will be year 25. My favorite subjects have been Physics of Technology (which is no longer taught in VB) and Technical Drawing (currently teaching).
I currently still work at Cox High School. I only plan to, hopefully, retire as a teacher after I finish year 30. No aspirations for higher office! Achieving NBCT is enough!

Join Your Professional Association Today!

The VTEEA membership fee is still only $20 and has remained this for the last 30 years. With membership you get informed about professional development opportunities, quarterly newsletters, summer conference, networking with folks like yourself, leadership opportunities for board and committee positions, and advocacy for our profession from our aligned organizations.

*It's EASY. Go to www.vteea.org and click on **Membership Information** on the splash page. A google form will come up where you can fill out the application online. You can even pay with a credit card online. So it is one stop shopping to enroll in VACTE, ITEEA , and VCEC all at the same time.*


VIRGINIA TECHNOLOGY AND ENGINEERING EDUCATION ASSOCIATION

VTEEA Member Registration

Please fill out this form for to register as a Virginia Technology and Engineering Education Association member. The amount to be paid will appear in the floating window at the top right of your screen. Payment will be requested once you submit the form.

Name *

First Last

Total $0.00

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School Name *

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City State / Province / Region

*We are at a critical time in our profession, identifying the next generation of Technology Education professionals. Years ago there was a campaign called **"Recruit One!"** which encouraged members to identify at least one person to go into our field and study to become a licensed Industrial Arts teacher. ODU is now the only university in the state graduating individuals to fill the ranks of retiring teachers. it is getting harder to hire replacements. CTE Directors are forced to look further afield into career switchers (such as PE teachers getting certified in Tech Ed) or swords to plowshares program of military retirees getting certified to fill the vacant position. As an association we would like to see Technology Education grow in numbers of classes being taught in the Commonwealth and not programs closing due to shortage of certified personnel. VTEEA is ready to help you learn more about how we can reverse this trend through our governmental committees and seasoned teachers working together. One can think of this as an effort to **"Replace Yourself Someday"** to insure students in the future will be well served. If every member today identified at least one more individual to become a Technology Education to double our ranks, the need just might be filled. ACTION is REQUIRED on your part.*

Look around. Find the student who you believe has the potential to become a Technology & Engineering Education teacher. Encourage your student to consider this dynamic profession that is in high demand. Share resources. Mentor this student to follow through and apply for admission to pursue a Technology & Engineering Education teacher education program. The future of Technology & Engineering Education is in your hands. If every teacher recruited just one, we would not have a shortage.

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CADLearning

Virginia TSA's National top 10s at the 2021 Virtual National TSA Conference

Virginia TSA students outperforms most states!

reported by BJ Scott, TSA Specialist

Middle School

Biotechnology Design: 1st Place: Rachel Carson Middle School

9th Place: Mercer Middle School

CAD Foundations: 1st Place: Sreemayi Gangireddy, Short Pump Middle School

2nd Place: Hayden Williams, Short Pump Middle School

Career Prep: 1st Place: Sreemayi Gangireddy, Short Pump Middle School

Challenging Technology Issues: 1st Place: Rachel Carson Middle School

4th Place: Holman Middle School

Children's Stories: 3rd Place: Holman Middle School

Coding: 4th Place: Short Pump Middle School

6th Place: Luther Jackson Middle School

7th Place: Mark Twain Middle School

Community Service Video: 3rd Place: E.B. Stanley Middle School

Construction Challenge: 8th Place: Holman Middle School

Cybersecurity: 3rd Place: Winston Wang, Rachel Carson Middle School

Data Science and Analytics: 3rd Place: Short Pump Middle School

10th Place: Holman Middle School

Digital Photography: 1st Place: Ryan Day, Eagle Ridge Middle School

8th Place: Hamsika Irukuvajjala, Rachel Carson Middle School

Essays on Technology: 7th Place: Amira Iqbal, Short Pump Middle School

8th Place: Sampriti Muthaswamy, Rachel Carson Middle School

Forensic Technology: 3rd Place: Short Pump Middle School

7th Place: Rachel Carson Middle School

Foundations of Information Technology (FIT): 2nd Place: Rutam Tasgaonkar, Short Pump Middle School

3rd Place: Om Tasgaonkar, Short Pump Middle School

5th Place: Tanvi Pushpala, Mark Twain Middle School

Inventions and Innovations: 6th Place: Tuckahoe Middle School

Junior Solar Sprint: 2nd Place: Short Pump Middle School

Mass Production: 3rd Place: Holman Middle School

Mechanical Engineering: 10th Place: Holman Middle School

Medical Technology: 3rd Place: Rachel Carson Middle School

10th Place: Short Pump Middle School

Microcontroller Design: 6th Place: Luther Jackson Middle School

7th Place: Rachel Carson Middle School

Off the Grid: 7th Place: Short Pump Middle School

Prepared Speech: 1st Place: Sampriti Muthuswamy, Rachel Carson Middle School

3rd Place: Naomi Amhayes, Holman Middle School

5th Place: Dishita Keswani, Short Pump Middle

Promotional Marketing: 1st Place: Nikhil Binoy, Short Pump Middle School

2nd Place: Juliana Ransom, Holman Middle School

STEM Animation: 3rd Place: Short Pump Middle School

5th Place: Blacksburg New School

Tech Bowl: 3rd Place: Short Pump Middle School

Technical Design: 1st Place: Short Pump Middle School

VEX IQ Challenge: 2nd Place: Holman Middle School

Video Game Design: 3rd Place: Rachel Carson Middle School

Website Design: 1st Place: Rachel Carson Middle School

6th Place: Luther Jackson Middle School

High School

Animatronics: 6th Place: Thomas Jefferson High School for Science and Technology

9th Place: Stuarts Draft Middle School

Biotech Design: 1st Place: Mills E. Godwin High School

CAD Architecture: 8th Place: Spencer Emler, Grassfield High School

Chapter Team: 8th Place: Abingdon High School

Children's Stories: 5th Place: James Madison High School

9th Place: Thomas Jefferson High School for Science and Technology

Cybersecurity: 7th Place: Rock Ridge High School

Data Science and Analytics: 10th Place: Thomas Jefferson High School for Science and Technology

Debating Technological Issues: 1st Place: Thomas Jefferson High School for Science and Technology

Digital Video Production: 5th Place: Deep Run High School

Essays on Technology: 1st Place: Anish Aradhey, Harrisonburg High School

10th Place: Isabelle Michalski, Grassfield High School

Geospatial Technology: 10th Place: Mills E. Godwin High School

IT Fundamentals: 7th Place: Vaibhav Vasudevan, Thomas Jefferson High School for Science and Technology

Music Production: 2nd Place: Kettle Run High School

6th Place: Harrisonburg High School

Prepared Presentation: 5th Place: Anish Aradhey, Harrisonburg High School

Promotional Design: 5th Place: Alyssa Manalo, Deep Run High School

Transportation Modeling: 7th Place: Rithwik Erabelly, Chantilly High School

9th Place: Eric Li, Thomas Jefferson High School for Science and Tech.

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Welcome Back to Live and In-Person

We figured out how to teach and learn remotely. Maybe we can use Google Meets outside of class time to supplement learning.

We are in a lab with others. This is NOT your home shop or garage. The organization routines and safety practices help keep all of us ACCIDENT free.

We now have TIME constraints. I have to stress we must utilize every bit of structured lab time wisely. Project work sometimes takes several tries to get it as you want. Focus on the task and do not give up. I allow extra time during your study hall and lunch shift with prior permission.

We teach an Elective course. We hope you will enjoy and excel in this course and then take an advanced follow up course to have your vocational completer for graduation. This is not an easy A class or to fill a hole in your schedule. Go see your Guidance Counselor if you are not interested in being here.

We mess things up some times. Not everything works out perfect the first time you try. It is okay to fail or do something less than perfect. You will have time to redo or try again, from the beginning, if need be. Humans usually learn best by their failures. It took Edison 1000 tries to make a working light filament.

We want you to build skills for a lifetime. Learn how to use tools and machines. Some day you may be glad you do not have to pay someone else to do what you can do yourself.

We use materials in a responsible manner. Learn not to waste consumable items just because you can. This means cutting out smaller pieces from larger ones on the edges and not the middle. Don't throw away a leftover fastener because putting it back is too much trouble.

We love Curiosity and those who want to know WHY. The adults have lots to learn as well. Share your ideas and questions. Together we just might do something that can change the world or set the stage for future studies.

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From idea to object

Fall 2021 is Here!

The board of director's wishes to announce that each regional president is coordinating a back to school professional development session to start us out of the gate quickly. They are intended to get us back together in person to network, make plans, and enjoy what we do best; TEACH.

Valley Region– Brittany Carper *invites everyone to a* Valley Region Fall Kick-Off @ Tue Sep 7, 2021 4pm - 5:30pm at *Sherando High School. Snacks will be provided. A Google link will be provided if you cannot attend in person.*

Northern Region- Rob Dudek *reports that they are going to have a social event soon at a winery or brewery with a tour of the facilities. We are collaborating again with Northern Virginia Community College to provide professional development and hope to have a least one session on our own.*

South Central Region—Alisa Rushing *is working on getting a location and date TBD*

Tidewater Region—San Antonio Crosby has meet with several Regional participants to complete action plans for the Executive Committee and from this point I will make sure to seek new members in my region once our new plans are approved. First meeting TBD

Blue Ridge Region— April Peacock invites members to an after-school event on Tuesday, September 14th between 4-6 p.m. in Blacksburg. Food will be available. Please email aprilpeacock@mcps.org to RSVP and get location no later than noon September 13th.

Southwestern Region—Dustin Carter is inviting you to a scheduled Zoom meeting. Time: Aug 26, 2021 04:00 PM est
https://zoom.us/j/96484930098?pwd=NnBYRDVsUXNFU2VpMmoxWWxlaFRCZz09
Meeting ID: 964 8493 0098 Passcode: VTEEA

An activity that can be tried is to present the

"Back to School Technology Education Olympics". *This fun activity gets you out of your seat quickly to time yourself in different events. Coming off the world Olympics in Japan we can catch the student's energy to introduce them to the lab. Possible events include:*

Technology Education & Engineering Olympics

EVENTS:

All contestants will begin at any of the 7 stations to perform the challenge noted below. While you will be on the honor system to accurately record your times, several Official Judges will roam around during the events to keep us honest and answer questions that may come up. Winners will be recognized for bragging rights.

Tape Measure- You are to extend the measure as far as you can before the tape buckles and falls.

Wooden Parallel Clamp – Using the largest screw clamp time yourself on how quickly you can pick up the yellow cube in the air, set it down, then clamp, and raise the large wooden dice off the bench top.

Scroll Saw Setup - Properly install a blade and make a cut cut, then remove the blade.

Pony Clamp - Use three clamps to face glue two blocks together.

Picture Frame Clamp - You will need to assemble all the parts necessary to clamp together a picture frame of the wood pieces here.

Hammer and Nail – How many swings of the hammer will it take you to fully sink the nail in the 2x?

Wood Identification— Students must identify 5 wood blocks in a row from a tub of 20+ samples

So tally the scores and possibly build a platform of 3 steps to take photos of individual gold, silver, and bronze winners to display in the lab! I'm thinking about using milk crates for the risers. We may make a video of our efforts.

Comments and suggestions are welcome! Send me a note if you see any errors. Ron Vickers, Editor vickersr@fpsk12.net or text 540-860-2807