



President's Message // Brent Johnson, PE, F.NSPE, F.TSPE Vaughn & Melton Consulting Engineers, Inc.

As I sit down to write this update and attempt to determine what would be relevant to each of you. I realize that I have been away from the grind of a full 40-hour work week for some time now and I have had the opportunity to reflect on what I feel best about over

the last 35 years of my engineering career. Likewise, I would like to reflect on our year as an organization and those items that have been significant to us.

As with most engineers, I was (and am) very right brained and was somewhat the typical nerdy engineer. This included being very introverted and having a bit of stage fright when I was young. As a first-generation college student, I was looking for the career that had the most math and that required the fewest people skills.

Life and career hardly ever go as one anticipates but the very thing of which I was most afraid is now my most cherished accomplishment. Those "people" (skills) from which I ran became the very essence of my professional joy. I highly value the relationships that I have built in TSPE and the engineering community at large.

Regardless of whether you lean toward the introverted or extraverted side of the personality spectrum, TSPE has a place for you. Your skills can be utilized, your leadership abilities enhanced, and long-term relationships can be built. TSPE is an organization with lofty goals and distinguished values that focus on the health, safety and welfare of the public. From ethic enhancements to successes in the legislature, I am proud to have been a small part. However, the relationships built with engineers across the state who I now call friends is most meaningful to me.

Therefore, reflecting on 2018 as it comes to a close, I want to offer you some of the milestones from this past calendar year which I believe are most significant.

Engineers' Day on the Hill.

Thanks to Kasey and her guidance, all reports from the 2018 Engineer's day on the Hill were great and many specifically mentioned how well the day was organized. We considered this past legislative session successful. However, as you know, we have had an election since the 2018 Engineers' day on the Hill. Therefore, please make plans for the 2019 Engineers' Day on the Hill. Many seats turned over for a variety of reasons. Therefore, we need both a relationship with a legislator, especially a freshmen legislator, and/or contributions to the PAC. If you have a relationship or a contribution, please let Kasey know. She is in Nashville attempting to build relationships year-round. Sometimes, it takes the PAC to get a seat at the right table.

New NSPE Structure.

Next, I want to thank everyone for the countless hours invested in the new NSPE fee model. It took much vocal dissatisfaction expressed professionally and orderly but pointedly at the last several NSPE meetings to now see the results in our cash flow and budgets. There are too many helpful people to mention but some stood out. Kasey was appointed to a National Membership Committee that influenced the new model. She continues to serve on the fee model implementation committee. Shannon Looney is now serving his 3rd term on the NSPE BOD. We are fortunate to have such a champion for the local member in such an influential role at the National level. Our National delegate who has our votes to accept or reject any NSPE proposals is Randall Braker. He has served the State at many levels and continues to represent us well as the NSPE delegate. Jim Curry, a former National Delegate and Board member to NSPE, who patiently waited on us to determine our best path forward while he wrote and rewrote our policy and bylaws deserves our gratitude as well. Finally, the TSPE BOD who had open, honest and mostly orderly debate to set a sustainable course for the next several years. I believe that it was a collaborative group effort and very well done. Thank you!

Success of the Tennessee Engineers Conference.

And yet again, thanks to more people than I can possibly list here, The Engineers Conference was an awesome success this year with over 600 in attendance. It was a fun productive time of education and fellowship. Although it is hard work, the collaboration required to pull this event off to include such a wide span of engineering organizations, in such a professional manner, requires lots of organization representatives to compromise. I specifically heard compliments on the educational tracks this year. Therefore, we are very appreciative of the professionals responsible for the sessions. Thanks to all of the event sponsors and exhibitors without whom the conference would not be the success that it is. The TSPE professional staff who work diligently toward our goals daily invest many hours into this conference and deserve our sincere thanks as well. As stated previously, this was an awesome event for our current generation of engineers from a variety of perspectives. However, the total value of this event may not be realized until the next generation of engineering professionals are thriving.

Finally, please feel free to contact me about any suggestion that you may have for the coming year. We can always improve, and I would love to hear your comments.

I want to wish you a Merry Christmas and a Joyous New Year.

Brent

TSPE FELLOW MEMBER NOMINATIONS

If you are interested in nominating members for TSPE Fellow status, the deadline for these nominations is June 1. Information about the TSPE Fellow nomination process can be found at <http://www.tnspe.org/Awards>.

INSIDE:

- Engineers' Day on the Hill
- MATHCOUNTS
- PE Review Course
- TSPE Awards

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For additional information about chapter meetings and location, go to www.tnspe.org/leadership

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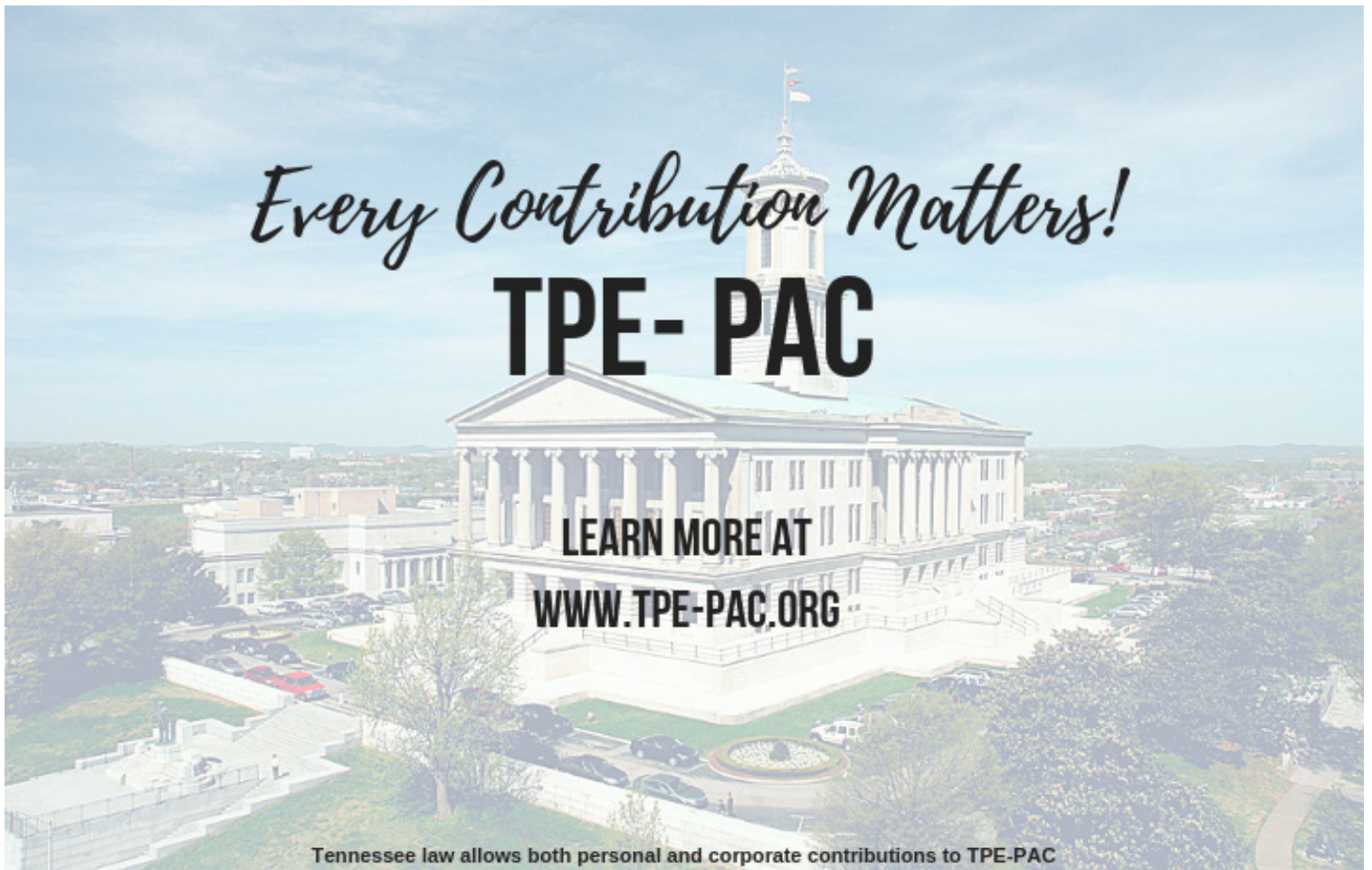
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Tennessee Engineers' Day on the Hill

March 12, 2019

Tennessee Engineers' Day on the Hill - March 12, 2019

There are lots of new faces in the legislature, and it's more important than ever that your lawmakers hear from you. Please make plans to join us for Engineers Day on the Hill on March 12th. No experience necessary! We'll have an optional meeting Monday night to go over the issues, and will have plenty of engineers there to mentor you through the process. Hope you'll join us!

Register for Day on the Hill at www.tnspe.org.

2018-2019 TSPE COMMITTEE CHAIRS

Awards & Scholarship

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Budget

Paul Kelly, PE

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Mack McCarley, PE, F NSPE, F TSPE

Education Outreach

Adam Byard, PE

Legislative & Government Affairs

David Brewer, PE

MATHCOUNTS

Jake Greear, PE

Meetings

Brent Johnson, PE, F NSPE, F TSPE

Nominating

Janey Camp, PhD, PE

Policy Review

Jim Currey, PE, F NSPE

Society Development

Brent Johnson, PE, F NSPE, F TSPE

Tennessee Engineering Center

800 Fort Negley Blvd.

Nashville, TN 37203

615-242-2486

www.tnspe.org

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Assistant Director for Membership and Communication

Kiersten Thompson

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Upcoming Presentation

3D BIM Modeling
January 9th

TOPICS TO INCLUDE:

DRONES



**Wednesday,
October 17, 2018
Garrett Foster,
Parham Engineering**
This lecture will provide an introduction to the fundamentals of unmanned aircraft systems, including their history and developing role in the modern aviation industry.

3D MODELING



**Wednesday, January 9th, 2019
David Headrick, KCI Technologies Inc.**
Building information modeling (BIM) is a process involving the generation and management of digital representations of physical and functional characteristics of places.
He will discuss revit modeling pointclouds for mapping existing conditions, clash detection, and augmented/virtual reality.

3D PRINTING TECHNOLOGY



**March 2019
Speaker from Advanced Manufacturing Facility, TBD**
This lecture will demonstrate how 3D printers work, show what people are currently making with them, and examine the 3D printing ecosystem. It will also explore the future of 3D printing and discuss how this technology will revolutionize our world.

LOCATION

AMS Technology Center
9119 Cross Park Dr.
Knoxville, TN 37923

REGISTRATION

For more information or to register for one or more of the seminars, please contact Josh Cole at:
knoxtspe@gmail.com.

These lectures will last from 12:00 - 1:00 PM.
There is a \$5 registration fee to attend each seminar.
Lunch will be provided.

Each lecture will be limited to the first 40 registrations.

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Continued: Nashville's Own "Hidden Figure" Dies at Age 89

After receiving numerous job rejections due to her gender, Clark worked at Frankford Arsenal Gauge Labs, in Philadelphia, before moving to the Electronic Tube Division at 25 years of age for the Radio Corporation of America (RCA) in Montclair, New Jersey, where she designed electrical equipment with 18 other male colleagues. Following her 1955 marriage to William F. "Bill" Clark, Jr., Y.Y. returned to the South and visited the Ford Glass Plant in search of a job. After being told, "We have no use for you," she then asked TSU if they needed an engineering professor and became the first woman to serve on the faculty of the College of Engineering and Technology at Tennessee State University.

In the 1960's, because at the time TSU was not a year round university, Y.Y. would return to do work with the government during the summers. During these summers she worked as an Aerospace Engineer (Flight-General) at NASA Marshall Space Flight Center, Huntsville, Alabama investigating the Saturn 5 Rocket Booster engines hot spot issues. Clark also worked at the NASA Manned Spacecraft Center in Houston, TX on the moon rock samples container for transporting moon rocks back to Earth.

In 1970, Clark became the first African-American woman to receive a Master's Degree in Engineering Management at Vanderbilt University. She returned to the Ford Glass Plant for the second time where this time she was hired as the first woman engineer at the plant and joined the design team to the rebuild the float glass furnace. After completing her work at Ford Glass Plant she returned to TSU and continued her teaching until her retirement in 2011. After retirement, Y.Y. was granted "Professor Emeritus" status by the College of Engineering.

Throughout her lifetime, Clark has received numerous awards including Women of Color Technology Award for Educational Leaders, Distinguished Engineering Educator Award, Tennessee Society of Professional Engineers' Distinguished Service Award, Delta Sigma Theta Sorority, Inc. Nashville Alumnae chapter's Educator of the Year Award, and the President's Distinguished University Award from TSU for 50 years of loyalty, dedication and determination during her academic career.

Georgianna Yvonne Young Clark was born on April 13, 1929 in Houston, Texas to Dr. Milton Young, Jr., M.D. a general practitioner and surgeon and Hortense Houston Young, a library scientist and journalist. Y.Y. was a Fellow and a Life Member of Society of Women Engineers (SWE) and American Society of Mechanical Engineers (ASME). At TSU, she chartered Student Chapters for the following Professional Organizations: SWE, ASME, and American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). Y.Y. was a charter member of the first Tennessee State chapter of the mechanical engineering society Pi Tau Sigma the National Mechanical Honorary Society - Alpha Delta Chapter. She was a TSU link for the "Order of the Engineer".

Y.Y. Clark was a Charter Member and Life Member of the Nashville Alumnae Chapter of Delta Sigma Theta Sorority, Inc., The Hendersonville Area Chapter of The Links, Inc. She was a member of The American Society of Engineering Education (ASEE) and a licensed Professional Engineer. She served on the Executive Committee of the Society of Women Engineers (SWE), and was a member of the Music City Chamber of Commerce. She volunteered at the Eighteenth Avenue Family Enrichment Community Center.

Y. Y. Clark was preceded in death by her beloved husband of 39 years Bill Clark. Y.Y. is survived by her brother Dr. C. Milton Young, III, M.D. and his wife Waltraud of Louisville, Kentucky. Her children Milton Hebert Clark, Sr. and daughter Carol Yvonne Lawson and son-in-law Eric Lawson, and grandchildren Paris Nicole Lawson and Milton Hebert Clark, Jr.

Viewing will be held on Friday February 1, 2019 from 9:00 AM till 12:00 Noon with visitation with the family held from 12 Noon till 2:00 PM at New Generation Funeral Home located at 2930 Murfreesboro Pike, Antioch, TN 37013. Prior to the Celebration of Her Life Service at 6:00 PM on Friday, February 1, 2019 at Mount Gilead Missionary Baptist Church, 901 Acklen Avenue, Nashville, TN 37203, another visitation with the family will be held from 4:00 PM till 5:00 PM. The Links, Inc. Service will start at 5:00 PM and the Delta Sigma Theta Sorority, Inc. Omega-Omega Service will begin at 5:30 PM. Interment will be at 12:00 Noon EST at Cave Hill Cemetery in Louisville, Kentucky.

In lieu of flowers, contributions may be made to the [Y.Y. Clark Annual Engineering Scholarship Fund](#) via a check sent to Darlene G. Harris-Vasser Assistant Director of Donor Relations, TSU Foundation, 3500 John Merritt, Box 9542, Nashville, TN 37209. Phone Number: (615) 963-9764 Ext. 5794.



2018 TSPE AWARD WINNERS

DISTINGUISHED SERVICE AWARD

Randal Braker, PE
Duck River Utility Commission

OUTSTANDING ENGINEER AWARD

Tommy Northcott, PE
Jacobs Technology, Inc.

YOUNG ENGINEER AWARD

Seth Fischer, PE
Cannon & Cannon, Inc.

OUTSTANDING EMPLOYER AWARD

Vaughn & Melton Consulting Engineers, Inc.



Randal Braker, PE (right) accepting the TSPE Distinguished Service Award from TSPE Awards chair Seth Dobbys, PE (left)



Brent Johnson, PE, F.NSPE, F.TSPE (right) accepting the Outstanding Employer Award on behalf of Vaughn & Melton Consulting Engineers from TSPE Awards chair Seth Dobbys, PE (left)



Tommy Northcott, PE (right) accepting the TPSE Outstanding Engineer Award from TSPE Awards chair Seth Dobbys, PE (left).

MATHCOUNTS®

CHATTANOOGA CHAPTER COMPETITION

February 2, 2019
University of Tennessee Chattanooga
Coordinator: Jeffrey Parris, PE

KNOXVILLE CHAPTER COMPETITION

February 2, 2019
University of Tennessee Knoxville
John Tickle Bldg.
Coordinator: Dr. Chris Cox

MEMPHIS CHAPTER COMPETITION

February 2, 2019
Southwest Tennessee Community College
Coordinator: Drake Danley, PE

NAHSVILLE CHAPTER COMPETITION

February 9, 2019
Tennessee Engineering Center (Adventure Science Center)
Coordinator: Nitaya Chayangkura, PE

TULLAHOMA CHAPTER COMPETITION

February 2, 2019
UT Space Institute
Coordinator: Michael Millraney, PE

UPPER EAST CHAPTER COMPETITION

February 2, 2019
Regional Center for Advanced Manufacturing
Coordinator: Brandon Stevens

TENNESSEE STATE COMPETITION

March 9, 2019
Tennessee Engineering Center
(Adventure Science Center)
Coordinator: Jake Greear, PE

TSPE is always looking for additional volunteers to assist with both Chapter and State Competitions. If you are interested in volunteering please contact [Jake Greear](mailto:jake.greear@tnspe.org) at 865-540-0801 or [Kiersten Thompson](mailto:kiersten.thompson@tnspe.org) at 615-242-2486. visit www.tnspe.org/mathcounts for more information.

Nashville's Own "Hidden Figure" Dies at Age of 89



Mrs. Yvonne Y. Clark, P.E., a Woman of Firsts, Leaves Behind a Rich Legacy Nashville, Tenn., January 28, 2019 – The family of Professor Y. Y. Clark, P.E. is saddened to announce the death of the distinguished pioneer for African-American and women engineers. Clark passed away peacefully in her sleep on Sunday at the age of 89 at her Nashville residence. She was the first woman to receive a Bachelor of Science Degree in Mechanical Engineering at Howard University, the first woman to serve as a faculty member in the College of Engineering and Technology at Tennessee State University (TSU), and the first woman to earn a Master's Degree in Engineering Management from Vanderbilt University. A year following her college graduation from Howard University in 1951, Y.Y. as she was known professionally, integrated the Society of Women Engineers, which boasts more than 37,000 members throughout the United States.

Affectionately called "TSU's First Lady of Engineering", Clark taught Mechanical Engineering for 55 years in the College of Engineering and Technology at Tennessee State University, where she also served as Mechanical Engineering Department Head twice. At TSU she also acted as Freshman Advisor for all incoming students to the College of Engineering. The current Dean of the Engineering School, Dr. S. Keith Hargrove, was one of Y.Y. Clark's former students.

In 1947, Y.Y. was awarded a full scholarship to the University of Louisville in Louisville, KY. When it was discovered she was African American, the school rescinded the scholarship due to its segregation policy. Following a threat of a lawsuit by the Young family, the University of Louisville paid for Clark to attend HBCU Howard University in Washington, D.C., where she earned top honors. She was the only woman in her graduation class of 300 engineering students to earn a Bachelor of Science in Mechanical Engineering. Due to the sexism of the day, Clark was not allowed to march with her male classmates and therefore received her diploma in the office of the university president.

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