Spring 20 **21** <u>KENTUCKY</u> 2021 Kentucky MATHCOUNTS Scholarships Awarded NSPE-KY Kentucky ENGINEER **Volume 61** page 20



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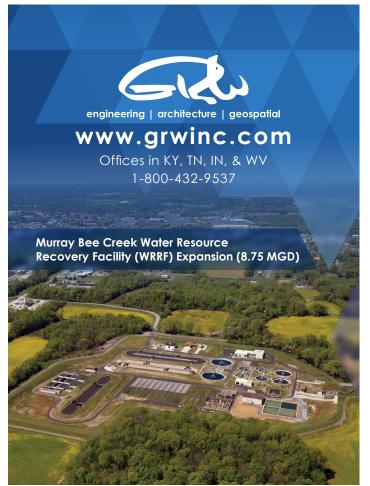
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Toyota (TMMK) investing \$1.7M in new scholarship program to increase equitable access to engineering degrees for minority students



20 2021 Kentucky MATHCOUNTS Winners Announced Congratulate this year's MATHCOUNTS competitors and get to know Kentucky's Mathletes



Cover design by Ashlyn Crawford Magazine design by Hayley Robb

President's Statement

Darin Hensley, PE, PLS, PMP

Am I on mute? Those were the first words I penned as your president; it seems fitting to wrap up my run as president with them. It is hard to believe what we've lived through over the past year. It was truly my honor and privilege to serve as the 87th president of the Kentucky Society of Professional Engineers. Thank you for putting your faith in me, offering help along the way and for your support of our profession through participation in our organization.



I'm extremely proud of our leadership team and the KEC staff who have pulled together and risen to the challenge of meeting the needs of our membership.

ANNUAL CONVENTION

We made the difficult decision to cancel the 85th annual convention last year. But this year we have been hard at work planning an amazing convention for July! I'm looking forward to seeing everyone in person and catching up. It will be great to gather and socialize again! Please check out the slate of speakers and sessions and sign up early. Registering early will greatly assist our planning group as we try to gauge how many members are planning to attend.

MATHCOUNTS

As you will see in this issue's MATHCOUNTS article (page 20), national MATHCOUNTS, once again, made the decision to shift this year's competition to a virtual setting. I feel for our students and the challenges they have faced over the course of this pandemic. Many of you are parents with young children and I know you have dealt with the burden just as much as I have. It truly takes a village.

LEADERSHIP PE

Leadership PE is BACK! After a hiatus we are extremely excited to get this essential program back up and running. We look forward to finally providing a proper graduation for the 2019-2020 class at this summer's convention.

When we listen with the intent to understand others, rather than with the intent to reply, we begin true communication and relationship building. Opportunities to then speak openly and to be understood come much more n a t u r a l l y and easily.

- STEPHEN COVEY

As an alumni, I speak from personal experience and highly recommend the program.

Applications for our 2021-2022 class are due June 30.

SLÁINTE

Given the state of the world today and the events that we have witnessed unfold, thanks to ready access to everything from the phones in our pockets, I would like to close by recommending that we all slow down. Let us listen before we speak. Listen with the intent to understand. Don't find fault, find a remedy. These statements

are paraphrased from Stephen Covey, from the book of James, and from a fortune cookie... and they all say the same thing. As engineers, we often serve as leaders in our communities. Join me in serving as a leader that is willing to do the right thing, to listen when others will not and to commit to finding a remedy.

As I have stated with each of my articles, I'm grateful for the loving support of my family and the support of Mason & Hanger. I would not have been able to serve as your President without them backing me up. Sláinte!

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Executive Director's Statement

Russ Romine

Nothing beats Kentucky in the spring! Whether it's the beauty of the flowers in blooms, the budding trees or the excitement that surrounds the first Saturday in May, you would be hard pressed to find a more spectacular place on earth this time of year.

Whether you are into horses, distilled spirits, arts and crafts, culinary delights or the outdoors... Kentucky truly has it all! And with vaccinations up and COVID-19 restrictions down, we can finally make plans to get out and about and enjoy all that Kentucky has to offer.

As we look ahead, here are some opportunities you can enjoy in the coming weeks and months.

ANNUAL CONVENTION

This will be our first opportunity to gather in over two years, so mark your calendar and make plans to attend the 2021 Kentucky Society of Professional Engineers Annual Convention!

The convention will be held **July 21-23** at the Marriott Griffin Gate Resort in Lexington.

Convention details, including the full schedule of events and seminars and link to registration, can be found here.

I can't think of a better way to reconnect with friends and colleagues, while earning PDHs! We continue to monitor COVID-19 developments and are working closely with the hotel to ensure all guests will be safe and all current guidelines followed.

July 21-23 2021 NSPE-KY Annual Convention

LEADERSHIP PE

For those who have participated in the Leadership PE program over the last 20+ years, you know how impactful the experience is. For those who haven't, your opportunity to apply for the 2021-22 class is here! If you, or someone you know, are interested in this exceptional leadership program designed specifically for engineers, now is your chance to apply. Applications are due June 30, and the candidates for next year's class will be announced at this summer's convention. All sessions will be inperson and the Orientation Session will kick things off at Lake Cumberland September 16-18.

For more details and to apply, please follow this link

Leadership PE applications due June 30

KENTUCKY ENGINEERS GOLF CLASSIC

Like most things, our annual golf tournament was a casualty of the global pandemic last year. But, like our annual convention, we want this year's event to be bigger than ever. Please make plans to play in the 2021 Kentucky Engineers' Golf Classic on Wednesday, September 15, at the University Club of Kentucky in Lexington.

We have both courses reserved and anticipate over 200 golfers joining us for fun on the links. Proceeds from this event support the annual NSPE-KY George M. Binder College Scholarship. Watch your inbox for registration opening soon. Sponsorship opportunities are also available, so please contact the Kentucky Engineering Center for more details.

Sept. 15 2021 Kentucky Engineers Golf Classic





86th NSPE-KY Annual Convention July 21 - 23, 2021

Lexington Griffin Gate Mariott Golf Resort & Spa

FINAL THOUGHTS

I want to thank Darin Hensley for his service and dedication to the Kentucky Society of Professional Engineers as your president this past year. As he began service on the NSPE-KY board many years ago, he never imagined serving his term as president during an historic pandemic. Nonetheless, for those who know Darin, you know his passion for the profession and this organization. Darin has been a great "wartime" president and we thank him for his steady, strong leadership and service!

As we soon begin a new fiscal year, we are excited to work alongside incoming NSPE-KY President Lora Boller and the rest of the leadership team for 2021-2022. Lora has been a valued member of leadership for many years, and she is ready to lead NSPE-KY in the weeks and months ahead. If you are interested in becoming more involved in the direction of the

society—whether at the chapter, state or national level—please contact Lora, a member of the Board of Directors or your staff at the Kentucky Engineering Center.

Lastly, as I regularly highlight, please follow us on social media. We are on Facebook, Twitter, <u>Instagram</u> and <u>LinkedIn</u> (under KEC). When you share, like or retweet our message, you expand our reach and promote your organization. We appreciate your support!

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Kentucky Route 9, Newport, KY: Photo & design courtesy of Gresham Smith.

MEMBER SPOTLIGHT

NSPE-KY is dedicated to promoting the ethical, competent and licensed practice of engineering while enhancing the professional, social and economic well-being of both returning and new members of the organization. Please welcome Steve Baker to NSPE-KY.

Q&A SEVEN QUESTIONS WITH STEVE

Why engineering?

Like most engineers, I gravitated towards engineering at a young age. I was always pretty good at math and I loved the problem solving aspects to engineering.

How did you get to the position you're in now?

I ask myself this same question often! I suppose the short answer is that I have been blessed with a number of great opportunities and friendships that opened doors for me. I have worked for a heavy construction contractor, a large consulting firm, as well as managed a water/sewer utility prior to transitioning full-time to Midwest Engineering, Inc. (MEI). I have always been an entrepreneur at heart and MEI has given me the chance to fulfill that dream.

3 Why did you join NSPE-KY?

I was recently reintroduced to NSPE-KY through MATHCOUNTS. My middle child competed and was fortunate enough to win his chapter competition this year. That process reminded me of the value of NSPE-KY and made me want to support our profession and help the next generation of engineers find their place.



Steve Baker | Principle Engineer and Owner of Midwest Engineering, Inc. (MEI).





What do you hope to gain from NSPE-KY?

I hope to connect with other engineers and find new avenues to give back to our profession.

Are there any organizations you're actively involved in outside of NSPE-KY?

I am active in my local church. I have been a member of the KY/TN Clean Water Professionals and American Water Works Association (AWWA) for many years. I recently completed a two-year term as President of the Kentucky Municipal Utility Association.

Best engineering memory you have?

In 2011, I was part of a team of engineers and water treatment professionals that visited Honduras to help solve water access and treatment issues for a number of rural communities. It was a life changing experience and stands as a reminder for how engineering is so much more than a way to make a living.

What's your favorite part about your job?

I still enjoy the problem solving nature of our business. Every project has its own set of challenges and possibilities. There's no better feeling than seeing a project move from a client's concept to full completion.

Favorite movie? The Godfather

Favorite restaurant?
Blue Door Smokehouse
(best brisket on the planet!)

Superpower of choice? Why?

Time travel. I'd love to go back in time and hang out with both of my grandfathers.

1

(3

Board of Licensure Report

James Ed Manning, Executive Director

COVID-19 UPDATE

As the COVID-19 pandemic enters its second year, the board of licensure continues to respond. The board office remains closed to walk-in customers. Licensees, applicants and citizens are urged to utilize online services and to attempt to have their issues resolved via email or telephone before considering an in-person visit.

If an in-person visit is the only alternative, an appointment can be arranged. All visitors are required to undergo a temperature check and answer COVID-19 screening questions before entering, and if granted entry, must wear a mask.

In-office staff is currently limited to 50% capacity. All staff members are reporting to the office on a part-time, rotating basis to stay within capacity limits and are working from home the remainder of the time. Office hours continue to be Monday through Friday 8 a.m. to 4:30 p.m.

Since April 2020, all board and committee meetings have been held virtually. Visitors are able to see and hear the meetings live online. We will return to in-person meetings as soon as it is safe to do so, but for now we will continue with virtual meetings. Instructions for public access are posted on the board website in advance of each meeting.

The spring 2020 meeting of the Southern Zone of NCEES member boards was cancelled. The August 2020 NCEES annual meeting was held virtually with an abbreviated agenda. The Southern Zone

member boards met virtually in mid-April 2021. Current plans for the July 2021 NCEES annual meeting in New Orleans are for an "in-person" meeting but with a reduced number of delegates from each state in order to stay within capacity limits at the meeting venue.

Many NCEES license exams were cancelled in 2020 including both paper-based exams as well as computer-based exams. Computer based testing venues are back open, but with reduced capacity. So far, venues in Kentucky seem to be meeting the demand for exam seats. The April and October 2021 paper-based exams are being held, but at reduced capacity. There haven't been any testing issues as our test venue is big enough to meet the demand while maintaining adequate social distancing and adhering to health guidelines.

LICENSE RENEWALS

If you are a licensed Professional Engineer (PE) and/or Professional Land Surveyor (PLS) and the first letter of your last name is within the range A–K, your license will expire on June 30, 2021.

You can renew your license online at the <u>board website</u>, then click "Already Licensed" and follow the prompts, or type this <u>link</u> in your browser. Once there, just answer a few questions and pay with your credit card.

While we have made the renewal process easy, there are a few important tips to remember (see the following page).

Renew on time.

All licenses expire on June 30 of the licensee's renewal year. Those who renew after that date will be charged a 10% late payment penalty for each month or part of a month that the renewal is late. Moreover, while the regulations permit a licensee to renew his or her license for up to a year after it expires, the licensee is not authorized to practice engineering or surveying on an expired license.

Answer all renewal questions completely and honestly.

This includes questions about compliance with CPD, disciplinary action by another licensing board, and criminal convictions. If there is an issue, board staff will work with you to resolve it. Providing false information on a renewal application can be grounds for disciplinary action against your license.

Avoid a Late Renewal CPD Audit.

Any licensee who renews on or after September 1 of his or her renewal year is subject to an automatic CPD audit. This is just one more reason to renew on time!

The board sends out a renewal notice to every active license holder at least 30 days prior to the expiration date to the address provided to the board by the licensee. This notice notwithstanding, each individual licensee is ultimately responsible for maintaining his or her license in current status. We, therefore, suggest that you set a reminder in whatever calendar or scheduling system you use to make sure you don't miss a renewal. Additionally, it is a good idea to regularly update your contact information to the board, including mailing address, email address and telephone numbers.

FIRM RENEWALS

All Business Entity Permits (aka Firm Permits) expire on December 31 every year. The rules regarding late renewal penalties and prohibition of practice while expired apply to Firm Permits in the same way as they apply to individual licenses.

The window for online renewal of Firm Permits will open about mid-November. Please mark your calendars accordingly.

EXAMS

The transition to Computer Based Testing (CBT) is almost complete. With the exception of the Structural Engineering PE exams, all of the remaining paper-based exams will be administered for the last time in paper-based format in October 2021.

Beginning in 2022, the paperbased Structural Exams will be administered on a regional basis at approximately 16 locations across the country. NCEES has not yet announced those locations.

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Enforcement Actions Summary

January 1 - March 31, 2021 Kyle Elliott, Director of Enforcement

JOSEPH H. SIMMONS, JR., PLS

In late 2018, the Board of Licensure received a written complaint from a landowner in Daviess County, KY. The landowner alleged that Joseph Simmons' survey of his neighbor's property deviated from the Standards required by the Board. A subsequent investigation by the Board found multiple violations of the Standards of Practice (201 KAR 18:150) of a technical nature. A review of three recent survey plats also found the same violations of the Standards. To resolve these violations, Mr. Simmons entered into a Consent Decree with the Board of Licensure wherein he acknowledged the violations and agreed to: (1) receive a written reprimand; (2) pay an administrative fine of \$1,000; (3) complete a four-hour seminar in the Standards of Practice within six months; and (4) have his land surveying license placed on probation for 2 years with quarterly project reviews. The Board of Licensure approved this Consent Decree on April 9, 2021.

Calender of Events 2021

JUNE

· June 14: Registration for October Exams Opens

JULY

- · July 21-23: KSPE Annual Convention | Lexington
- · July 29: Committee Meetings | Virtual
- · July 30: Board Meeting | Virtual

AUGUST

- · August 19-20: NCEES Annual Meeting | New Orleans

· August 26: Registration for October Exams Closes

For up-to-date information on the NCEES schedule for both paper-based and computer-based exams, visit ncees.org/exams/schedule/

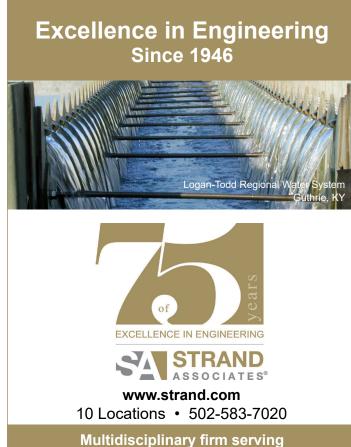
SEPTEMBER

· Sept. 29-Oct. 2: KAPS Annual Conference | Lexington

OCTOBER

- · Oct. 21 & 22: NCEES Paper & Pencil Exams | Louisville
- · October 28: Committee Meetings | Virtual
- · October 29: Board Meeting | Virtual

For public access instructions for all board and committee meetings, visit our calendar here.



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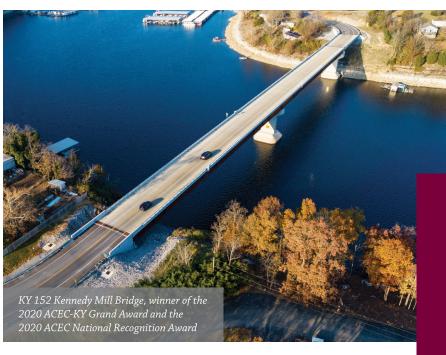
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One of the world's largest automakers is teaming up with three institutions of higher education in Kentucky to help change the face of engineering.

In late April, Toyota announced a \$1.7 million investment to increase opportunities for underrepresented students and assist them in earning engineering degrees.

Pending approval from the University of Kentucky Board of Trustees, the gift will be used to establish and support the Toyota Engineering Technology Diversity Scholarship Fund, which will provide annual scholarships for undergraduate students from the University of Kentucky, University of Louisville or Bluegrass Community and Technical College (BCTC).

Preference will be given to students whose ethnic, racial, gender or background would enhance the diversity of their institution, as long as these preferences are narrowly tailored to the university's achievement of its interest in obtaining the educational benefits of a diverse student body. However, every student who is enrolled in the program, is a Kentucky resident and has unmet financial need will have an opportunity to compete for the scholarship.

"Building a stronger Kentucky will require deliberate and sustainable efforts to provide equal access to quality education. This program will give more people a chance to build great careers in fields like engineering," Susan Elkington, president of Toyota Motor Manufacturing Kentucky (TMMK), said. Toyota is committed to providing resources, time and knowledge to help build stronger communities in which we operate. We're thankful for great education partners that have the same mission."

Beginning Fall 2021, 35 students over a five-year period will be selected to receive full-tuition scholarships. In addition to the

preferences, participation in the program and Kentucky residency status, recipients will be determined after a review of the applicants' qualifications, such as academic merit, extracurricular and volunteer activities, and professional goals.

The students will be mentored by Toyota engineers and participate in a paid co-op opportunity with the company earning \$17-\$21 per hour. Additionally, they will complete two to three co-op rotations that will provide critical hands-on experience.

"Toyota has been a longtime partner of UK, since locating in Kentucky nearly 35 years ago," Rudolph Buchheit, dean of the UK College of Engineering, said. "This is another example of Toyota seeing a need and stepping up to do something about it. It's imperative to increase gender and ethnic diversity among our faculty, staff and students."

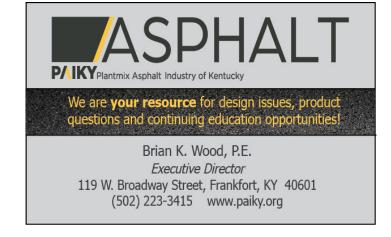
"There is critical shortage of women and minorities in the engineering workforce," Emmanuel Collins, dean of UofL's J.B. Speed School of Engineering, added. "Toyota's investment and partnership to help diversify our talent pipeline perfectly aligns with the university's goals, and we are grateful to be a part of this collaboration."

Stephen Brennen, vice president of production engineering at PEMC, agrees that strengthening the industry's talent pipeline and staying ahead of customer demands will require new ways of thinking. "Not only for the continued growth and innovation of the field, but also to help Toyota move forward as we work toward our mobility vision for the future."

Greg Feeney, BCTC's provost, echoed the others and added, "Diversity creates rich and productive workplaces and communities. We are pleased to join Toyota and our university partners to create opportunities for students."









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KENTUCKY MATHCOUNTS®

After 37 years of successful events, MATHCOUNTS cancelled its annual state competition last spring due to COVID-19. However, that didn't deter coaches from continuing their team's rigorous practices or students from preparing for the upcoming year.

MATHCOUNTS program directors quickly adapted and came up with a strategic plan to host this year's event by teaming up with Art of Problem Solving (AoPS)—an online platform—and delivering Chapter, State, and National Competitions on a virtual platform. Chapter coordinators played a large part in making sure all students had access and a chance to compete. Proctors were—now more than ever—in higher demand than before. This year's competitions were made possible by the extraordinary efforts of all coordinators, volunteers,

proctors, and our donors! We thank you for your service to Kentucky MATHCOUNTS.

On February 5, approximately 500 students were slated to compete for the first round of Kentucky MATHCOUNTS Chapter Competitions. The top student from each school and the top 20% of students from each Kentucky Chapter advanced to the Kentucky MATHCOUNTS Chapter Invitational Competition. The first-place individual finisher at each of the 13-chapter invitational competitions earned a four-year (\$3,000/year) partial tuition scholarship to the University of Kentucky's College of Engineering, or a four-year (\$1,000/year) scholarship to Western Kentucky University, plus a \$500 cash scholarship from the Kentucky Society of Professional Engineers.

2021 First Place Kentucky MATHCOUNTS Chapter Invitational Winners

Eric E. WareAshland Chapter

Timothy Bryce Ferguson

Big Sandy Chapter

Arimitsu Horikawa- StrakovskyBluegrass Chapter

Mahmood O. Ateyeh Capital Chapter

Benjamin N. Baker Cumberland Falls Chapter **Landon Block**Green River Chapt

Green River Chapter

Amber Erin Wu Kentucky Lake Chapter

Elisabeth Scott Miller Kentucky River Chapter

Nihal K. Jacob Louisville Chapter

Grant Edward ClemonsMammoth Cave Chapter

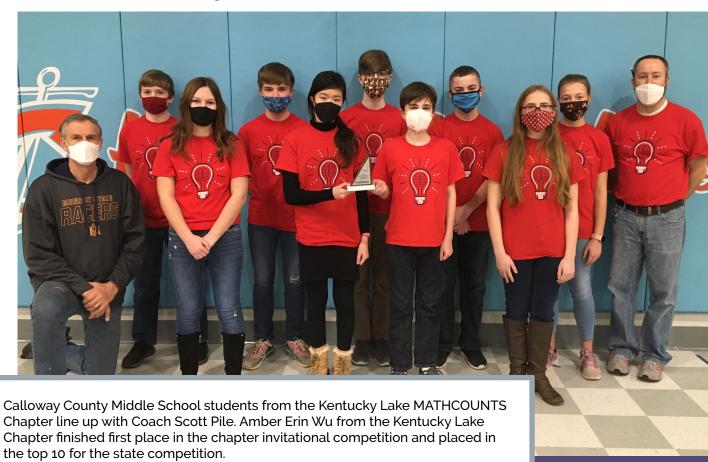
Brock Randlett

My Old Kentucky Home Chapter

Aryan ChinthalaNorthern Kentucky
Chapter

Sayed Damaa Pine Mountain Chapter

2021 Kentucky MATHCOUNTS Chapter Winners



2021 Top 10 State Finalists

Nihal K Jacob

South Oldham Middle School-Crestwood

Victoria T. Fu

Meyzeek Middle School-Louisville

Sri Sumukh Vulava

Meyzeek Middle School-Louisville

Aryan D. Agahtehrani Kentucky Country Day School-Louisville Manas Garla

Bondurant Middle School-Frankfort

Thomas Ed Mosely

Beaumont Middle School-Lexington

Samuel Kingston

Meyzeek Middle School-Louisville

Summer Li

Meyzeek Middle School-Louisville Amber E. Wu

Calloway County Middle School-Murray

Sohan Sen

Meyzeek Middle School-Louisville

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Winning the chapter invitational round will be with me for the rest of my life. - Mahmood Ateyah, Bondurant Middle School

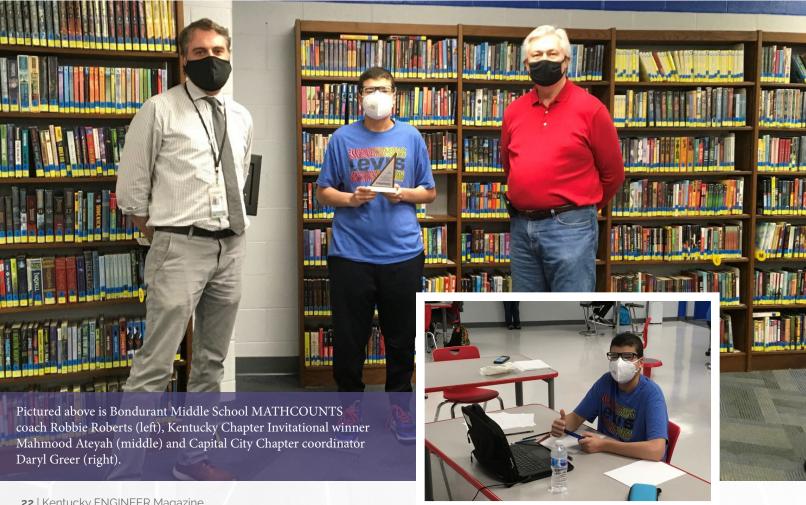
The top four finishers receive a four-year (\$6,000/ year) scholarship to the University of Kentucky College of Engineering or a full tuition scholarship to the University of Louisville. Those ranking 5th through 10th place receive a four-year (\$1,500/year) scholarship to the University of Louisville.

Celebrating its 38th year, MATHCOUNTS was founded in 1983 by the National Society of Professional Engineers, CNA Insurance Company and the National Council of Teachers of Mathematics.

MATHCOUNTS represents the Kentucky Society of Professional Engineers' (NSPE-KY) ongoing commitment to encourage 6th, 7th and 8th grade students to gain leadership skills, problem-solving techniques and a general understanding for solving real world situations while using their love for math. "This competition stretches our students in way that are not typical of a normal classroom experience," said Scott Pile, Calloway County Middle School teacher and MATHCOUNTS coach. "In addition, it gives these students an outlet to showcase their skills and the confidence to move forward into challenging activities in school and future careers."

Engineers hope to impress such skills to students as essential to their future academic and professional careers.

The program is operated by NSPE-KY through its non-profit Kentucky Engineering Foundation, Inc. and administered by volunteers from the engineering community across Kentucky. The Kentucky MATHCOUNTS program would not be possible without its supporters and sponsors.





THANK MATHCOUNTS® sponsors for making Kentucky's sponsors for making Kentucky's Chapter possible!

























