FALL 2024

The Bent

Of Tau Beta Pi

THE ENGINEERING HONOR SOCIETY

What I Wish I had Known

Meet the 2024 Awardees and Scholars

The Bent
Of
Tau Beta Pi
The Engineering Honor Society

Tau Beta Pi was founded at Lehigh University, South Bethlehem, PA, June 15, 1885, by Edward H. Williams Jr., Sc.D., A.B., A.C., E.M., LL.D. (1849-1933). Key and name registered in U.S. Patent and Trademark Office.

Member, *American Society for Engineering Education (ASEE)*; co-founder, *Association of College Honor Societies (ACHS)*; and Affiliate, *American Association for the Advancement of Science (AAAS).*

On the COVER: Join us as we celebrate the many faces of Tau Beta Pi, recognizing our members and their accomplishments in this issue. See below for their names.

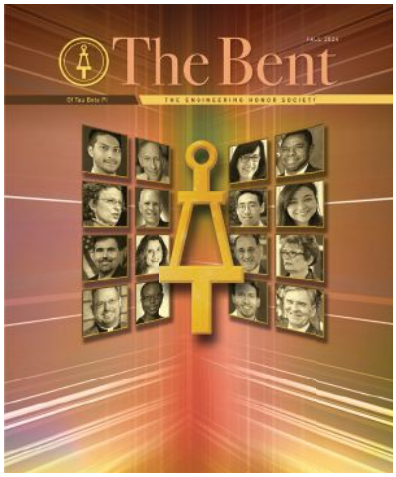
Artist: Dali Polivka

Row 1, *left to right*: Raafay Uqaily, Robert Langer, Martha Pollack, Adedeji Badiru

Row 2, *left to right*: Jill Tietjen, Philip Garrant, MinJae Kim, Christine Rice

Row 3, *left to right*: Ed Gorzkowski, Ece Erdogmus, Hash Hashemian, Rebecca Davis

Row 4, *left to right*: Rich Andre, Angelina Anani, Curtis Northcutt, William Goodin



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***The Bent* of Tau Beta Pi®** (ISSN 0005-884X) is published quarterly by The Tau Beta Pi Association, Inc., Room 508, Dougherty Engineering, The University of Tennessee, Knoxville, TN 37996-2215. Life subscriptions are: $95-Print, $45-Digital, and $10-Annual. Printed in U.S.A. Periodicals postage paid at Knoxville, TN, and at additional mailing offices.

SUBSCRIBERS AND POSTMASTER: **Send address change, request for online subscription**, and other correspondence to tbp@tbp.org or to *The Bent* of Tau Beta Pi, P.O. Box 2697, Knoxville, TN 37901-2697.

Volume 115, Number 4 | Circulation: 86,559 | Initiated Members: 640,293

See back inside cover for listing of Tau Beta Pi Chapters.

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The Bent

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COUNCIL'S CORNER

MingDe Lin, Ph.D., *NY Γ '01*, ΤΒΠ Executive Councillor

CAN EVERYTHING BE ENGINEERED?

I hope everyone had a good summer. My term as an Executive Councillor is ending this year. Along with a few others, I served a four-year term, one year longer than typical, to provide more stability for the Association during the chaotic early years of the pandemic. My tenure was framed by this global pandemic that affected all areas of life and activities. Specific to Tau Beta Pi, we pivoted in 2020 to a virtual "Unvention" and the 2021 Convention was canceled (the only other time Convention was canceled in our 139-year history was during World War II).

As a result, we grew our capabilities and developed systems to become more flexible and offered more virtual/digital services and resources, such as virtual initiations and a revamped website. The pandemic also increased awareness of ongoing societal issues like diversity, equity, and inclusion. For example, there are only 4 ΤΒΠ collegiate chapters out of 15 ABET-accredited engineering schools at Historically Black Colleges and Universities (HBCUs). Accordingly, efforts are underway to proactively reach out to HBCUs and Hispanic-Serving Institutions (HSIs) to establish collegiate chapters. At those HBCU and HSI chapters, a plan is being implemented to increase alumni membership nominations for Eminent Engineers. In addition, we plan to partner with the National Society of Black Engineers (NSBE) and the Society of Hispanic Professional Engineers (SHPE) to identify successful engineers who could be initiated as Eminent Engineers. This is one way we demonstrate exemplary character as Tau Bates – proactively reaching out and taking the initiative to uplift.

One personal silver lining during this time was that I got married in June 2020 and had three children in three years.

Our first child was due in the fall of 2020. It was an odd time, as we were still in the throes of the pandemic. With the information scientists and policymakers had at the time, national and local laws and guidelines were set to help reduce the transmission of the virus. Some thought it was a good, data-driven, methodical solution, while others thought it was draconian. It became a dividing line.

Due to social distancing, I could not be with my wife for all the ultrasounds. Although video calls helped to bring me somewhat present while I sat in the car at the clinic parking lot, hearing my son's heartbeat for the first time, even over FaceTime, was moving. I felt joy infused with longing to be there in person. After our son was born, my elderly parents, who live across the street, were concerned about the possibility of us bringing pathologies from the hospital back home, so they only popped in for a quick 15-minute visit while fully masked, face-shielded, and gowned. It was overdone, even by CDC standards. Still, the fear of being infected was palpable, and no epidemiological data, protracted social isolation, or the best of face masks could convince them otherwise. It was not until mid-summer 2021, months after we got a first breather (pun intended) from the pandemic, that my parents felt comfortable holding their grandson and interacting with us in person.

As our country emerged from numerous spikes and rebounds during the pandemic, infection became our "new normal." Also, we found out that we were expecting again in 2022. This time, I got to be in the clinic room with my wife for all the ultrasounds. We had wished and prayed for twins with our first pregnancy, and despite not having twins on either side of the family, we were confident that twins would arrive. Most sources cite a 2-3% statistical chance of twins. We matter-of-factly told the sonographer on our first visit that we were ready to see the twins. She laughed and commented that everyone says that. Then, the image came up on the screen. I shouted, "Twins!" my wife cried joyfully, and the sonographer's jaw dropped.

A few hours after our twins were born in the spring of 2023, the older twin was found to have atrial (patent foramen ovale) and ventricular septal defects. This was unexpected. The section chief of pediatric cardiology, who is also director of the congenital cardiac catheterization lab, told us that the size and location of the holes in the heart would not heal and surgical intervention would be required. We obtained a second opinion from a children's hospital, and they also agreed with the treatment course. My line of work brought things even closer, as I used to work for a company that manufactures the cardiac ultrasound machines used to image my daughter's heart, and the company I currently work for makes the software the pediatric cardiologists use to measure the size of the holes in my daughter's heart.

The data is real, and the independent recommendations by the pediatric cardiologists, based on their training, clinical standard of care, and experience, were aligned. These are the measurements, the expert recommendations, the facts; this is the medical and scientific evidence. As trustworthy and concrete as this evidence is, it was powerless to address the emotional hole in the heart of my wife and me for our daughter's well-being.

Since finding out about the holes in her heart, my wife and I, along with several of our friends from church, have been praying for peace in our emotional hearts and healing in our daughter's physical heart. There was no change in the size of the holes in the heart at the two-week, six-week, three-month, and six-month visits. A Goliath of fear and helplessness was starting to grow in me, but we continued to pray and hang on. At the 10-month visit, we were amazed and overwhelmed to learn that the hole in the top of the heart had largely closed (**Figure 1**) and the one in the bottom of the heart had diminished impact (**Figure 2**), the heart was growing in size, and the pressure across the heart was normalizing.

We asked the pediatric cardiologist how this could happen, especially when he and other experts were so confident that the holes would not close and surgical intervention would be needed. He responded that he didn't know why medically. Our prayers were answered. What relief!

As I reflect upon my Tau Beta Pi tenure, I observe that while many things can be measured, characterized, and projected, facts affect one's feelings—at times driving fear and helplessness and polarizing our views. Data and its interpretation can have powerful implications. Facts lovingly presented with care, patience, kindness, consideration, and gentleness can help dispel false narratives, loosen tension, bind wounds, and provide healing and hope. While there are known techniques and methods "engineered" to build confidence in presenting a case, lead someone through logical discourse, and give and receive constructive feedback – especially from a different view, the posture of one's heart is at the root.

Does it spring with life, or are there ulterior motives? That cannot be engineered but rather shaped, tempered, and honed to build into exemplary character. As we strive to excel and lead in our fields (outstanding scholarship), we help to inform our communities of the next steps forward and have the leadership opportunity to build unity and form respectful understanding.

MINGDE LIN is director, clinical research North America, at Visage Imaging, Inc. He is also an assistant professor adjunct at Yale University School of Medicine and serves as a CT Alpha Chapter Advisor and past director of the Central Connecticut Alumni Chapter. Ming was elected to the ΤΒΠ Executive Council in 2021. His B.S. in biomedical engineering is from Rensselaer Polytechnic Institute and earned his Ph.D. from Duke University.

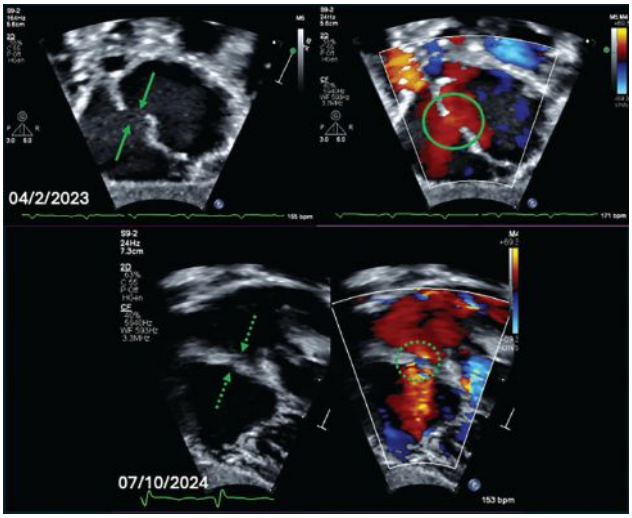


Figure 1: The foramen ovale that typically closes soon after birth was patent until sometime after the 6-month visit. The top row shows a large hole (see the gap between the arrows) and blood flow (see the circle on the color Doppler) between the right and left atriums on my daughter's three-day echocardiogram. The same atrial septal defect is largely closed (see dotted arrows) with substantially less blood flow (see dotted circle) as imaged on the 15-month visit.

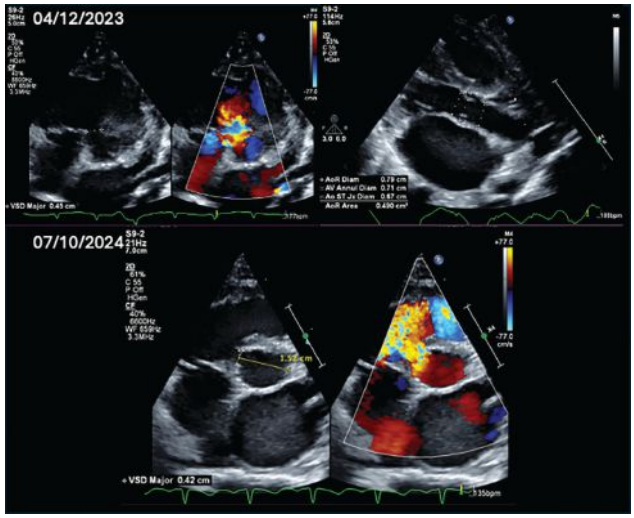


Figure 2: While the ventricular septal defect (VSD) reduced in size from 4.5 mm measured on the two-week echocardiogram to 4.2 mm on the 15-month visit, the heart grew. Specifically, the aortic annulus diameter increased from 7.1 to 15.2 mm, so the ratio between the VSD and the annulus decreased – downgrading the VSD towards a small defect. Furthermore, my daughter has remained asymptomatic. Reference: Dakkak W, Alahmadi MH, Oliver TI. Ventricular Septal Defect. [Updated 2024 Apr 14]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan. Available from: *https://www.ncbi.nlm.nih.gov/books/NBK470330/#*

WHO'S WHO IN TAU BETA PI

Recognizing Tau Bate accomplishments

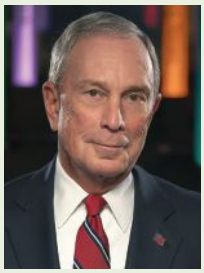
J. Matthew Barnett

Arizona Beta '90

was named a class of 2024 Fellow of the Health Physics Society (HPS). This recognition is limited to no more than one-half of 1% of HPS's full members each year. He works at the Pacific Northwest Laboratory Operational Systems Directorate's Environmental Protection and Regulatory Programs Division as an environmental radiation task lead and served as AZ Beta Chapter president while earning his B.S.

Michael R. Bloomberg

Maryland Alpha '64



received a Presidential Medal of Freedom (the nation's highest civilian honor) in May at the White House and was cited as "an entrepreneur, philanthropist, and three-term mayor." Michael, who has revolutionized the financial information industry and transformed New York City's education, environment, public health, and the arts has an electrical engineering degree from the Johns Hopkins University.

Burak Eksioglu Ph.D.

Florida Alpha '02

was awarded the title of Fellow by the Institute of Industrial and Systems Engineers, the highest classification of membership that recognizes outstanding leaders and contributions. He is a professor of industrial engineering and COE Director of the online master's program at the Univ. of Arkansas. His research focuses on the area of optimization with applications in transportation, supply chain management, and healthcare.

Azim Eskandarian D.Sc.

District of Columbia Gamma '82

was named a Fellow of the Institute of Electrical and Electronics Engineers (IEEE) for "contributions to the communication and control of intelligent autonomous vehicles." He is Dean of Virginia Commonwealth University's College of Engineering and was nominated by the Intelligent Transportation Systems Society, which focuses on advancing innovative technologies in the field of intelligent transportation systems.

Ed P. Gorzkowski III Ph.D.

Pennsylvania Alpha '99

was elevated as a member to Fellow status of the American Ceramic Society and will be recognized in October at the annual conference. He works as Branch Head of the Multifunctional Materials Branch at the U.S. Naval Research Lab in Washington, D.C., currently serves as chair of the Electronics Division of the American Ceramics Society, and is a past ΤΒΠ Association Official and PA Alpha Chapter Advisor.

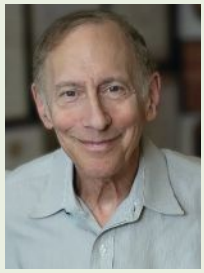
Hash M. Hashemian Ph.D.

Tennessee Alpha '80

was elected vice president and president elect of the American Nuclear Society (ANS). He began serving as vice president this summer and will assume the position of ANS president in June 2025. Hash is currently president and CEO of Analysis and Measurement Services Corp., is an internationally recognized expert in peaceful applications of nuclear energy, and holds three doctorates in engineering.

Robert S. Langer Jr. Sc.D.

New York Delta '70



received the 2024 Kavli Prize in Neuroscience from the Norwegian Academy of Science and Letters. He was one of three laureates chosen in this category for being a pioneer "whose breakthroughs have combined nanostructured synthetic materials with biologically active molecules." Robert is a chemical engineer with expertise in biotech and biomedical engineering, has received 220 major awards, and is an MIT professor.

Keith F. McDonald Ph.D.

Pennsylvania Alpha '95

was named a 2024 Fellow of the Institute of Navigation (ION) "for contributions to navigation warfare testing and positioning, navigation, and timing (PNT) situational awareness; and for sustained thought leadership, and management impact in military PNT. A Technical Fellow and PNT portfolio director at The MITRE Corp., he was previously named a top 50 "Leader to Watch" by *GPS World Magazine*.

Mark E. Schafer Ph.D.

Washington Alpha '86

was named a Fellow of the Ultrasonic Industry Association and recognized for significantly expanding the industrial and healthcare uses of ultrasound as evidenced by his 40 patents in related areas. Mark is a research professor at Drexel University, where he received a Ph.D., has founded three ultrasound companies, and is past president of the IEEE Ultrasonics, Ferroelectrics, and Frequency Control Society.

YOUR LETTERS

Send letters to tbp.media@tbp.org.
Text may be edited for length and clarity; not all letters can be published.

Bentspedition

After receiving my summer issue, I read with particular interest the "Bentspedition" article. A picture of the Bent monument on the University of Missouri-Columbia campus was included as Figure 1. The author, and most likely the current MO Alpha Chapter president, Audrey P. Horner, probably do not know the back story of why the Bent monument pictured has that unsightly steel collar at its base. In 1964, fellow Tau Bate, **Carl L. Ludwig,** *MO Α '64*, and I were commissioned to erect a Bent monument on campus. After gaining approval from the university and the engineering department, we acquired The Bent monument, had a brass plaque made, and had the concrete base constructed in front of the main, old engineering building on the quadrangle next to the walkway across from the iconic columns. It was all finished just before "Aggie Week." There had always been a friendly rivalry between the agriculture students, the Aggies, and the engineering students on campus. To our dismay, the dastardly Aggies snuck over one night during their Aggie Week, right after we had erected the monument, and sawed it off with a hack saw! We should have repaired it with a brass collar, but for cost and time considerations, we used a steel collar. See below for a 1964 picture of the newly erected Bent monument just after it was unveiled with me standing proudly next to it.

Robert M. Sandfort, Ph.D., *MO Α '64*

Fighting a Rising Tide

I read the Miami Rising Tide article. I didn't notice any mention of subsidence. Decades ago houses on the north side of Trinity Bay in Texas sank into the bay. Over pumping of groundwater lowered the water table, dewatering the clay, which then shrank. In some places the land surface went down several feet. The Houston (TX) area solved the problem by building a number of reservoirs to provide fresh water for homes and businesses.

The Sheldon Lake reservoir (TX) is also a good habitat for alligators. I don't recommend going on it in a very small boat driven by your 300 pound brother-in-law.

Otto C. Wilke, DDS, Ph.D., *TX Δ '64*

I was impressed by Alan S. Brown's article in the Summer 2024 issue. I have been saying for the past 20 years that we need to accept the fact that sea levels are going to rise and take measures to protect our people, their homes, and their work places. The article identified people who are currently working on the problem and described some of the more subtle issues that I hadn't considered, such as underground seepage of floodwaters through limestone.

John D. Oetting, Ph.D., *PA Δ '69*

Engineering the Skeleton

The Spring issue article on replacement hips was of interest to me because I have been there and done that.

Around 1970, my left hip began to send little messages of distress, which I was able to ignore. By 1974, I went to a doctor who advised me to start riding a bicycle. I usurped my son's Schwinn the next day and set off on a six-mile, one-way journey to work. It helped! Until my retirement, 15 years (and several thousand miles) later, I was still getting by.

By 2004, it had to be done. The secret to success is to select a very skilled surgeon. How he got all that "hardware" through a 1.5 " hole in my leg, I will never know. Rehabilitation was lengthy, but complete.

Now, years later, no problems; it was the right choice. If this is your problem, why delay? Again, look for a surgeon who has done many of these procedures, ask for recommendations, and even call them up.

Richard L. Bradley, P.E., *KS Α '59*

I thoroughly enjoyed the "Engineering the Skeleton" article and am glad to hear that it took Trudy's pain away.

I also like the level of detail that was included in the article for engineers interested in the materials and mechanisms as I've always been amazed by linkage mechanics and the people who design them.

I happen to know about painful walking. In 1971, I was checking my Volkswagen engine behind the car and a 1963 Impala slid on some black ice and was guided along the guard rail crushing my legs between the cars. I ended up with a left below the knee and a right above the knee amputation (AKA). Now for my AKA, I have this cool mechanical knee mechanism which I thought you might like to write about, maybe as part of an amazing mechanical contraptions article.

My mechanical knee enables me to walk down hill without the fear of the knee buckling. In addition, a slight change in the angle of the torque on the knee from pressure on the heel or the toe of the foot controls the locking of the knee.

As the knee begins to flex it moves forward slightly in the horizontal plane before bending. This allows me to detect the unexpected knee flex and pull it back to lock before the knee buckles and I fall.

So, kudos to the designer who thought this through, both for the locking and the buckle safety margin in initial flex.

I've been reading Trudy's articles for years and look forward to what's next.

Edward J. Kulis, *NY Γ '75*

Why Do We Call it a ... ?

Thank you for the very interesting and informational article on James Clerk Maxwell. We probably wouldn't have EVs and AI today if it weren't for his significant contributions.

The article also reminded me of the "fun" time I had in college trying to understand and memorize those famous Maxwell's equations.

Yi-Hsien Doo, P.E., *MI Z '81*

Letters continue on page 35.

What I Wish I had Known When I Graduated from College

BY JILL S. TIETJEN, P.E., *VIRGINA ALPHA '76*

Above: Final graduation exercises at the University of Virginia. Image Credit: Rob Seal, UVA School of Continuing & Professional Studies

INTRODUCTION

Do you really get wiser as you get older? Is it true that good judgment is the result of experience – and experience is the result of bad judgment (a paraphrase of Mark Twain)? What I do know is that I have learned a lot over the course of my life and career. Would I have listened if someone had tried to tell me years ago about the nuggets they had learned through hard experience? Maybe or maybe not. But I am hopeful that there is at least one kernel of knowledge in this article that will benefit you – the reader. I have provided what I wish I had known when I graduated from college and some lessons learned over the course of my life.

COMMUNICATION SKILLS

Communication skills are first on my list, and in this article, because in my opinion they are the most critical. And, contrary to what many of us think, there are actually three important communication skills: writing, speaking, and the key communication skill — LISTENING.

In caveman days (that is, when I was going to college), engineers didn't think they needed to learn how to communicate. They were wrong. Even if you work in a highly technical job, you will need to be able to sell your ideas – to your boss, to your team, maybe to higher level management. How will you do this? — through some form of communication that might include presentations, reports, memos, emails, letters, proposals, or business plans.

The wise individual will then take every opportunity presented – and make more as necessary – to improve their writing, speaking, and listening skills. Professional societies are a great place to start; you can work on their newsletter, write technical articles, or develop all three communication skills through working on a committee. There might even be speaking opportunities through the professional society – either in the schools or through presentations of technical topics.

If you want to improve your speaking skills, find a Toastmasters to join. Take advantage of any class or workshop offered by or through your place of employment or at a local university or community college.

MOTIVATION

In real estate, the three most important words are location, location, location. In the workforce, the three most important words are motivation, motivation, motivation. What do employers look for in their hiring process – basic skills . . . and motivation. For a book on leadership that I have been writing in 2024, the 28 CEOs interviewed all said the same thing – working hard and producing excellent results is not optional. This is a basic requirement for being promoted and moving forward in your career.

Look at your personal level of motivation. What are you doing besides whatever your job is (whether that is being an undergraduate or graduate student or being out in the workforce)?

Do you act on your passions – play a musical instrument, volunteer at the humane society or at Ronald McDonald House, hold newborns at the neonatal intensive care unit, coach a soccer team, serve as a Scout troop leader? If not, why not? What could you learn and how might that benefit you in your life and carer? I found that I have gotten more out than what I put in for every "extracurricular" activity in which I've been involved.

TAKE ADVANTAGE OF OPPORTUNITIES

I love to quote Thomas Edison on this one – "Opportunity is missed by most people because it is dressed in overalls and looks like work." Yet, taking advantage of opportunity has been a key attribute of my life and career. My ebook in the Institute of Electrical and Electronics Engineers' Women in Engineering series is titled "Recognizing and Taking Advantage of Opportunities." A friend of mine said the title really should have been "Seize Opportunities." Keep your eyes and ears – and heart – open. You have to first recognize an opportunity *before* you can capitalize on it.

If the organization that employs you provides a tuition reimbursement program or an in-house series of classes through their "university" – take advantage of those opportunities. While working for Duke Power, I was trained as a member of the Speaker's Bureau to make presentations to community groups. That training has been invaluable in almost every area of my life, including the many years spent as an expert witness and the speaking associated with marketing my books. I earned my MBA at night while employed at Duke Power, utilizing their tuition reimbursement program. Every job and every board seat I have had after leaving Duke Power required that MBA and the skills I learned while earning the degree have been invaluable.

NETWORK

I cannot overemphasize how important a skill networking is. Every job I've had for the last thirty years, almost every speaking opportunity, and basically every book I have written occurred because of networking.

The three steps of networking are 1) connect, 2) don't lose touch, and 3) give and get.

***Connect*:** Meet all of the people you can in your company, your industry, your neighborhood, professional organizations, through the sports you play, and your religious affiliation. Build RELATIONSHIPS with these people. You never know when someone you have met at a conference or through one of your activities outside of work may lead you to a job prospect or other type of opportunity. Participate in the golf league or the tennis ladder. Make presentations at conferences or serve as a member of a panel discussion. Doing so gives you more visibility than sitting in the audience; therefore meeting more people. They will even seek you out.

***Don't lose touch*:** The networking I am talking about here is the kind that results through relationships. Thus, it is incumbent on you to not lose touch. I am famous for sending newspaper articles (or links to newspaper articles) within my circle. I send birthday cards. I send notes (and never, ever, forget to send a thank you note when it is appropriate). Text someone when you find something you think they would be interested in. Maintain the relationship.

***Give and get*:** Remember that networking is a two-way street. Yes, you might be interested in getting a job or a referral but you must also give in order for there to be a relationship. Another word for getting is receiving and many of us are particularly bad at receiving help from other people. Remember that no one can give to you if you are not able or willing to receive. Receiving might be a good skill for you to practice.

SENSE OF HUMOR

I was on a panel years ago with two other technical women and we were chronicling for a non-technical audience many of the issues that we faced in our work and lives. One of the audience members came up to us afterwards and said what marvelous senses of humor we had. I don't quite know how anyone survives without one.

One of my lessons learned in life is that everyone will face adversity, **absolutely everyone**. Attitude is important. One of the key ways to face that adversity and to adjust your attitude is to use your sense of humor; if you don't have one, you need to develop one. Trust me, it will make your life easier. Getting angry and upset doesn't make the situation any better. But the effort to find something humorous in your situation will help it pass more quickly and will make you feel better as well.

"ONE OF MY LESSONS LEARNED IN LIFE IS THAT EVERYONE WILL FACE ADVERSITY, ABSOLUTELY EVERYONE. ATTITUDE IS IMPORTANT. ONE OF THE KEY WAYS TO FACE THAT ADVERSITY AND TO ADJUST YOUR ATTITUDE IS TO USE YOUR SENSE OF HUMOR – AND IF YOU DON'T HAVE ONE, YOU NEED TO DEVELOP ONE."

LOOK OUT FOR #1

You must look out for your own interests – everyone else is looking after themselves. Know that although your job performance may be excellent, economic forces may still mean that you might get laid off. Be thinking about what is just around the corner. Shortly after I moved to Denver in 1981, the energy boom started to recede and layoffs became common in the industry. I found another job shortly before I would have been laid off. Be aware at all times of other opportunities available in the market that you could be considered for. Don't get complacent – no one is irreplaceable.

CORPORATE POLITICS

Many engineers would prefer not to get anywhere near corporate politics. But, alas, that is not life. Politics are a part of the work environment – actually politics play a huge role in many families as well – and I'm not just talking about the major political parties. As long as there are three people in any situation, two can always gang up against the other one, so there are always politics.

Teamwork is exceedingly important. Almost all of your projects will be done in concert with team members. And in any team, politics – which is understanding and working with people – really will be part of the scene. It is very important for you to understand how to get things done. If playing the corporate game is required, and you don't play, you will not get the rewards that go with playing the game.

GRASS IS GREENER

Why is it that whenever we get in a line at the grocery store, the airport, or wherever, the other line always seems to move faster? Someone else's job, someone else's organization, someone else's field of employment may often look better than your current situation. Sometimes, the grass IS greener on the other side of the fence; sometimes it is a lot browner.

No matter what job you're in, there will probably always be something, little or big, that will not sit right with you. One of my Society of Women Engineers' colleagues calls these things "warts." They include the people you work with, the work that you are actually asked to do, the projects that you work on, and your boss's management style.

Rest assured that in almost every single instance, there will be something that you just don't care for in your current employment situation. While it's the normal human condition to complain, you do need to look at the warts and decide how significant they are. Is it something that you can live with or do these warts mean that it is time for you to look on the other side of the fence?

SPEAK UP ABOUT YOUR ABILITIES

Have you designed a product that became a best seller? Was your cost-saving idea implemented and shown to be effective? Have you recently published a paper in your industry's premiere trade journal? Make sure that your boss knows about it. Write an email or have a conversation with your boss (those old communication skills again). If you don't tell your boss, chances are no one else will either and then how will your boss know?

Do you think it is time for you to get a promotion and nothing (to your knowledge) has been done about it? Speak to your boss. Find out if you have been considered. If not, find out what the requirements for the next level are. If you are not currently meeting those requirements, find out what you can do specifically to attain that level of performance which would indicate that you are ready for that promotion. Don't overdo it though. Make sure that your "tooting your own horn" has a reasonable basis. Save this technique for special occasions.

CHOICE NOT CHANCE

My friend, Dr. Shirley Ann Jackson, the former President of Rensselaer Polytechnic Institute, the first African American woman to receive a Ph.D. from MIT, and an inductee into the National Women's Hall of Fame, said her life philosophy was to ensure that choice not chance determined her destiny. She did not allow her skin color or her gender to impede her life and career progress. She made choices to ensure that chances did not limit her.

Physical characteristics can't and shouldn't determine your life path. They occurred by chance: you inherited them from your parents (and you didn't get to choose your parents!). Attitude. Work ethic. Motivation. These characteristics are your choice. By making choices, and not allowing chance to rule your life, you will determine your own destiny.

CHANGE IS THE ONLY CONSTANT

Like most people, I have somewhat of an aversion to change. Yet change is the only constant in our lives. When you think about change remember this – the sun rises and sets at a different time EVERY DAY. As I like to say, as soon as you think you know all of the answers, all of the questions change.

Jill delivers her keynote address at the 2019 Tau Beta Pi Convention in Denver, Colorado.

"IT IS VERY IMPORTANT TO REMEMBER THAT NOT MAKING A DECISION IS ACTUALLY MAKING THE DECISION TO LET EVENTS AND OTHER PEOPLE CONTROL YOUR LIFE AND DESTINY."

DETERMINE YOUR PATH

Many years ago, one of my work colleagues and I were having a discussion about our futures and where we were headed. He told me about the classic interchange between Alice and the Cheshire Cat from *Alice's Adventures in Wonderland* by Lewis Carroll:

Alice: I was just wondering if you could help me find my way.

Cheshire Cat: Well that depends on where you want to get to.

Alice: Oh, it really doesn't matter, as long as...

Cheshire Cat: Then it really doesn't matter which way you go.

Alice: ... so long as I get somewhere!

Cheshire Cat: Oh, you're sure to do that, if you only walk long enough.

The bottom line – if you don't know where you are headed then any path or any action or any direction will get you there. And, it is very important to remember that not making a decision is actually making the decision to let events and other people control your life and destiny.

TAKE RISKS

As we mature in our lives, many of us become risk averse. Yet, as a baby, you learned to walk – and it didn't happen the first time you tried. Maybe you were one of those lucky kids who didn't fall off your bike the first time you tried to ride it. I know the first time I snow skied, I fell so often I was covered with bruises from stem to stern – but yet a few years later I moved to Denver in order to be able to ski.

Why can't we think more like we did when we were younger as we face risks in our adult lives? It can be amazing what happens when you take those risks. What types of risks am I talking about? Oh, just things like getting married, having children, moving to a different location, taking a new job, taking a new direction in your life. There are many possibilities.

If anyone had told me in 1994, when I got divorced the first time and actually started thinking about the direction I wanted my life to take, where I would be today, I would have rolled on the floor laughing. But taking those risks has been very worthwhile – moving to Denver, changing jobs, remarrying after my first husband moved out on our 18th wedding anniversary (you can't make this stuff up), changing career paths, and getting divorced a second time. By the way, I didn't decide not to have children – that was chance – I was unable to get pregnant. But I say that I give birth to books. Every decision had elements of risks but I couldn't be where I am today without taking those risks.

STRIKE A BALANCE

Remember as you go through your life, that you need to strike a balance between your professional and personal lives. That balance has to be your balance – the one that is right for you – not the one that is right for anyone else. You get to choose. And, the choosing – taking that responsibility – is the difficult part.

CONTINUE TO LEARN

You must be a lifelong learner. The pace of change is so rapid, you will otherwise be left behind. Many of the readers of this article will not know what an IBM punch card is but those of us cavemen used those punch cards to program computers in college and early in our careers. IBM punch cards sent astronauts into orbit and to the moon! The smartphones of today with their apps were not even a dream at the time. Technology has changed so much over the course of my career. Someday, in the not-too-distant future, 2024 technology will look ancient!

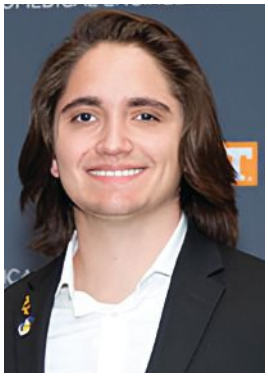
Which nugget or kernel of knowledge I shared in this article spoke to you? I am hoping there was one. There is so much to learn, so many opportunities to take advantage of, so much networking to do. Keep your eyes, ears – and heart – open. Hopefully, when you look back on your life and career, you will realize that change and adversity happened but you persevered, determined your life path, and emerged with your sense of humor intact. I wish you well.

JILL S. TIETJEN, P.E., is an author (16 books and counting), international speaker, and electrical engineer. She spent her career in the electric utility industry and sits on the board of directors of Georgia Transmission Corp. of Tucker, GA. Tietjen has received many awards including the 2004 TBΠ Distinguished Alumni Award, has been inducted into the Colorado Women's Hall of Fame and the Colorado Authors' Hall of Fame, and elected to the National Academy of Construction. Tietjen received her B.S. degree from the University of Virginia and her MBA from the University of North Carolina at Charlotte. She is a licensed professional engineer in Colorado.

Association Awards

★ Laureates

Four Laureates have been selected in the 40th year of Tau Beta Pi's annual program **to recognize gifted engineering students who have excelled in areas beyond their technical majors. Award categories include arts, athletics, diverse achievements, and service. Recipients will receive a $2,500 cash award and a commemorative plaque.** This year's Laureates bring the total number of Tau Bates to be cited to 121 since the program began in 1982.



DERRICK BAILEY IV

TENNESSEE ALPHA '24

Derrick has been selected a **2024 TBΠ Laureate** for achievements in service. He's a Univ. of Tennessee (UTK) graduate with a B.S. in aerospace eng'g, mechanical eng'g minor & now works as an associate aerospace engineer at Northrop Grumman.

While at UTK, Derrick demonstrated remarkable initiative and commitment to community-building and involvement. Despite the challenges presented by COVID, he immersed himself in campus organizations beginning as a freshman.

For example, he used his engineering and leadership skills to design and hand-carve a Jazzmaster electric guitar and captained the UTK Baja Society of Automotive Engineers (SAE) team, designing and manufacturing a custom 4x4 off-road vehicle for the Baja SAE competition.

Derrick served as the 2022-23 TN Alpha Chapter president and under his guidance, the chapter grew significantly and notably increased long-term membership retention, with 100+ members remaining actively involved this year. Moreover, he spearheaded a revival of the K-12 MindSET program organizing a rocket launch activity at a local elementary school. Finally, Derrick played a pivotal role in hosting the 116th annual TBΠ Convention in Knoxville.

Matthew M. Mench, Ph.D., *TN A '00*, Dean, UTK Tickle College of Engineering, had this to say about Derrick, "His achievements are award-worthy because he's gone beyond common stewardship and excelled in raising the bar in all of these activities. He doesn't just participate, Derrick gets things done that would not have occurred without him. That's my definition of true impact."

In conclusion, the chapter's nomination described Derrick as "embodying the ideals of the Association through exemplary leadership, academic prowess, and a commitment to fostering inclusive and diverse communities," and expressed great pride in having him as a member.

AMANDA E. STONE

ARIZONA BETA '23

Amanda's achievements in the arts have led to being named a **2024 TBΠ Laureate**. She is a first-year mechanical engineering Ph.D. student at Purdue University with a B.S. in mechanical eng'g and minor in vocal performance from Arizona State University (ASU).

From a young age, Amanda has been dancing, singing, and playing the piano. Throughout her adolescence, she was a successful competitive dancer and in high school won several solo vocalist competitions as well.

While at ASU, Amanda took lessons from a professional opera singer, played piano in two live musicals, sang in 13+ languages, and was a member of four university and three off-campus choirs. She devoted time each week as a volunteer singer at churches across the country and at local retirement homes, in an effort to connect people to worship.

In addition, she sang the National Anthem at two (MLB and USL Soccer) professional sports games. Her final and most challenging musical project was the publishing of her first self-produced, original album titled *Finding*, available on all streaming platforms. The three-year project was part of her honors thesis, taking Amanda through the entire process of making an album: songwriting, orchestrating, rehearsing, recording, editing and mastering, publishing, and promoting. The album includes 10 original songs based on the journey of finding oneself during college.

Amanda's initiation into TBΠ was virtual due to COVID, which left few engagement opportunities. However, after attending a D13 Conference, she learned about the impact and importance of Tau Bates and subsequently returned to the AZ Beta Chapter to help run two in-person initiations.

Music has been an inseparable part of Amanda's life in which she takes joy from performing and sharing her talents. In the IN Alpha Chapter nomination, her commitment and passion to excelling in the arts, while pursuing rigorous academic ambitions, was praised.

★ Laureates

MUHAMMAD RAAFAY UQAILY

WEST VIRGINIA ALPHA '23

For his achievements in service, "Raafay" has been named a **2024 ΤΒΠ Laureate**. He's pursuing a master's degree in financial mathematics at the University of Chicago, after graduating with an engineering B.S. degree from West Virginia Univ. (WVU).

He relocated from Pakistan to Morgantown, WV, as a high school junior and has since been a dedicated leader serving academic organizations and his local community. Raafay's most impressive leadership role might be the three years spent as president of the WVU Biomedical Engineering Society. He was able to transform the chapter, increase membership, and spearhead the society's 3D printing initiative for prosthetic upper limbs, earning it certification with the global non-profit, e-NABLE.

In the area of research, Raafay served as editor of the *Mountaineer Undergraduate Research Review*, overseeing publication of two consecutive journal volumes. He also worked as a researcher at the WVU Heart & Vascular Institute, presenting first author findings at four conferences.

Raafay's dedication as a mentor is illustrated through his extensive involvement as a teaching assistant in the department of economics at UChicago and as a math & learning assistant and tutor for the WVU College of Business.

After his initiation in December 2021, Raafay served two terms as WV Alpha Chapter recording secretary, focused on organizing meetings and completing necessary paperwork. He then served a semester as WV Alpha social media chair, revitalizing the chapter's Instagram account.

His outreach contributions include working as a WVU College ambassador and as treasurer of The Rack Student Food Pantry, plus volunteering countless hours at American Red Cross blood drives and at the J.W. Ruby Memorial Hospital.

The nomination characterized Raafay as an expert communicator with an ability to cultivate change and a talented leader with great promise of professional achievement.

MATTHEW N. YEE

INDIANA DELTA '24

Matthew has been named a **2024 ΤΒΠ Laureate** for achievements in the arts. A recent dual degree graduate in civil engineering and music performance from Valparaiso University, he is now a professional Musician First Class with the U.S. Coast Guard.

Matthew is an accomplished euphonium player, having won local and national (solo) competitions, such as the Music International Grand Prix Competition. He also served the campus and regional community through performances with the Valpo Symphony Orchestra and Chamber Concert Band. Most notably, he won both of his first auditions for full-time positions with prestigious military bands.

After joining the Valpo chapter of the Sigma Phi Epsilon Fraternity, he assumed many roles, including executive secretary and external relations chair. In these roles, he led two winning applications for the Buchanan Cup, a biannual award given only to the highest performing SigEp chapters.

Matthew has repeatedly been recognized by Valpo for his breadth of accomplishments as a student speaker, panelist at president's circle donor events, and on the National Council Student Roundtables for the College of Engineering and College of Arts and Sciences.

The IN Delta Chapter shared that since joining, he has been their most active member, with two terms on the Executive Board, as treasurer and recording/corresponding secretary. After university funding was pulled from Valpo organizations, Matthew secured sufficient funds for the chapter to continue hosting important activities on campus.

Letters of recommendation for Matthew described him as humble, hard working, and talented, while also having the admiration and respect of his peers. It was noted that by sharing his musical talents, he has brought the Valpo community together and helped create relationships that strengthen the university. Whether in music or engineering, his future is bright.

Association Awards

★ McDonald Mentor

Established in 2005, the Tau Beta Pi-McDonald Mentor Award celebrates **excellence in mentoring and advising among educators and engineers who have consistently supported the personal and professional development of their students and colleagues.** It recognizes those who have shown true concern for individuals, supported an environment for developing talents, and earned respect and recognition in their field and the greater community.

STEVE E. WATKINS Ph.D.

MISSOURI BETA '83
NOMINATED BY MISSOURI BETA

Steve Watkins **has been named the 2024 TBΠ-McDonald Mentor.** He is a professor and director of the Applied Optics Laboratory at Missouri S&T.

Dr. Watkins will receive $1,000, a bronze engraved medallion, and a replica lapel pin. A $1,000 grant will be presented to the Missouri Beta Chapter, for nominating him.

Established by the Association and Marion and Capers W. McDonald, NC G '74, *the McDonald Mentor Award recognizes engineering educators or professionals in industry, government, or service organizations.*

He earned B.S. and M.S. degrees in electrical engineering from the Univ. of Missouri-Rolla (now Missouri S&T) and a Ph.D., also in electrical eng'g, from the University of Texas at Austin.

Dr. Watkins has been a faculty member at Missouri S&T since 1989 with technical interests in smart structures, sensing systems, and engineering education. He was an interim ECE department chair for two years and associate chair of undergraduate studies for eleven years.

In addition, Dr. Watkins has served as a Distinguished Visiting Professor at the U.S. Air Force Academy, as an IEEE-USA Congressional Fellow in the office of California Congressman Dana Rohrabacher, as a visiting physicist at the Phillips Laboratory (USAF) — Kirtland Air Force Base, and as a visiting scholar at the Basic Research Laboratories of NTT in Japan.

In Dr. Watkins' nomination, he was lauded for "supporting S&T activities in the professional engineering community for Tau Bates, students, alumni, and faculty."

As an advocate for learning in engineering ethics, he helped develop the IEEE Student Ethics Competition program, in 2004, and has championed this competition through leadership positions and articles in ASEE publications.

Dr. Watkins assumed the role of Editor-in-Chief of *The Bridge* (IEEE-HKN) magazine for eight years. During that time, it converted to an online format and received eight APEX Awards of Excellence, including a 2023 Grand Award.

Another area of focus for Dr. Watkins is professional development, presenting at eleven college campuses, the 2018 TBΠ Convention, and the IEEE-USA Leadership Conference, to name a few.

Dr. Watkins became a MO Beta Chapter Advisor in 2014 and has been Chief Advisor since 2020. On the S&T campus, he also advises IEEE-HKN (for 32 years) and Toastmasters (for 28 years).

As a mentor, he solicits candidates for awards and provides references and endorsements for their nominations. Dr. Watkins mentors junior faculty and is effective in recruiting female students for graduate degrees.

A colleague stated that Dr. Watkins, "has a heart for teaching and mentoring students and works to create a positive environment for them to grow professionally." He supports his department's recruiting programs, most notably by coordinating a summer camp for middle school students in robotics. "In summary, Dr. Watkins is well aware that education extends far beyond the classroom and seeks opportunities to engage with students to foster their growth in many dimensions."

For his sustained contributions as an advisor and mentor, commitment to professional development, and in recognition of his advocacy for colleagues and students, **we honor Dr. Steve Watkins as the 2024 TBΠ–McDonald Mentor.**

★ Outstanding Advisor

The Tau Beta Pi Outstanding Advisor has been named since 1994 and **recognizes outstanding performance among the Chapter Advisors of the Association.** Selection is made by a committee of deans at engineering colleges and past award winners.

RAMAK ASGARI

CALIFORNIA ETA '99
NOMINATED BY CALIFORNIA ETA

Ramak Asgari, an Advisor to both the CA Eta and CA Upsilon Chapters, is **the 2024 TBΠ Outstanding Advisor.**

She will receive $1,000, a commemorative plaque, and a $1,000 grant will be presented to San Jose State University's College of Engineering discretionary fund.

The Outstanding Advisor Award recognizes chapter advisors, lauds excellence in engineering education, and in the ethical practice of engineering.

Ms. Asgari became a CA Eta Chapter Advisor in 2019 and a CA Upsilon Advisor in 2020. For years, she has demonstrated a sustained commitment to excellence and leadership with regards to the Association's mission.

She obtained a B.S. degree in mathematics from the University of Kentucky and an M.S. degree in industrial & systems engineering from San Jose State University (SJSU). Ms. Asgari is an artificial intelligence/machine learning engineer at Lockheed Martin and is also a Design of Experiments private instructor with ASQ Six Sigma Quality Black Belt and ASQ Quality Engineer certifications.

She joined TBΠ as a graduate student and was elected CA Eta Chapter president in an effort to rescue the chapter from dissolution. Ms. Asgari continues to host two annual industry events and actively participates in chapter projects.

Her resume review and tech talks, together with her role in Lockheed Martin's University Recruiting Program, have directly led to students securing internships and provided valuable insights to members.

With an approachable personality and genuine passion to serve, Ms. Asgari has been crucial to maintaining CA Eta's momentum and cohesion. She assists in officer transitions, provides help with chapter operations, and is willing to read parts during initiation ceremonies.

Her passion for service and volunteerism within the Association continues as an officer-at-large for the San Francisco Bay Area Alumni Chapter.

A letter of recommendation for this award noted that her care for SJSU's students goes beyond TBΠ through her involvement in the MESA Engineering Program, which supports first generation, low-income, and under-represented students in engineering.

Ms. Asgari also participates in other organizations within the SJSU College of Engineering and has extended invitations to CA Eta officers and members to join events, such as mock interviews and opportunities fostering collaborations.

For her involvement with the Society of Women Engineers, she was recognized with an Engaged Advocate Award, "honoring those with a background in engineering who contribute to the advancement or acceptance of women in engineering."

Sheryl Ehrman, Ph.D., Dean, SJSU College of Engineering, enthusiastically supported Ms. Asgari's nomination, saying, "I especially appreciate her support of students with disabilities. She is a great example to the students of how one's disability does not need to hold anyone back."

CA Eta concluded that Ms. Asgari has been indispensable to the recent success of the chapter, including receiving an R.H Nagel Most Improved Chapter honorable mention for the 2020-21 academic year.

For empowering engineering students through mentorship and volunteering, and displaying the qualities of an exemplary leader, **Ms. Ramak Asgari is the 2024 Tau Beta Pi Outstanding Advisor**.

Association Awards

★ Distinguished Alumni

Distinguished Alumni are **recognized for their demonstration of outstanding adherence to the ideals of Tau Beta Pi (integrity, breadth of interest, adaptability, and unselfish activity) and for fostering a spirit of liberal culture in society.** The 2024 awardee profiles follow and the press release is available at: *www.tbp.org/press-releases.cfm*

ADEDEJI B. BADIRU Ph.D., P.E.

TENNESSEE GAMMA '79

In recognition of *remarkable achievements within his technical field along with active engagement in community outreach,* Adedeji Badiru **has been named a 2024 ΤΒΠ Distinguished Alumnus.**

Dr. Badiru earned B.S. and M.S. degrees in industrial engineering from Tennessee Tech University, an M.S. in mathematics, and a Ph.D. in industrial engineering both from the University of Central Florida.

He is a Dean Emeritus of the Graduate School of Engineering and Management at the Air Force Institute of Technology (AFIT), having retired in January after ten years in this role. Previously, Dr. Badiru was a professor & head of systems engineering and management at AFIT, professor and dept. head at the University of Tennessee, and professor and Dean of University College at the University of Oklahoma.

The nomination from the Ohio Eta Chapter detailed his dedication and expertise with initiatives that promote the positive contributions of engineering to society. Dr. Badiru is an ABET program evaluator for colleges, serves on 5+ university advisory boards, and is an active editor to many journal publications. In honor of his Nigerian roots, he has served in multiple roles for the Egbe Omo of Yoruba of Greater Miami Valley and financially supported international student education through endowments and prizes.

A prolific author, he published three books in his "Physics of Soccer" series, a second edition of "The Handbook of Industrial & Systems Engineering" in 2014, and pioneered the "Industrial Engineering Genealogy" project, allowing engineers to track their academic family tree.

Dr. Badiru was also cited for his commitment to mentoring peers and students, leading to recognition such as the IEOM Society International's Frederick Winslow Taylor Award and fellowship in the Nigerian Academy of Engineering and the Institute of Industrial and Systems Engineers.

These lifetime contributions "have left a lasting impression on the engineering field, fostering a liberal culture that prioritizes positive societal contributions and encourages the next generation."

WILLIAM R. GOODIN Ph.D.

CALIFORNIA EPSILON '75

In recognition of *his breadth of contributions to campus organizations and the engineering community through leadership and mentorship,* William Goodin **has been named a 2024 ΤΒΠ Distinguished Alumnus**.

Dr. Goodin obtained a B.A. in mathematics from San Jose State University and M.S., Ph.D., and MEngr degrees from the University of California, Los Angeles (UCLA). He worked in industry as a senior staff engineer for Hughes Aircraft Co. (now part of Raytheon) in software training in the Radar Design Automation Center.

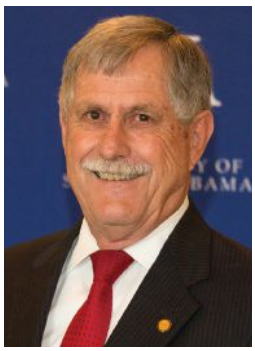
He then served for 28 years at UCLA Extension as the director of the Short Course program, where he developed, marketed, and oversaw hundreds of non-credit short courses in computer and information systems, engineering, and technical management. Despite retiring in 2014, Dr. Goodin continues to connect alumni and corporate partners with the UCLA School of Engineering and Applied Science and engineering students through his work as a faculty advisor.

Dr. Goodin re-engaged with the CA Epsilon Chapter in 2002 as president of the UCLA Engineering Alumni Association to bring alumni and students together. He became a CA Epsilon Chapter Advisor in 2007 and has been critical to their success. His nomination stated, "For the past several years, CA Epsilon has received Project and Chapter Excellence Awards, which is a testament to Dr. Goodin's outstanding advising and drive to see the chapter succeed."

He is a counselor and alumni advisor to a multitude of UCLA engineering organizations. His mentorship is unparalleled and it's clear how much he cares not only for the success of the organizations he oversees, but its members as well. It was noted that "students turn to Dr. Goodin for advice when planning their futures, applying for graduate school, working to improve public speaking and leadership skills, or learning how to navigate a healthy work-life balance."

The multitude of awards Dr. Goodin has received reinforces the impact of his character and leadership and include: recent election as a SWE Fellow, the 2011 ΤΒΠ McDonald Mentor Award, and the ASCE Region 9 Practitioner Advisor of the Year Award, twice.

John W. Steadman is the second recipient of the **Asad M. Madni Distinguished Alumnus Award**. Dr. Madni, *CA E '69*, made a gift in 2023 to permanently endow this award to annually recognize one Tau Bate with this distinction. He believes that a successful professional career includes philanthropy and considers it a privilege to give back and recognize those who echo the same value system.



JOHN W. STEADMAN Ph.D., P.E.

WYOMING ALPHA '64

In recognition of *his decades of service as a leader in engineering education, the practice of engineering, and in the local community, John Steadman* **has been named the 2024 Asad M. Madni Distinguished Alumnus.**

Dr. Steadman has three electrical engineering degrees: a B.S. and M.S. from the University of Wyoming and a Ph.D. from Colorado State University. Dean of Engineering Emeritus of the University of South Alabama (USA), he retired from the position in 2019. Dr. Steadman previously worked at the University of Wyoming (UW) for nearly 35 years as a professor, dept. head, and associate dean of engineering.

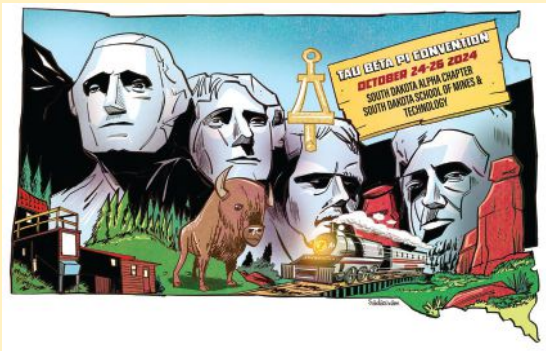
His impact on the engineering profession is demonstrated through leadership positions in engineering organizations, including serving as NCEES president and chair of the Examinations Committee & implementing important changes to test assessment and scoring. While president, he also represented IEEE-USA in NAFTA negotiations that resulted in rules and regulations for the practice of engineering in North America.

On a local level, Dr. Steadman spent 16 years on Wyoming's State Board of Registration for Professional Engineers and Land Surveyors, at the request of three different governors. He also currently serves on boards for several Mobile, AL, community organizations, such as the Gulf Coast Exploreum Science Center and Partners for Economic Progress.

In addition to volunteer work, Dr. Steadman and his wife, Sally J. Steadman, Ph.D., *WY A '69*, financially support students and faculty through endowments established at UW and USA.

Throughout his career, he has been recognized for outstanding teaching, research, and service. A recipient of the prestigious Ellbogen Award for Undergraduate Teaching at UW, he was elected to Fellow grade in both ASEE and NSPE, elected to the UW Engineering Hall of Fame, and recently recognized with the USA "Happy" Fulford Inspirational Achievement Award.

In summarizing his candidacy, Dr. Steadman was described as a "catalyst and facilitator with the vision to see the next generation in engineering — registration, education, and digital hearing aids." With use of collaboration skills to effect change and a leadership style that gains consensus from key stakeholders, Dr. Steadman makes things happen.



JOIN US IN RAPID CITY, SOUTH DAKOTA FOR THE 2024 CONVENTION

- **October 24-26 at The Monument**
- **Hosted by the South Dakota Alpha Chapter at South Dakota School of Mines & Technology**
- **Participate in Professional Development Sessions**
- **Lunch at Mt. Rushmore**
- **In-person Recruiting Fair**

More information is available at: www.tbp.org/convention.cfm or, contact tbp.convention@tbp.org, with any questions.

Executive Council CANDIDATES

The Executive Council is our board of directors consisting of nine members who are alumni and serve a three-year term. The Executive Council names its own officers: *Chair*, who is also President of the Association; *Vice Chair*, who is also Vice President; *Secretary, Treasurer*, and five *Councillors*.

In accord with the Constitution, three members of the Executive Council are elected to three-year terms by the Convention each year. The terms of President Ronald M. Hickling, Councillors MingDe Lin and Joan M. Sciacca expire on December 31, 2024. In response to the call for candidates, the following individuals were nominated.

NOMINEES FOR 2025-27:

DAVID J. COWAN JR., P.E., ENV SP

FLORIDA EPSILON '14

Nominated by the Florida Iota Chapter. David holds bachelor's and master's degrees in civil engineering, with a water resource focus, from Florida Atlantic University. He is a senior engineer in the West Palm Beach office of Chen Moore and Associates and has 15+ years of experience specializing in the renovation and design of water/wastewater pump facilities and water/wastewater conveyance and distribution systems.

In addition, David is a graduate from the Florida Engineering Leadership Institute and assumes executive roles for several professional organizations, including Florida Engineering Society Regional Vice President, member of the Urban Drainage Standards Committee, and chair of the Environmental and Water Resources Institute Sustainable Stormwater Infrastructure Committee. He is a published author and a contributing editor for *Engineering Florida*. This publication informs the engineering community of state regulatory changes, technological advances, and the positive contributions engineers make in the State of Florida.

David currently serves as a District 5 Director (since 2017) and FL Epsilon Chapter Advisor. Previously, he held the position of secretary for the Palm Beach/Broward Alumni Chapter and was a FL Epsilon Chapter president and vice president.

He is supported in all endeavors by his wife Beth, who runs her own interior design company, and their two daughters, Calissa and Alexandra, who are avid musicians and have expressed an interest in pursuing STEM careers.

RONALD M. HICKLING

CALIFORNIA EPSILON '80

Nominated by the California Epsilon Chapter. Ron has a B.S. in electrical engineering from the University of California, Los Angeles. He is a senior systems engineer for Creative Digital Systems Integration Simi Valley, involved in the development of digital beamforming antennas.

Ron has been ΤΒΠ's Permanent Convention Chair 28 times since the late 1980s and Parliamentarian to the Convention before that. He was a District 15 Director, which then included all of CA and NV, an Engineering Futures Facilitator (from its inception through 1999), and Director of Engineering Futures (1995-99). More recently, he was a California Epsilon Chapter Advisor (2016-19) and a member of the ΤΒΠ Executive Council as Councillor, Vice President (2023), and President (2024).

He began his career at Hughes Aircraft Company as a Hughes Masters Fellow. He then joined GaAs semiconductor startup GigaBit Logic, where he developed GaAs mixed signal chips. In 1992, he co-founded startup TechnoConcepts, Inc., a company engaged in the development of software defined radio chips and systems, serving first as president, then CTO, and member of the board of directors after raising venture capital.

Ron is a senior member of IEEE and a licensed radio amateur, who lives with his family in Newbury Park, CA, enjoys the Santa Monica Mountains, and plays music in his spare time.

SUE L.R. HOLL, Ph.D.

CALIFORNIA LAMBDA '76

Nominated by the California Upsilon Chapter. Sue earned a B.S. in electrical engineering, and B.S and M.S. degrees in materials science & engineering from the University of California, Davis, and a Ph.D. in materials science and engineering from the University of California, Berkeley.

As an undergraduate, Sue was active in professional societies including IEEE, ASM, SWE, and the ΤΒΠ CA Lambda Chapter as treasurer. Upon completing a Ph.D., she joined the faculty of the department of mechanical engineering at California State University, Sacramento (CSUS). During her career at CSUS, she taught graduate and undergraduate courses, pursued research in semiconductor device fabrication, became department chair, and actively advised student professional organizations.

Upon arriving at CSUS, Sue discovered there was no Tau Beta Pi chapter and immediately began to establish one. The CA Upsilon Chapter was installed in 1984, and she has been Chief Advisor ever since. Throughout her ΤΒΠ volunteer career, she's been active with alumni and collegiate chapters, at the district level, and supported the CA Upsilon and Lambda Chapters in hosting the 2008 Convention. Sue previously served on the Executive Council as Vice President and President, on the Fellowship Board, and was recently certified as an Engineering Futures Facilitator.

During her free time, Sue enjoys local activities with her daughter, **Christy,** *CA L '09*, son-in-law **Mike Bell,** *CA U '15*, her son, Danny, daughter-in-law, Ann, and granddaughter, Cici.

RUSS W. PIERCE

WASHINGTON ALPHA '70

Nominated by the Washington Alpha Chapter. Prior to retiring in 2006, Russ had a long and distinguished management career in the aerospace, telecommunications, and business management consulting industries.

In 1970, Russ was initiated into the WA A Chapter at the University of Washington, where he earned bachelor's and master's degrees in electrical engineering. He obtained an MBA with a concentration in technology management from the Florida Institute of Technology.

As he took on more leadership responsibilities in his career, Russ realized that he enjoyed solving people problems as much as he enjoyed solving technical problems and passing on his knowledge and skills to future leaders as a mentor and adjunct professor.

He has served ΤΒΠ for 33 years as an Engineering Futures Facilitator, 18 years as a Chapter Advisor, two terms as Director of Engineering Futures, 6 years as a District Director, an Executive Councillor twice, and Association Treasurer.

If elected, he will bring to the EC the wisdom from his many years of leadership experience. His focus will be on enhancing the role of chapter advisors, who are the glue that holds our collegiate chapters together, and marketing Tau Beta Pi so it truly does become the honor society that students in all engineering disciplines strive to join.

STEVE E. WATKINS, Ph.D.

MISSOURI BETA '83

Nominated by the Missouri Beta Chapter. Steve has earned three electrical engineering degrees: B.S. and M.S. degrees from the University of Missouri-Rolla (UMR) and a Ph.D. from the University of Texas at Austin.

He joined UMR (now Missouri S&T) in 1983, is now a professor in the ECE department, where he was interim chair from 2020-22, and director of the Applied Optics Laboratory. Steve has been an advisor to the MO Beta Chapter at S&T since 2014 and has acted as Chief Advisor since 2020. He attended the 2018 Convention as a professional development speaker, the 2022 Convention as a chapter advisor, and has volunteered as a ΤΒΠ scholarship reviewer.

Steve has held leadership board positions in the IEEE Education Society, ASEE, and is a founding and current co-chair of the editorial board for the IEEE Teaching Excellence Hub. His technical interests are smart structures, sensing systems, and engineering education. An IEEE-USA Congressional Fellow, Steve previously served as a Distinguished Visiting Professor at the U.S. Air Force Academy, a visiting physicist at the Phillips Laboratory (USAF) at Kirtland Air Force Base, and a visiting scholar at the Basic Research Laboratories of NTT in Japan.

Steve enjoys pre-college outreach and champions professional development opportunities within the engineering community. As a ΤΒΠ Executive Councillor, he would take particular interest in professional engagement and development activities of chapters and the transition of members from students to working professionals.

TBP SCHOLARS

Scholarships have been awarded to 253 undergraduate members for the 2024-25 year.

The Fellowship Board announced the selection of 253 engineering students from 1,328 applicants. Most recipients will receive $2,000 for one year and a few will receive $1,000 for one semester. This year, a total of $491,000 was awarded. All TBΠ Scholarships are given on the competitive criteria of high scholarship, campus leadership and service, and promise of future contributions to the engineering profession. These awards bring the total to 4,401 scholarships granted since 1998.

Rebecca J. Adkins AL Δ '25
Stabile No. 1242 | Mechanical eng'g

Oriekaose C. Agholor MI Δ '25
Stabile No. 1243 | Mechanical eng'g

Alysha S. Akhtar VA A '25
Record No. 1943 | Biomedical eng'g

Nuha K. Akhtar ID Γ '25
Stabile No. 1244 | Mechanical eng'g

Kylie J. Albright OH Z '25
Stabile No. 1245 | Mechanical eng'g

Theodora T. Alese GA A '25
Record No. 1944 | Biomedical eng'g

Asa S. Alstead CA Ψ '25
Stabile No. 1246 | Structural eng'g

Ana C. Alvarado LA A '25
Stabile No. 1247 | Industrial eng'g

Caleb Andreano WI Δ '25
Record No. 1248 | Computer eng'g

Georgia A. Angeletakis DE A '25
Scribner No. 79 | Environmental eng'g

Aidan A. Anuskiewicz CA Ξ '24
Brems No. 27 | Aerospace eng'g

Christian J. Apostol NY O '25
Dechman No. 10 | Chemical eng'g

Connor L. Arnold FL I '25
Brems No. 28 | Aerospace eng'g

Mia I. Baca NM B '25
Stabile No. 1249 | Chemical eng'g

Avi Balakirsky OH Γ '25
Stabile No. 1250 | Mechanical eng'g

Rachael A. Ballentine OH M '25
Stabile No. 1251 | Mechanical eng'g

Dylan F. Barton FL H '25
Pasadyn No. 2 | Chemical eng'g

Tyler J. Beasley SC B '25
Stabile No. 1252 | Computer eng'g

Elizabeth B. Beraducci FL Z '25
Spirit of Apollo No. 11 | Aerospace eng'g

Paul G. Berggren NY K '25
Stabile No. 1253 | Elec. & Comp. eng'g

Chealen M. Berry IL Γ '25
Stabile No. 1254 | Civil eng'g

Benjamin M. Beyerle KY B '25
Stabile No. 1255 | Mechanical eng'g

Annaliese M. Braucht SD A '25
Record No. 1945 | Biomedical eng'g

Nicholas E. Bray MI A '26
Record No. 1946 | Biosytems eng'g

The following scholarships are named for members:

Linda M. Abriola, Ph.D., *PA Z '76*, and her brother Joseph L. Abriola Jr., *TN B '80*, established the Gloria and Joseph L., *PA Z '48*, **Abriola Scholarship** in memory of their parents.

Henry M. Alford, *MS A '27*, left a bequest sufficient to permanently endow the **Alford Scholarships**.

The **Althouse Scholarship** honors Ernest E. Althouse, *PA A 1926*, who left a bequest in 2006.

The **Badiru Scholarship** is in recognition of Adedeji B. Badiru, Ph.D., P.E., *TN Γ '79*, a 2024 recipient of the TBΠ Distinguished Alumnus Award.

Past Association vice president Bill Beans, Ph.D., *OH Γ '53*, established the William and Zeda **Beans Scholarship,** given for the second time.

Thomas R. Berthold, *IL A '70*, made gifts to the Association, in 2018, to fund the **Berthold Scholarship**.

The **Bloomberg Scholarship** is named for Michael R. Bloomberg, *MD A '64*, whose gifts have funded one award for 17 years.

Marian K. and John H. Brems Jr., *MI Γ '46*, left a bequest in 2016 to fund the **Brems Scholarships**.

Ruth M. and Cleveland L. Campbell, P.E., *IA A '47*, made gifts to permanently endow the **Campbell Scholarships**.

The **Dechman Scholarship** was established by David, *VA B '82*; Ken, and Jim Dechman, *TX A '89*; to honor their father, Don A. Dechman, *TX A '57*, on his 80th birthday.

The **Dodson Scholarships** are sponsored by the late Charles R. Dodson, *MD B '30*, who made gifts to the Association in 1998 and 1999.

The **Elovitz Scholarship** is funded through a gift of stock by Kenneth M. Elovitz, *PA A '75*, given for the first time.

Nick A. Farmer, *MD B '68*, made a gift in 2019 to establish the **Farmer Family Scholarship**.

Charles O. Forge, *CA Γ '56*, left a bequest in 2010 to support the **Forge Scholarships**.

The first **Fue Scholarship** recognizes Harold C. Fue, *IL A '57*, who left a bequest in 2022 and 2023.

The **Goodin Scholarship** is in recognition of William R. Goodin, Ph.D., *CA E '75*, a 2024 recipient of the TBΠ Distinguished Alumnus Award.

James C. Lugannani, *NJ Δ '81*, established the **Dorothy Hopp Lugannani and Robert Lugannani Scholarship** to support 1st generation college students and immigrants/refugees.

All Scholars submitted a short bio that has been posted on our ΤΒΠ website at:
www.tbp.org/memb/ScholarArchives/ScholarBios/ScholarBios24-25.pdf

Joseph E. Brooks CA Ρ '24
Forge No. 149 | Geomatics eng'g

Aavash Budhathoki DC Α '25
Stabile No. 1256 | Mechanical eng'g

Tyler Y. Burt CO Α '24
Record No. 1947 | Mechanical eng'g

Rebecca L. Burton UT Β '25
Stabile No. 1257 | Chemical eng'g

Nicole S. Calandra MA Α '25
Stabile No. 1258 | Chemical eng'g

Oscar D. Camargo FL Α '25
Stabile No. 1259 | Computer Science

Anthony J. Cammarano NJ Β '24
Stabile No. 1260 | Industrial eng'g

Karla N. Caraballo Soto PR Α '24
Record No. 1948 | Chemical eng'g

Sebastian Castro FL Η '25
Sickafoose No. 14 | Chemical eng'g

James H. Chalmers IV MS Α '25
Stabile No. 1262 | Mechanical eng'g

Courtney A. Chan NY Ρ '24
Stabile No. 1263 | Mechanical eng'g

Sabrina E. Chandra FL Β '25
Stabile No. 1264 | Industrial eng'g

Anna Chen TN Α '24
Record No. 1949 | Industrial & Sys. eng'g

Tse-Wen "David" Chen CA Τ '25
Forge No. 150 | Computer Sci & eng'g

Amy Chou NC Γ '25
Stabile No. 1265 | Mechanical eng'g

Kunal Chugh TN Β '25
Stabile No. 1266 | Electrical eng'g

Christian J. Cipolletta NJ Ε '25
Stabile No. 1267 | Elect. & Comp. eng'g

Bridger A. Cole MT Α '25
Stabile No. 1269 | Mechanical eng'g

Sarah E. Cole ID Γ '25
Stabile No. 1268 | Materials Sci. & eng'g

Ariel E. Colón Rodríguez NC Η '25
Stabile No. 1270 | Mechanical eng'g

Maria C. Correa CA Γ '25
Rushing No. 1 | Civil eng'g

Gemma M. Crowe TN Δ '25
Stabile No. 1271 | Mechanical eng'g

Michael A. Daanen PA Η '25
Record No. 1950 | Biomedical eng'g

Trevor S. Dady AR Β '24
Record No. 1951 | Mechanical eng'g

Josh M. De Leeuw NY Δ '25
Stabile No. 1272 | Computer Science

Noah R. Decker NY Π '25
Stabile No. 1273 | Chemical eng'g

Meredith K. Depuy VA Β '25
Stabile No. 1274 | Industrial & Sys. eng'g

Porter B. Dixon UT Β '25
Stabile No. 1275 | Electrical eng'g

Sarah J. Dixon KS Α '25
Soden No. 27 | Chemical eng'g

Casey M. Dolan PA Α '25
Stabile No. 1276 | Materials Sci. & eng'g

The **Lyons Scholarship** is given in memory of Eddie L. Lyons, *CA Π '76*, thanks to gifts from his wife Nancy E. Zeigler-Lyons.

The **Nagel Scholarship** is given in honor of Robert H. Nagel, P.E., *NY Δ '39*, for his service as Editor & Secretary-Treasurer from 1942-82 and as Secretary-Treasurer Emeritus from 1982-97.

Thomas A. Nelson, *CA Δ '49*, left a bequest to establish the **Nelson Scholarship** to support students in need of financial aid.

The second **Pasadyn Scholarship** has been awarded through a gift from Ronald C. Pasadyn, P.E., *OH Ε '70*, to establish the Judith L. and Ronald C. Pasadyn Scholarship Fund.

The **Record Scholarships** commemorate Leroy E. Record, *KS Α '29*, whose generous bequest will provide earnings to support awards in perpetuity.

The first three **Rushing Scholarships** have been awarded through a gift from Jay A. Rushing, Ph.D., *TX Δ '76*.

The **Schwaller Scholarship** commemorates Shawn R. Schwaller, *SD Α '95*, whose friends and family established a fund in 2007.

A bequest from A. Clayton Scribner, *NY Γ '29*, permanently endows the **Scribner Scholarships**.

The **Sickafoose Scholarship** is named for Kathleen A. and Robert D. Sickafoose, *IL Β '50*, who left a bequest in 2012.

Glenn A. Skaggs, *MD Β '57*, left a bequest in 2017 to permanently endow the **Skaggs Scholarships**.

The three **Soden Scholarships** are named for Archie D. Soden, *CA Δ '51*, who made gifts to ΤΒΠ to fund scholarships in perpetuity.

The **Spirit of Apollo Scholarship** is supported by an anonymous donor to honor the legacy of the U.S. NASA Apollo program.

The **Stabile Scholarships** are named for Vincent A. Stabile, *NY Λ '40*, whose gifts to the Association have permanently endowed scholarships.

The **Steadman Scholarship** is in recognition of John W. Steadman, Ph.D., P.E. *WY Α '64*, a 2024 recipient of the ΤΒΠ Distinguished Alumnus Award.

A corporation sponsors the remaining scholarship.

The Alabama Power Foundation, Inc., made a gift in 1995 to endow an **AL Power Scholarship,** awarded for the 21st time.

TBP SCHOLARS

Continued

Charles T. Dolph CA Θ '24
Forge No. 151 | Mechanical eng'gg

Padma Deepa Doppalapudi OH M '25
Skaggs No. 20 | Electrical eng'g

Treyton A. Dorrell OK Γ '25
Stabile No. 1277 | Aerospace eng'g

Emma J. Dreyer VT A '25
Record No. 1952 | Environmental eng'g

Ethan L. Duff IN Δ '25
Stabile No. 1278 | Mechanical eng'g

Mary H. Dunbar OK Γ '24
Stabile No. 1279 | Chemical eng'g

Madeline E. Dunsmore NJ E '25
Record No. 1953 | Biomedical eng'g

Marco T. Ebeling CA Δ '25
Nelson No. 1 | Electrical eng'g

Pierson J. Ederle NY Y '25
Stabile No. 1280 | Mechanical eng'g

Catherine E. Elliott MD B '25
Dodson No. 97 | Civil eng'g

Josiah T. Entner OH N '25
Stabile No. 1281 | Civil eng'g

Dylan M. Ernst KY A '25
Soden No. 28 | Chemical eng'g

Anthony D. Esposito WI B '25
Stabile No. 1282 | Computer eng'g

Cheyenne M. Ethridge MS B '25
Stabile No. 1283 | Civil eng'g

Hannah C. Even NJ Δ '25
Stabile No. 1284 | Mech. & Aero. eng'g

Taylor Fanning MI B '24
Record No. 1954 | Engineering

Sofia J. Fardella WI A '24
Record No. 1955 | Biomedical eng'g

Abigail S. Farhat CA Δ '25
Nelson No. 2 | Comp. Sci. & Game Design

Nicole A. Fiebiger NE A '25
Stabile No. 1285 | Civil eng'g

Ingridy N. Foltran TX N '25
Stabile No. 1286 | Civil eng'g

Brian D. Foster OH Γ '25
Farmer Family No. 1 | Comp. Sci. eng'g

Amelya G. Fox TN A '25
Record No. 1956 | Biomedical eng'g

Jessica A. Frank MO B '25
Stabile No. 1287 | Geological eng'g

Ella E.M. Freeman KY B '25
Record No. 1957 | Electrical eng'g

Logan B.M. Freeman UT Γ '25
Stabile No. 1288 | Mechanical eng'g

Claire C. Fuerst OH Z '25
Beans No. 2 | Chemical eng'g

Ryan J. Galvan TX N '25
Stabile No. 1289 | Mechanical eng'g

Nolan R. Gerdes WY A '25
Steadman No. 1 | Civil eng'g

Mrigayu Ghosh TX A '26
Record No. 1958 | Biomedical eng'g

Jenna V. Giesecke NJ A '25
Stabile No. 1290 | Mechanical eng'g

Jaime M. Girtain NJ Z '26
Stabile No. 1291 | Mechanical eng'g

Emily A. Gladden SC B '25
Record No. 1959 | Biomedical eng'g

Andrea C. Godoy FL B '25
Record No. 1960 | Biomedical eng'g

Julia R. Going FL Δ '25
Scribner No. 80 | Environmental eng'g

Jackson E.H. Granat IL A '25
Berthold No. 3 | Engineering Physics

Jadyn E. Guidinger ND B '25
Stabile No. 1292 | Chemical eng'g

Halide Zeynep Haciguzeller MA H '25
Record No. 1961 | Biomedical eng'g

Michaela N. Haensgen WI Δ '25
Record No. 1962 | Chem. & Biomol. eng'g

Hankel L. Haldin IA A '24
Record No. 1963 | Computer eng'g

Stephanie Handford MS B '24
Stabile No. 1293 | Mechanical eng'g

Brennan S. Harms NE A '25
Stabile No. 1294 | Mechanical eng'g

Nicholas L. Harrell MD Δ '25
Dodson No. 98 | Computer eng'g

Eric He CA A '25
AL Power No. 21 | Nuclear eng'g

Sebastian M. Helgeson MN A '25
Stabile No. 1295 | Computer Science

James P.G. Hindy GA Γ '25
Stabile No. 1296 | Mechanical eng'g

Gloria Y. Huan TX A '25
Stabile No. 1297 | Mechanical eng'g

Ethan D. Huchler VA E '25
Stabile No. 1298 | Chemical eng'g

Jennifer M. Hughes FL Δ '26
Scribner No. 81 | Environmental eng'g

Michael S. Ibrahim WA A '25
Record No. 1964 | Computer Science

Harrison T. Iles GA Δ '25
Lyons No. 14 | Elec. & Electronics eng'g

Kathryn S. Ix PA Θ '25
Stabile No. 1299 | Computer eng'g

Karen Jin MI Γ '25
Record No. 1965 | Biomedical eng'g

Hope I. Johnson NY B '25
Stabile No. 1301 | Chemical eng'g

Jenner K. Johnson MA A '25
Stabile No. 1300 | Aerospace eng'g

Charles J.M. Jouaneh RI B '25
Stabile No. 1302 | Chemical eng'g

Sachin V. Kammula MD A '25
Record No. 1966 | Chem. & Biomol. eng'g

Marina Katoh OK B '26
Stabile No. 1303 | Systems eng'g

Meryl R. Keeler OR A '25
Stabile No. 1304 | Chemical eng'g

Andrew J. Kehmeier CO Δ '25
Record No. 1967 | Biomedical eng'g

Naomi E. Kern WA A '25
Stabile No. 1305 | Chemical eng'g

Anamica Khadgi MS Α '25
Record No. 1968 | Biomedical eng'g

Georgianna Y. Khong AL Γ '25
Record No. 1969 | Biomedical eng'g

Thomas A. King IN Γ '25
Stabile No. 1306 | Mechanical eng'g

Allison J. Knapp OH Β '25
Stabile No. 1307 | Mechanical eng'g

Otto K. Knittel MO Β '25
Stabile No. 1308 | Mechanical eng'g

Kathryn F. Knowles CA Υ '26
Forge No. 152 | Mechanical eng'g

Landon J. Kocer SD Β '25
Skaggs No. 21 | Electrical eng'g

Michael F. Kong OH Α '25
Record No. 1970 | Biomedical eng'g

Austin M. Konrath MN Β '25
Stabile No. 1309 | Civil eng'g

Andrzej J. Korlacki MD Γ '25
Stabile No. 1310 | Nuclear eng'g

Logan A. Krause WI Ε '25
Record No. 1971 | Environmental eng'g

Maxwell L. Krauth CA Σ '25
Forge No. 153 | Mechanical eng'g

Vance E. Kreider MI Γ '25
Stabile No. 1311 | Mechanical eng'g

Joseph W. Krejchi IA Α '25
Record No. 1972 | Cyber Security eng'g

Marlin U. Kropp CO Β '25
Stabile No. 1312 | Mechanical eng'g

Ava T. Lanczy WI Α '25
Nagel No. 72 | Biomedical eng'g

Hunter S. Larson CA Σ '24
Alford No. 26 | Electrical eng'g

ChengEn "Daphne" Lee CA Τ '25
Forge No. 154 | Computer Sci & eng'g

William J. Liang PA Δ '25
Record No. 1973 | Computer Science

Jade Lorences NJ Γ '25
Record No. 1974 | Biomedical eng'g

John Loshuk IV OH Λ '25
Stabile No. 1313 | Civil eng'g

Quentin C. Lovejoy IN Α '25
Stabile No. 1314 | Civil eng'g

Moises Loya NM Β '25
Skaggs No. 22 | Electrical eng'g

Phylicia Ma PA Γ '25
Record No. 1975 | Materials Sci. & eng'g

Alan L. Mach RI Α '25
Record No. 1976 | Biomedical eng'g

Alanna M. Makarchuk MI Η '25
Stabile No. 1315 | Computer eng'g

Be-Once A.Z. Marsh TX Ε '25
Record No. 1977 | Biomedical eng'g

Riley C. Marszalek MA Ε '25
Record No. 1978 | Bioengineering

Abigail J. Mastromonaco MA Θ '25
Stabile No. 1316 | Plastics eng'g

Kenna J. McAllister VA Δ '25
Stabile No. 1317 | Civil eng'g

Douglas K. McDonough NJ Α '25
Stabile No. 1318 | Mechanical eng'g

Parker G. Megginson AL Α '25
Record No. 1979 | Computer eng'g

Emily C. Meyer AL Δ '25
Stabile No. 1319 | Mechanical eng'g

Junyuan Mi CA Φ '26
Record No. 1980 | Computer eng'g

Landon C. Morgan TN Γ '25
Campbell No. 57 | Chemical eng'g

Snigda Nadella NJ Γ '25
Record No. 1981 | Biomedical eng'g

Sanjay Nagaraj CA Γ '25
Forge No. 155 | Computer Science

Avineet G. Nanjappa PA Γ '25
Stabile No. 1320 | Chemical eng'g

Sindhu Narayan DE Α '25
Record No. 1982 | Biomedical eng'g

Ashlyn L. Neal AL Β '25
Stabile No. 1321 | Computer Science

Amanda S. Newbury NY Ν '25
Skaggs No. 23 | Electrical eng'g

Danielle E. Newell AZ Δ '24
Record No. 1983 | Software eng'g

David C. Newman VA Δ '25
Stabile No. 1322 | Civil eng'g

Farah Nisar NJ Β '25
Record No. 1984 | Biomedical eng'g

Tess C. Obuchowski IN Α '25
Stabile No. 1323 | Materials eng'g

Jennifer Oettinger NY Α '25
Record No. 1985 | Computer Science

Kerrin A. O'Grady NY Β '25
Record No. 1986 | Biomedical eng'g

Adam J. Ohm TN Γ '25
Badiru No. 1 | Chemical eng'g

Owen O'Malley MD Γ '25
Stabile No. 1324 | Systems eng'g

Aidan T. O'Neal LA Α '25
Scribner No. 82 | Environmental eng'g

Christopher M. O'Neill Jr. CO Β '26
Brems No. 29 | Aerospace eng'g science

Eric D. Ovcharenko OR Β '25
Stabile No. 1325 | Mechanical eng'g

Andreas R. Palmateer OR Α '25
Stabile No. 1326 | Chemical eng'g

Rishi P. Patil IL Α '26
Fue No. 1 | Civil & Environ. eng'g

Eli C. Pay VT Α '25
Stabile No. 1327 | Mechanical eng'g

Janelle J. Pezzuti OH Λ '25
Stabile No. 1328 | Chemical eng'g

August B. Phelps MD Δ '25
Dodson No. 99 | Mechanical eng'g

Jason Pien RI Α '25
Stabile No. 1329 | Computer eng'g

Terrence C. Pierce MD Β '26
Dodson No. 100 | Mechanical eng'g

Kristina A. Pinkham MO Ε '25
Record No. 1987 | Biomedical eng'g

TBP SCHOLARS

Continued

Brian S. Poon CA Θ '24
Forge No. 156 | Computer Science

Micah W. Popejoy OK Α '25
Stabile No. 1330 | Computer eng'g

Vaidehi Pujary AZ Α '25
Stabile No. 1331 | Elect. & Comp. eng'g

Benson Pulver UT Α '25
Record No. 1988 | Mechanical eng'g

Abrar S. Rafi IL Β '25
Stabile No. 1332 | Mechanical eng'g

Sabahat Rahman MD Α '25
Bloomberg No. 18 | Biomedical eng'g

Elina Rani NY Ρ '25
Record No. 1989 | Chem. & Biomol. eng'g

Tarini Ravikumar PA Λ '25
Record No. 1990 | Bioengineering

Asher C. Ricci PA Ε '25
Stabile No. 1333 | Mechanical eng'g

Tod T. Richards OR Β '24
Stabile No. 1334 | Civil eng'g

Hannah R. Richardson AL Ε '25
Stabile No. 1335 | Mechanical eng'g

Sarah G. Rickborn NY Γ '26
Stabile No. 1336 | Aerospace eng'g

Landon T. Roberts CO Α '25
Schwaller No. 14 | General eng'g

Mikeal E.E. Rodriguez-Clark FL Γ '25
Althouse No. 16 | Electrical eng'g

Ryan D. Rusch CA Ε '25
Forge No. 157 | Materials eng'g

John F. Ryan IV MA Κ '25
Stabile No. 1337 | Mechanical eng'g

Adam B. Sacherich PA Μ '25
Stabile No. 1338 | Mechanical eng'g

Hrishav Sapkota DC Α '25
Lugannani No. 1 | Computer Science

Ashleigh C.E. Sayles GA Δ '25
Stabile No. 1339 | Mechanical eng'g

Rachel E. Schenck MI Α '25
Elovitz No. 1 | Materials Sci. & eng'g

Kathryn A. Schinaman IN Γ '25
Stabile No. 1340 | Computer Science

Nicole Schottler MN Α '25
Record No. 1991 | Biomedical eng'g

Jack A. Seabaugh AR Β '25
Record No. 1992 | Elect. & Comp. eng'g

Claudia Q. Seyfarth WI Β '25
Stabile No. 1341 | Mechanical eng'g

Dhruv M. Shah OH Α '26
Record No. 1993 | Biomedical eng'g

Kimball A. Sheehan VA Α '25
Campbell No. 58 | Biomedical eng'g

Andrew K. Shipley AZ Γ '25
Scribner No. 83 | Environmental eng'g

Keshav O. Shukla CA Ε '25
Goodin No. 1 | Chemical & Biomol. eng'g

Shivam Singh NC Γ '25
Record No. 1994 | Biomedical eng'g

Kopchon Sittithammachoti CA Ω '25
Stabile No. 1342 | Engineering

Zachary M. Slade NY Ο '26
Record No. 1995 | Chem. & Molec. eng'g

Finlay Smith PA Ε '25
Stabile No. 1343 | Chemical eng'g

Teagan R. Smith NY Δ '25
Record No. 1996 | Environmental eng'g

William J. Sobczak FL Α '25
Scribner No. 84 | Environmental eng'g

Noah M. Stiegler MA Δ '25
Stabile No. 1344 | Engineering Physics

Joseph G. Stringham UT Γ '25
Stabile No. 1345 | Civil eng'g

Elizabeth K. Sundheim CA Ω '25
Stabile No. 1346 | Engineering

Sriya Surapaneni GA Α '24
Record No. 1997 | Biomedical eng'g

Madeline J. Szoo MA Ε '25
Stabile No. 1347 | Chemical eng'g

Anika Tabassum MI Κ '24
Record No. 1998 | Computer eng'g

Allie Jia Hui Tay NY Κ '25
Record No. 1999 | Biomedical eng'g

Michael D. Taylor CA Λ '25
Brems No. 30 | Aero. & Mech. eng'g

Miles T. Teng-Levy NY Μ '25
Stabile No. 1348 | Mechanical eng'g

Hasan A. Termos MI Ι '25
Stabile No. 1349 | Mechanical eng'g

Steven Tian NY Α '25
Stabile No. 1350 | Mechanical eng'g

Tiffany Toh CT Α '25
Alford No. 27 | Electrical eng'g

TBP SCHOLARS

Continued

Zachary B. Toth OH Ι '25
Stabile No. 1351 | Mechanical eng'g

Sanay Tralshawala NY Γ '26
Stabile No. 1352 | Mechanical eng'g

Emma J. M. Trisch MI Η '25
Stabile No. 1353 | Architectural eng'g

Dariana J. Troche Quinones PR Α '24
Stabile No. 1354 | Mechanical eng'g

Izel N. Tuncer FL Ι '25
Brems No. 31 | Aerospace eng'g

Clive E. Uy SD Α '26
Stabile No. 1355 | Mechanical eng'g

Megan A. VanderLeest KS Γ '25
Stabile No. 1356 | Architectural eng'g

Dawn Veditz CA Μ '25
Forge No. 158 | Mechanical eng'g

Keziah A. Vela AL Β '24
Record No. 2000 | Mechanical eng'g

Lukas D. Velasco CA Ξ '25
Forge No. 159 | Computer eng'g

Ashley E. Velasquez IN Δ '25
Record No. 2001 | Biomedical eng'g

Carolina Vellenich Triboni AL Α '25
Abriola No. 1 | Civil eng'g

Hannah J. Vogts IA Β '25
Record No. 2002 | Biomedical eng'g

Max W. Vroemen CA Ψ '25
Dodson No. 101 | Chemical eng'g

Thu Nga "Nerissa" Vu PA Η '25
Stabile No. 1357 | Chemical eng'g

Chau Vuong TX Ε '26
Record No. 2003 | Biomedical eng'g

Amelia E.J. Walker CA ΑΕ '24
Forge No. 160 | Industrial & Sys. eng'g

Christian S. Welch CA ΑΕ '25
Forge No. 161 | Industrial & Sys. eng'g

William T. West MN Β '25
Stabile No. 1358 | Mechanical eng'g

Travis P. White Jr. GA Β '25
Stabile No. 1359 | Mechanical eng'g

Troy D. White PA Θ '25
Stabile No. 1360 | Civil eng'g

Dominique A. Whyte NY Ξ '25
Stabile No. 1361 | Chemical eng'g

Timothy A. Wilson SC Α '26
Stabile No. 1362 | Industrial eng'g

Randall D. Winch SD Β '25
Stabile No. 1363 | Agricultural eng'g

Greyson A. Wintergerst TN Β '25
Stabile No. 1364 | Computer Science

Jakub T. Wittrock MI Ι '25
Rushing No. 2 | Elect. & Comp. eng'g

Allison D. Wolf KS Γ '25
Soden No. 29 | Chemical eng'g

Erica A. Wood SC Α '25
Stabile No. 1365 | Chemical eng'g

Harrison S. Yang KY Α '25
Rushing No. 3 | Biomedical eng'g

Morgan Yang ID Δ '24
Skaggs No. 24 | Electrical eng'g

Russell A. Yang CT Α '25
Stabile No. 1366 | Electrical eng'g

Crystal X. Zhu CA Φ '26
Forge No. 162 | Bioengineering

Helen Zhu IL Γ '25
Stabile No. 1261 | Computer Science

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LINKEDIN:
linkedin.com/groups/101390/

YOUTUBE:
youtube.com/c/TheTauBetaPiAssociationInc

BRAIN TICKLERS

Results From Spring

Perfect Scores

Costantino, John T.	NJ	A	'79
*Couillard, J. Gregory	IL	A	'89
*Gerken, Gary M.	CA	H	'11
*Gibbs, Kenneth P.	MO	Γ	'76
*Kuhn, Walter A.	OH	A	'81
McHenry, S. Dale	MO	B	'81
*Norris, Thomas G.	OK	A	'56
*Slegel, Timothy J.	PA	A	'80
Upshur, John I.	VA	A	'83

Other

Bertrand, Richard M.	WI	B	'73
Bhatia, Sunita K.	DE	A	'92
Braña-Mulero, Francisco	PR	A	'74
Budd, Christopher M.	AZ	B	'94
Cross, Harry L.	MI	Γ	'65
*Golemme, Steven S.	IL	A	'20
Griffiths, Peter D.	GA	A	'82
*Griggs Jr., James L.	OH	A	'56
Hedegard, Alan H.	IN	A	'64
Jordan, R. Jeffrey	OK	Γ	'00
Lalinsky, Mark A.	MI	Γ	'77
Marks, Lawrence B.	NY	I	'81
Routh, Andre G.	FL	B	'89
Spring, Gary S.	MA	Z	'82
Spring, Mitchell G.	Son of member		
*Strong, Michael D.	PA	A	'84
Summerfield, Steven L.	MO	Γ	'85
Szostek, Renée	MI	A	'87
Tso, Robert	CA	E	'80
Voellinger, Edward J.	Non-member		
*Wilkinson, Timothy S.	WA	A	'84

*Denotes correct bonus solution

Spring Review

The intended answer of the rose bushes problem was 12, as published in the summer issue. For values of white bushes greater than 2, it can be found that the greatest common divisor of the number of surviving yellow bushes is 12. So, a group of 12 citizens will always be able to pay for an equal number of bushes regardless of how many white bushes were originally planted. The problem, as re-written from the original source, has the answer of w^4-w^2, where w is the number of white roses planted, and each citizen pays for a single bush, so this answer was also accepted as correct.

Spring Review *Continued*

Even so, this was the most missed problem, with the 2nd most missed being the roller problem.

The Geometric Construction and Bonus problems had >90 percent correct answers.

Fall Correction

Harry L. Cross, *MI Γ '65*, pointed out an error in our Fall 2023 problem #3 solution: "t = 35329 seconds after midnight" corresponds to 9:48:49 while 2:11:11 is actually 7,871 seconds after midnight.

Summer Answers

1: **16** is the value of (A+F+F+I+X+I+N+G) - (A+N+S+W+E+R).

F+O+U+R = 4 and F+O+U+R+T+E+E+N = 14 => T+E+E+N = 10.

T+E+E+N = 10 and T+E+N= 10 => E = 0.

T+H+R+E+E = 3 and T+H+I+R+T+E+E+N = 13 => T+H+R = 3 and T+H+I+R = 3 => I = 0.

N+I+N+E = 9 => N = 4.5.

O+N+E = 1 => O = -3.5.

T+E+N = 10 => T = 5.5.

T+W+O = 2 => W = 0.

(A+F+F+I+X+I+N+G) - (A+N+S+W+E+R) => 2*F+2*I+X+G-(S+W+E+R) => 2*F+X+G-(S+R)

Substituting those six values, we get:

-2.5 = H+R

7.5 = F+R+U

5 = F+V

6 = X+S

2.5 = S+V

2.5 = G+H

6.5 = L+V

7.5 = F+R+U

X+2*F+G-R-S

G+H = 2.5 and H+R = -2.5 => G-R = 5

X = 6-S; S = 2.5-V; V = 5-F => X = 6-(2.5-(5-F)) => X=8.5-F

5=F+V and 2.5=S+V => F-S=2.5

(8.5-F)+2*F+(5)-S => 13.5+F-S => 13.5+2.5 = 16

2: **23/36** is the exact probability that the two queens do not attack each other. In the upper 4×4 left quadrant of the chessboard, there are 10 placements of the first queen that are unique (the rest are reflections).

For each of those, count the safe places for the second queen. One gets: (4*(42/64) + 8*(42/64) + 8*(42/64) + 8*(42/64) +4*(40/64) + 8*(40/64) + 8*(40/64) +4*(38/64) + 8*(38/64) +4*(36/64))/63 = 23/36

3: There are **66** ambiguous configurations of the clock in a 12-hour period. Using hour:minute:second notation, the hands are ambiguous when h:5*j:t equals j:5*h:s. 5h/60 + s/60/60 = h/12 + 5j/12/60 + t/12/60/60 => t = 12(s-25j). j/12 + 5h/12/60 + s/12/60/60 = 5j/60 + t/60/60 => s = 12(t-25h).

Solving for s and t, we get => t = 300(12h+j)/143 and s = 300(h+12j)/143 where both h and j are 0, 1, 2, ... 11.

Of the 144 times, 12 have the hands at the same location, so are not ambiguous; 144-12 = 132. However, these 132 times double count configurations, so there are 132/2 = 66 ambiguous configurations.

4: The two guides are both **Reds**; the three winners are **Gray, Red, Green**. Since the two guides said the winners are all different, at least one is a lie at each place. If either guide is a Green, the other is a Gray; but that means both would tell the truth at the same time during three statements (which did not happen); so no Green guides. If either guide is a Gray, then the other guide first told the truth, so is also a Gray. Both being Grays, means both say the truth at the same time during three statements (which also did not happen); so no

Gray guides. Therefore, both guides are Reds and the winners are the colors not mentioned.

5: **842,105,263,157,894,736** is the last number on the list where each number is twice the previous number and a rotation of the previous number.

BONUS: The number of different resistances possible is:

N	1	2	3	4	5	6
f(*N*)	1	2	4	**9**	**23**	**57**
g(*N*)	1	3	7	**15**	**35**	**79**

Where, f(*N*) is using exactly *N* resistors and g(*N*) is using 1 to *N* resistors. The hard part is figuring out all the arrangements. Once that is done, it is just algebra to compute values. Using one through four resistors, only series and parallel arrangements need be considered. Let F(*N*) be the set of possible values using exactly *N* resistors (there might be duplicates). So, the first few sets are:

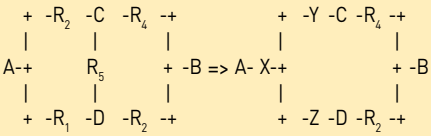
F(1) = {1}

F(2) = {2, 1/2}

F(3) = {3, 1/3, 2/3, 3/2}

F(*N*+1) builds upon F(1), F(2), ..., F(*N*). That is, create cross products of members of the first set with members of the second set and then apply each pair to both series and parallel arrangements. So, for example, F(4) looks at: series(F(1),F(3)), parallel(F(1),F(3)), series(F(2),F(2)), parallel(F(2),F(2)). F(5) looks at: series(F(1),F(4)), parallel(F(1),F(4)), series(F(2),F(3)), parallel(F(2),F(3)), and then add in a bridge arrangement (which only is 1 ohm). Now, starting with F(6), the combinations begin to grow faster. F(6) looks at: series(F(1),F(5)), parallel(F(1),F(5)), series(F(2),F(4)), parallel(F(2),F(4)), series(F(3),F(3)), parallel(F(3),F(3)), series(F(2),F(2),F(2)), parallel(F(2),F(2),F(2)) and bridges.

Now, this bridge can be transformed into a series and parallel arrangement via a Delta to Wye transformation (X,Y,Z depend upon R_1,R_3,R_5).



Also, in the bridge, measuring resistance between any pair of the nodes AC, AD, BC, BD, or CD is just a series/parallel arrangement, so can be ignored; as it has already been done. So, the only measurement that matters is AB. Let resistors R_1, R_2, R_3, and R_5 be 1 ohm and R_4 be either 2 or 1/2 ohms (the set from F(2)). That means X=Y=Z=1/3 ohm, and AB is either 13/11 or 11/13 ohms. So, it is just a matter of doing a lot of algebra to fill in the table.

COMPUTER BONUS:

The three integers (**168**, **192**, and **224**) all have the same product *N**D(*N*), where D(*N*) is the number of divisors of *N*, including 1 and *N*. To find those numbers, factor *N* into product of primes: $p^a * q^b * r^c$ ... Then, the number of divisors is (a+1)*(b+1)*(c+1) ... .

New Fall Problems

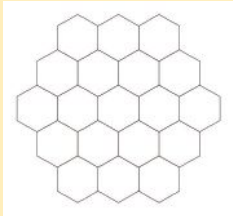
1: Not Really Congruent Triangles

Find a pair of triangles, each with integer length sides, such that they have the same longest side and same area but different perimeters. Your answer should report the pair with the smallest area, listing the sides of each triangle in increasing order.

—**Don A. Dechman,** *TX A '57* (*deceased*)

2: Magic Beehive

Given a beehive of the following shape:



Assign integers from 1 to 19 to the cells of the beehive such that each of the 15 horizontal and diagonal lines adds to the same total. For ease of scoring, give your answer with the smallest "corner" on the top left, and its smaller neighbor in the top middle.

—*The Contest Center*

3: Bridge Crossing

On a very dark night, four Tau Bates are preparing to cross a bridge (to the other side) which is only strong enough to hold two of them at a time. They only have one flashlight, which they need to make the crossing, and one person must bring the flashlight back across the bridge. The four take *w*, *x*, *y*, and *z* minutes to cross respectively, where $w < x < y < z$. What is the minimum time for all four to cross the bridge (to the other side)?

—Puzzle Corner by Allan Gottlieb in *Technology Review*

4: Points on a Circle

The circumference of a circle is 21 cm. Mark five points on the circumference such that all integer distances from 1 cm to 21 cm are represented along the circumference by the distance between two of these marks. Assuming a defined origin marked on the circle, give your answer as a list of five integers which represent distances between adjacent marks on the circle as it traversed in one direction, starting with the smallest distance.

—*The Surprise Attack* in *Mathematical Problems* by L.A. Graham

Continued on page 42

MAY 1 — JULY 31, 2024

Alumni Giving

Donor Recognition Clubs

The Donor Recognition Clubs are part of our effort to recognize a donor's total lifetime cumulative giving to Tau Beta Pi. **THANK YOU** to the 1,262 TAU BETA PI ALUMNI and others who made donations to the Association totaling $571,703 between May 1, 2024, and July 31, 2024. The names of donors whose gifts were received after July 31 do not appear here but will be published in the Winter 2025 issue. These club names and amounts, established by the ΤΒΠ Executive Council, are set at the following levels:

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PA A 1875, Founder of Tau Beta Pi

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2. Names marked with a † symbol are of deceased members in whose memory donations were made either by relatives and friends or through bequests.

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Tamara W. Luchini
Member's Wife
From the day Bob Nagel first took my husband John to lunch, he was hooked as a volunteer for 40+ years!

Nagel Club
Katy L. Colbry, Ph.D.
MI Α '99
ΤΒΠ giving makes professional skills training available to students and professionals world-wide.

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Idenmill, Ethan Matthew '04
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NY Η Shakun, Melvin F. '50
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OR Α Thresher, Bob Wallace '62
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TX Η Lin, Frank Kuo-Chiang '80
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UT Γ Panatier, Michael James '71
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WA Α Pierce, Russ W. '70
WA Β Cass, Robert Dennis '83
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Yee, Paul Yuen-Po '70
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MAY 1 — JULY 31, 2024

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NJ Β — Pu, Chaohui Andrew '90
NJ Γ — Mauermeyer, Henry A. '72; Reitano Jr., Anthony James '72
NM Α — Peace, Jeffrey Howard '76
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NY Κ — Allyn, Elwyn George '61
NY Λ — Kuras, John Edward '69; Moon, Monte Lee '75
NY Ν — Zarchy, Andrew Stephen '73
NY Ο — Baxter, Scott Charles '85
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OH Γ — Ouellette, Andrew Louis '86
OH Ε — Nock, Jeffrey Edward '80
OH Ζ — Bliss, Douglas Paul '75
OH Η — Campbell, John Joseph '76; Fraass, Ronald Guy '78
OH Λ — Eckhardt, Andrew James '79; Krueger, Karl Hermann '73
OH Μ — Kelly, Gregory Joseph '88
OK Β — Sossamon, Dana Ray '76
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PA Β — Beecher, Gregory A. '78; Moore, Albert Lloyd '56; Smyth, John '61; Thompson Jr., A. '63
PA Δ — Hocker Jr., Robert Gerad '71
PA Ε — Hermann, Frank Valentine '59; Ryan, Richard Edward '86
PA Ζ — Pechulis, Michael John '97
PA Η — McDonnell, Robert William '48
PA Ι — Schoenberger, Lewis Robert '84
RI Β — Withrow, Gregory Lucian '80
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SC Β — Wilson Jr., Robert Lewis '69
TN Α — Bowers, Bob '68; Drake, Mark Anthony '82; Kennedy, Michael Earl '86
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TN Γ — Steelman, James Taylor '71
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TX Γ — Turvey, Harry Douglas '73
TX Δ — Knowles, David Wayne '80; Woram, Brian James Anthony '81
TX Η — Godwin, Albert Eugene '84; Witt III, Arthur William '68
TX Θ — Alvarado, Ruben Armando '72; Stokes, F. Xavier '78
UT Α — Lyman, George Randall '79
VT Α — Kellogg, David Holt '62; Sheldon-Dean, James P. '79
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VA Δ — Gehr, David R. '68
WV Α — Rockenstein, Richard C. '63
WI Α — Goba, John J. '66; Wulff, Kurt Henry '63
WI Β — Hutton, Teresa Jean '91; Swiontek, Thomas John '69
WI Γ — Formella, John Patrick '81

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AL Γ — Banasiewicz, Kenneth Adrian '79
AL Ε — Burnsed Jr., Bill Brannon '72; Mincy, John Wayne '70
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AZ Β — Beemer, Jeffrey Brian '80
AR Α — Gunderman, Stacy Linda '88
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CA Η — Holstead, Raymond H. '71; Khalili, Azita '83; Ramirez, Victor George '70
CA Θ — Stone, Ronald E. '66; Thabault, Charles W. '91
CA Λ — Wells, Russell Patrick '77
CA Μ — Freeman, Karl Allen '89
CA Ν — Howard, Robert Stanley '80; Jimenez, Ramon '95; Johnson, Michael Robert '86; Rheinhardt, Brian J. '83
CA Ξ — Smith II, Gordon F. '97; Stewart, Diana Frieda '83
CA Ο — Mulvihill, Michael Edmund '60; Page, John Arnold '61
CA Π — Steinberg, Dennis Philip '72
CA Ρ — Costello, Vincent J. '08
CA Ψ — Chiu, Corinna Jane '93
CO Β — Farmer, Brian Keith '78; Gustafson, Molly Burkholder '85
CT Β — Douglass, Michael Richard '79; Hill, Dorian Evan '69; Pollack, Edward Eliot '70; Staniunas II, Joseph William '65; Whittlesey, Richard Allen '64
DC Α — Hull, Wayne Kenneth '59; Long, Michael Edward '72
DC Γ — Hill, Howard Thiebaut '62; Sonsteby, Ornulv '74
FL Α — Burkart, Scott Lawrence '78; Charlton, John Dunaway '72
FL Γ — Giovannelli, Ronald Frank '76; Glenn, Frederick '92; Paugh, Wayne Bruce '93
FL Δ — Woods, David Wayne '81
FL Ζ — Fricke, Steven Allen '93
GA Α — Faulkinberry, David Laws '77; Hedrick, A. Fred '69; Northington, Peyton Alexander '78; Sudderth, Stella K. '80
ID Α — Beaudoin, Brian Francis '81

Clarke Club
Jim S. Eastman
WA Α '53
I support ΤΒΠ to encourage student engineers to do their best and to honor their accomplishments.

Downing Club
Joanne B. Compton
NJ Α '79
Supporting Tau Beta Pi helps me encourage the next generation of engineers.

IL Α Bassler III, Robert Edward '74
Smith, Leslie Garrett '48
Uzarski, Donald Ray '80
IL Β Kaplan, Edward '65
IL Γ Asbury, Michael George '83
Christopher, James Mosko '84
Pineault, Wayne '79
IL Ε Cassens, Mark Walter '80
Garfield, Bill Michael '83
IN Α Bower, William Walter '67
Cripe, Duane Byron '82
Dries, David James Anthony '76
Forster, Allen Vaan '72
Lin, Jeffrey Eugene '97
Mucha, Thomas Jerome '60
Muehlbauer, James Herman '63
Paniaguas, John Steven '73
Ward, John B. '58
IN Γ Fleckenstein, John Thomas '64
IN Δ Fielding, John Kent '69
Lyons, David William '71
IN Ε Liechty, Douglas Lynn '73
Tyler, Thomas Lee '54
IA Α Sutherland, Keith Allan '69
IA Β Corrao, Debbie G. '93
Whitmore, Robert William '86
KS Α Pack, Garrett Edwin '60
Struble, Philip William '79
KS Β Stuart Jr., James Franklin '67
KS Γ Roberts, Thomas Carrol '70
LA Α Corripio, Armando Benito '63
Schexnayder Jr., Isby Louis '63
LA Β Marin, Justo Enrique '79
Rickman, Philip Mark '83
LA Γ Wyche III, James Egbert '59
MD Α Cummings, Lori Lynn '83
Hart, Edwin Flessner '68
MD Β Devereaux, John Paul '67
Himes, Doug Lamar '82
Mentzer Jr., William Richard '61
Wamsley, Brian Woodrow '77
Zalesch, Steven Elliot '73
MA Α Cucchi, Thomas '85
Mangiarelli, Christopher A. '96
Oakes, Michael Willard '77
Wielk, Michael Christopher '86
MA Β Butkus, Lawrence Michael '85
Hazen, Nathan L. '56
Koehler Jr., Richard F. '67
Rogers, Peter Todd '82
MA Δ Curtis, Jonathan Greely '69
Ingalls, David Peabody '51
Savage, Paul David '77
MA Ε Sciartelli, Anthony Paul '86
MA Ζ Philbrook, T. Varnum '73
MA Θ Chapman, David M. '83
Moran, James Edward '83
MI Α Beimers, Chuck John '69
Kupfer, Michael David '83
MI Β Durfee, George Lee '51
Glidden Jr., Harry James '65
MI Γ Altin, Mehmet '68
Capelli, Ronald B. '73
Dieck, Donald Henry '65
Fishback, James Allen '74
Friess, John George '57
Kleinau, Julie Ann '84
Lady, Kyle Alexander '10
Nobunaga, Brian N. '83
Pulley, Craig Martin '78
Rigge, Lawrence Allen '83
Stewart, David Mark '76
Stover, Dennis Eugene '67
MI Δ Rutkowski, Paul John '69
MI Ε Moses, Michael Joseph '00
Mutzelburg, Ronald Edward '68
MI Ζ Ricker, Jonathan Bruce '97
Tarricone, Louis Guy '82
MN Α Petrich, Gale Sean '86
MS Α Carman Jr., Jack Baker '62
Hilkert, James Michael '71
Linder, Richard A. '57
MO Α Kehoe, Martin James '72
Salerno, Michael Joseph '84
Zimmerman, Mary Margaret '87
MO Β Friedman, Marc Andrew '00
Myers, Kenneth Raymond '72
Patterson, Michael A. '77
Preston, Scott Steven '97
Steinman, Rebecca Lee '96
Unnerstall, James Anthony '56
MO Γ Apanel, Anna Maria '80
Gatley, William Stuart '56
MT Α Nelson, Frederick Arthur '69
NE Α Gilbreath, Donald Robert '85
Matthews, Deborah Jo '82
Patterson, Roger Kent '73
Paxton, William Glenn '87
Stransky, David Wayne '92
Wolff, Nicholas Lowell '00
NV Α Van Horn, Michael David '76
Wigchert, Albert Henry '74
NJ Α Compton, Joanne B. '79
†Denzer Jr., George Charles '61
Iapicco, Jeffrey Allen '77
NJ Γ DiDomenico, Michael John '65
Husson III, Matthew Alexander '66
Morgan, Dennis Ross '68
Tucker, John Harold '67
NJ Δ Brown, Geoff Scott '83
Gross, Gary Robert '80
Wolff, Richard John '72
NM Α Walker, Michael '63
NY Α Blomberg, Richard David '67
NY Β Gorey, Anthony George '84
NY Γ Gardner, John Herbert '66
Huie, Joe Albert '52
Ives, Jon Robert '61
Walter, Robert Wayne '64
NY Δ Elko, Michael Joseph '89
Kuehne, Don L. '73
Loomis Jr., Herschel H. '57
Philip, James Henry '69
Reynolds, David Allen '71
Roseman, Ann Lynn '81
NY Ε Koehler, George Richard '63
Lee, John H-J '70
McConnell, Donald Patrick '71
Weinig, Shelly '51
NY Ζ Keller, Norm Kurt '58
Sindel, Fred Hans '59
NY Η Goodman, Alvin Solomon '44
Kaplan, Howard Ronald '55
Kushel, Glenn Elliot '68
NY Θ Campana, Michael Albert '94
NY Ι Hartmann, Hans Gustav '70
Trentacosta, Joseph Daniel '69
NY Ο Lumish, Stan '78
NY Κ Dennis, William John '74
Singer, Bart Alan '82
NY Μ Bunk, Donald Samuel '55
NY Ν Deckro, Richard Floyd '72
Theoclitus, David Thomas '86
NY Ξ Boyle Jr., Charles J. '76
Bruzzone, Anthony Federick '12
Mercandetti Jr., Anthony John '99
Snyder, William Joseph '81
NY Π Hoelscher, James Roy '71
NY Ρ Lubrano, Michael '80
McBrien, William J. '87
NY Τ Venable, Richard Robert '95
NC Α Daniels, Eric Andrew '85
Frierson III, J. Lawrence '66
Minday, Richard Michael '66
Stone, Ellen Kay '94
Weirs, Gregory '91
ND Α Engbrecht, James Richard '59
Fay, James Maurice '82
Nyhus, Orville Kenneth '63
ND Β Jesh, Mark Steven '86
OH Α Koch, Carl Conrad '59
Kownacki, Edward Joseph '67
May, Ronald Alan '83
Roder, Paul William '83
Whitney, Gina Marie '80
Zurilla, Ronald William '61
OH Β McCarthy, Martin David '70
Triplett, William James '76
OH Γ Deerhake, William Franklin '66
Powell, David Allen '71
Taylor, Ashley Scott '84
OH Δ Ankrom, Linda Steele '79
Davidson, Lee A. '65
Kurzen, Mark R. '71
OH Ε Duscha, Rudolph Albert '59
Kubinec, William Richard '67
OH Η Freyer, Gustav John '60
Niemeyer, Joseph Bernard '85
Schneider, Greg Richard '80
OH Θ Keller, Robert Lee '63
OH Ι Larson, William Jed '75
Snyder, Sharon E. '09
OH Κ Duffy, Stephen Francis '78
OH Μ Hill, Leah Beth '10
OK Β Hand, Ronald Wayne '72
Strattan, Bob '58
OR Α Anderson, Joseph Russell '66
Stranahan, Chapman Arthur '65
PA Α Arrowsmith, Donald Leighton '65
Bradley, Gordon Hoover '62
Edwards, Gilbert Spencer '67
Jones, Donald Paul '65
Labovitz, Judith Ann '86
Labovitz, Stuart Lewis '85
Lentz, Robert Raines '65
Tomkiel, Stanley Anthony '72
Vosseller, Kenneth Franklyn '62
PA Β Fisher, Robert Harold '72
Krolick, Ronald David '83
PA Γ Chan, Allen Henry '82
Kornuta, Nick Joseph '81
Kuhr, Tina Michelle '81
Rudolph, Anna Jane '79
Sack, John Stuart '75
Spriggs, Scott Alan '87
Wierzbicki, Jeannette Marie '80

Continues on page 30.

MAY 1 — JULY 31, 2024

Alumni Giving

Evans Club
Marwan J. Mukhar
CA Υ '93
Tau Beta Pi supports and grows engineers for college and beyond.

Downing Club continued from page 29

PA Δ Lewis, Timothy '64
PA Ε Amman, Richard Walter '64
Nolan, Chris William '86
Stratton, Carl William '81
PA Ζ Aepli, Theodore Carl '62
Eisenberg, Eric Jay '88
Wagner, William Andrew '89
PA Θ Lacz, Walter '69
Ryan III, Art Peter '65
PA Λ Christian, Rob Francis '07
PR Α Fermaintt, Carlos Juan '84
Novomestky, Frederick '69
RI Β Fletcher, Gilbert Alan '68
Lieberman, James '67
SC Α Peters, William J. '70
Wilson, Rick Lane '81
SC Β Massey, Kristina Logue '71
SC Γ Evans, Joseph Manly '60
Fletcher, Robert Hough '64
Julich, Thomas Frank '76
SD Α Jenkins, Creties David '83
TN Α Cowart, Joseph Lawrence '72
Jenkins, Alvin Leigh '61
Oliver, Edward Earl '66
Tomlinson, Edward Thomas '72
TN Β Macchio, Gregory John '84
Pulley, Debra Domino '78
TN Ζ McGlumphy, Jonathan David '02
TX Α Huang, Lawrence Peter '81
Krieg, Raymond David '60
Moss, Edward R. '64
Shields, David Ray '00
TX Β Fleming, Liz Ann '79
TX Γ Altman, Thomas Clark '70
Money, Lloyd Jean '42
TX Δ Armstrong, Bryan M. '95
Garner, Scott Jahrand '77
Herring, Robert Lee '65
Jordan, Kirk Gerald '80
Massett, Donald Allen '70
Mitchell, Melvin M. '52
Murthy, Prahlad N. '92
Nolen, Kenneth Bernard '57
Richards, Tamela Lynn '81
TX Ε Brown Jr., Thomas Brooks '72
TX Ζ McCabe, Glen Howard '82
TX Η Loper, Thomas Lee '81
Southall, Hugh Landon '68
Williams, Larry Donal '80
TX Θ Brown, James '79
Putnam, Judd Lee '73
TX Λ Hinojosa, Juan Jose '84
VT Β Dekalb, Shawn Wayne '85
VA Α MacKay-Smith Jr., Alexander '59
Mizelle, Peter Privott '60
Shirley, David Eugene '65
VA Β Hyduke, Robert Alan '74
Maloney, Melissa Marie '90
Snidow III, Lyle Christian '74
WA Α McNees, Jackson Lowry '68
Oiye, Martin Yasuyuki '76
Otteman, Lloyd Gilbert '54
Welsh, Bryan Doughlas '87
WA Β Groat, J. Everett '94
Hyde, Gary M. '64
Large, Robert William '60
Nemitz, Rodney Eugene '86
Wahl, David John '62
WV Α King, Staci Renee '96
Ramsey, Walter Jackson '74
WV Β Farmer, Harry Clayton '70
Janeshek, Anthony Martin '74
WI Α Berman, Neil Sheldon '55
Lutz, Leroy Albert '60
Stickles, Kenneth '67
WI Β Derra, Kenneth William '90
Kleinvehn, Lynn Allen '65
Penlesky, Richard J. '73
Sommerville, Martin Glenn '94

Evans Club
David C. Hale
IN Α '59
I support ΤΒΠ engineering students because they are the best and brightest.

Moore Club
Norman R. Berlat
NY Θ '62
I support Tau Beta Pi for encouraging the next generation of engineers.

Become a **Life Subscriber today!**

Don't let your four-year *Bent* subscription expire! Upgrade to a life subscription — $95 for print and $45 for digital only. Fully paid subscribers will receive a copy of the quarterly magazine for ***LIFE;*** just keep your address or email updated with us!

The unused portion (up to $12) of the four-year subscription you received as part of your initiation fee may be applied toward a life subscription, which can be paid over a five-year period. A service charge of $5 is applied if you make partial payments.

Visit www.tbp.org/?subs or tbp.accounting@tbp.org to purchase a life subscription or upgrade your student subscription.
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The STORY BEHIND The PHOTO

Announcing the Fall 2024 "Caption This Photo" Contest!

The camera captured Larry A. Simonson, Ph.D., P.E., *SD A '69*, then a District 12 Director and South Dakota Alpha Chief Advisor, making a point while addressing the 1996 Convention in Rapid City, SD.

The 2024 Convention returns to Rapid City where Larry, still an Advisor, will guide the SD Alpha Chapter in hosting the event, including a tour and lunch at Mt. Rushmore National Memorial.

How to Enter: Send us your witty caption(s) for this photo from Convention archives. If the judges vote yours as one of the ***top three*** (and you have not been a previous winner), **we'll send you a ΤΒΠ t-shirt of your choice!**

Submit your entry using this form: *www.tbp.org/?CaptionSub* or mail to *The Bent* of Tau Beta Pi, Caption Contest, P.O. Box 2697, Knoxville, TN 37901-2697.

DEADLINE: FRIDAY, NOVEMBER 1
5 P.M. [ET]

Questions? Contact *p.mcdaniel@tbp.org*

WINNERS of the Summer 2024 "Caption This Photo" Contest:

The judges reviewed 53 captions crafted by 31 individuals. You can read all entries, including captions and results from recent contests, at ***www.tbp.org/bent-features.cfm#caption***.
If you are interested in serving as one of our judges, contact Pat McDaniel at *p.mcdaniel@tbp.org*.

1ST PLACE:

"When cutting-edge technology meant mastering the pocket Etch-A-Sketch! "

Michael W. Huster, *OH B '78*

2ND PLACE:

"A proud Tau Bate shows off the pinnacle of all engineering inventions."

Christopher M. O'Neill, Jr., *CO B '26*

3RD PLACE: TIE

"George proudly displays his prize for winning third place in Tau Beta Pi's 'Caption This Photo' contest."

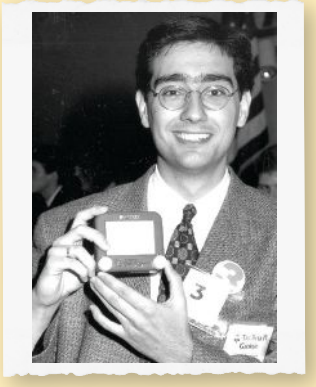
James M. Weger, *OH G '86*

3RD PLACE: TIE

"When Tom dropped to his knee, Cindy expected something a bit more sparkly."

Drake R. Kijowski, *IN A '76*

CONGRATULATIONS TO OUR WINNERS!



▲ This photo from the 1998 Convention in Manhattan, KS, shows George Papayannis, *PA Z '99*, displaying his entry in the Pocket-Etch-A-Sketch-The Bent contest.

IN THE COLLEGES

Tau Bates having an impact at institutions of higher learning.

Angelina K. Anani Ph.D.

Missouri Beta '11

Angelina was recognized by the Mining & Exploration Division of the Society for Mining, Metallurgy & Exploration with its Outstanding Young Professional Award. She is an associate professor at the University of Arizona and was nominated by the department head for her artificial intelligence research, commitment to mentorship, and as a leader in teaching of mining engineering.

Nelson da Luz Ph.D.

New York Xi '15

Nelson has started a new position as a research assistant professor at the University of Massachusetts Amherst, where he earned a Ph.D. and was a postdoctoral researcher. He works at the confluence of data intensive computing and civil infrastructure related to water and sanitation. Nelson received a B.S. in civil eng'g and M.E. in environmental eng'g from Manhattan College.

Ece Erdogmus Ph.D.

Nebraska Alpha '01

Ece was chosen to lead the Clemson University College of Architecture, Art and Construction as its founding dean beginning August 15. Previously, she was chair and professor at the School of Building Construction at Georgia Institute of Technology. Ece was recently named a Fellow of the Masonry Society and her research activities include sustainable & resilient construction.

SPOTLIGHT: University of Kansas Partnership — The KU Institute for Sustainable Engineering has a new name — Wonderful Institute for Sustainable Engineering (WISE-KU) — building on a relationship with The Wonderful Company, co-founded and led by Stewart and Lynda Resnick. Recently, the global agricultural company, one of the world's largest nut processors, has worked in collaboration with WISE-KU researchers to find ways to re-purpose 50 million pounds of pistachio shells, which until now went to carbon-neutral fuel outlets or accumulated on farmland. Professor **Mark B. Shiflett, Ph.D.,** *NC A '88*, WISE-KU founder and director, said this substantial commitment brings together researchers and students with industry to advance global sustainability through engineering, science, and entrepreneurship.

Mineral Crisis Workshop at Missouri S&T — With support from the National Science Foundation, Missouri S&T will annually host leaders from academia, government, and the private sector to discuss the potential of mining critical minerals in the U.S., mineral processing/recycling, policies, and sustainability. **Michael S. Moats, Ph.D.,** *MO B '92*, a professor of metallurgical engineering at S&T and area lead for the Critical Materials Innovation Hub, appeared before the House Committee on Natural Resources Subcommittee on Oversight and Investigations for its hearing, "Dependence on Foreign Adversaries: America's Critical Minerals Crisis." With 30+ years of experience as an extractive metallurgist, he noted that 50 of the 87 elements used for manufacturing, are identified as critical minerals.

Charles B. Fleddermann

Ph.D. *Indiana Gamma '77*

Charles is retiring from the University of New Mexico (UNM) School of Engineering (SOE), where he joined in 1985. He has been SOE associate dean for academic affairs and community engagement since 2002 and served as interim UNM Dean of Engineering and Computing in 2023. Charles is known for teaching eng'g ethics courses and statewide curriculum approval & accreditation.

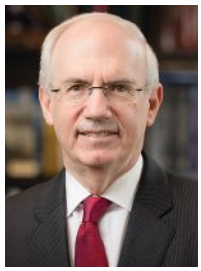
Maddie R. Foster-Martinez

Ph.D. *New York Iota '12*

Maddie received a two-year $345,000 grant from the RESTORE Act Center of Excellence – The Water Institute. She is an assistant professor and member of the Pontchartrain Institute for Environmental Sciences at the University of New Orleans. Her research focuses on coastal wetlands and leveraging vegetation for climate change mitigation & adaptation. She is a NY Iota Chapter past president.

Jeffrey P. Gold M.D.

New York Delta '74



Jeffrey became the 9th University of Nebraska (NU) System president July 1. A heart surgeon and longtime college administrator, he is the NU system's executive VP and provost. Jeffrey previously served as Univ. of Nebraska Medical Center chancellor, chair of the board of Nebraska Medicine, and as academic & clinical health sciences chancellor at Univ. of Toledo.

Benjamin J. McPheron Ph.D.

Ohio Iota '10

Benjamin has been named assistant dean of Ohio Northern University's College of Engineering. Previously, he was an associate professor of electrical eng'g and chair of the Department of Physical Sciences and Engineering at Anderson Univ. (IN). An Ohio Northern alumnus, he served as OH Iota Chapter recording secretary as an undergrad while pursuing a B.S. degree.

Marc B. Parlange Ph.D.

Rhode Island Beta '90

Marc joined ΤΒΠ as an eminent engineer during the 2024 spring semester at the University of Rhode Island (URI). He became the 12th president at URI in 2021 and is internationally recognized for his expertise in environmental fluid mechanics. Marc earned a B.S. degree in Australia, M.S. and Ph.D. degrees from Cornell, and had been serving as provost and senior VP at Monash University (AU).

Martha E. Pollack Ph.D.

Michigan Gamma '79

Martha retired June 30 as the 14th president of Cornell University, after 7+ years in the role. During her tenure, she oversaw the creation of the school of public policy, expanded Cornell's accessibility, and launched new programs in areas ranging from sustainability and digital agriculture to artificial intelligence. Martha has master's and doctoral degrees in computer science.

FACILITIES: Cal Poly State School Endowment — California Polytechnic State Univ.'s Noyce School of Applied Computing has received a $60 million gift to establish an endowment to fund the school's operations. The interdisciplinary school is the first of its kind, combining three departments — electrical engineering, computer science & software eng'g, and computer engineering — with statistics joining as an affiliate. The endowment will enable administrators to develop state-of-the-art facilities, new research, and co-curricular opportunities. The gift comes from the Robert N. Noyce Trust, which honors the Intel founder and Silicon Valley icon. According to the U.S. Bureau of Labor Statistics, the number of jobs in computing and information technology is expected to grow 15 % from 2021 to 2031.

Modernization of U of M Chemistry Teaching Labs halfway complete — This summer, the University of Minnesota (U of M) College of Science and Engineering secured a lead gift in support of the construction of a new Undergraduate Chemistry Teaching Laboratories building. The construction, currently at the half-way point, includes renovation plans that reimagine a 95-year-old Fraser Hall on the Twin Cities campus into an updated 117,000-square-foot facility with 18 active learning labs, tutoring, student collaboration spaces, and general-purpose classrooms. The gift, made by alumni Françoise deRochefort Thompson and Thomas "Tom" Allen Gregory, will help transform the undergraduate chemistry experience. Plans are for the building to open in time for fall 2025 classes.

Kurt P. Rouser Ph.D. (USAF Ret.)

Ohio Eta '11

Kurt was selected as the 2024 recipient of the Excellence in Research Mentoring Award honoring Oklahoma State University faculty mentors for success and impact in supervising undergraduate research students. An associate professor, he was recognized for his propulsion research innovation and classroom integration. Kurt is OK Gamma Chapter Chief Advisor and 2019 ΤΒΠ Outstanding Advisor.

Justin Schwartz Ph.D.

Illinois Alpha '85

Justin became Chancellor of CU Boulder on July 1. A nuclear engineer, he's been serving as Penn State University's permanent executive vice president and provost and was previously Dean of Penn State's College of Engineering. Justin is a leader in the field of applied superconductivity and a co-founder and CEO of Lupine Materials and Technology Inc., an optical fiber sensors company.

Karen A. Thole Ph.D.

Texas Alpha '91

Karen was named Dean of the University of Michigan's College of Engineering, effective August 1. Most recently, she was a Distinguished Professor and director of the START (Steady Thermal Aero Research Turbine) Lab at Pennsylvania State University. Her academic scholarship focuses on convective heat transfer and she was previously a research engineer at Lawrence Livermore National Laboratory.

TAU BETA PI HEADQUARTERS NEWS

Updates from the Association in Knoxville, Tennessee

RECOGNIZING REBECCA DAVIS

Tau Beta Pi Headquarters will never be the same. On July 31, **Rebecca M. Davis, or "Mom," retired after 35 years of dedicated service to the Association**.

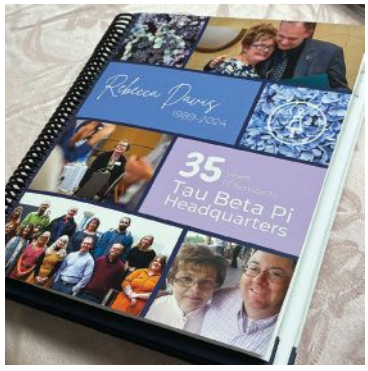
Joining ΤΒΠ in 1989 as a temp, Rebecca became a full-time employee working on chapter reports and correspondence as a collegiate chapter specialist and answering the majority of calls to Headquarters.

After announcing her retirement plans to former chapter officers, HQ was overwhelmed with congratulatory emails and cards, many recalling memories of working with Rebecca.

These messages were printed, placed in a memories book, and presented to Rebecca at her retirement celebration.

Rebecca was a staple at ΤΒΠ Conventions, making stops at each District Meeting to field questions about chapter reporting and other important officer responsibilities.

Most notably, however, was how she treated Tau Bate families as her own. A former elementary school teacher, she was always excited to see pictures of new babies and would even offer to babysit them at Convention.



MEET OUR NEW STAFF MEMBER:

Renea Lewis joined Tau Beta Pi HQ in May as the Marketing & Communications Specialist. She was born and raised in Knoxville, TN, before briefly moving to Maryville to receive her B.A. degree in writing communications and design from Maryville College.

As an undergrad, Renea worked as an Editor for the *Highland Echo* and as the multimedia assistant for the Maryville College Marketing & Communications team, re-launched the Maryville College Pride Club, and wrote a poetry manuscript for her senior thesis.

A member of the ΤΒΠ Marketing & Communications team, she manages social media, generates written material for online presence, press releases and print materials, and designs visual and video content. Renea is also Associate Editor of *The Bulletin*.

In her free time, Renea loves to write poetry, collage or scrapbook, and spend time with her cats.

More information about the TBP HQ staff is available at: www.tbp.org/leadership.cfm

Letters continued from page 5.

Drought and the Reengineering of the American West

I recently re-read Alan Brown's feature article published in the Summer 2023 issue. I had cut it out and saved it because I really enjoyed it and think it may be very helpful to me.

I'm a Georgia Tech class of 1984 graduate, retired, now volunteering as a Commissioner on the City of Las Cruces Utilities Board. Availability of water sources is a huge issue and problem for us.

Philip B. Simpson, *GA Α '84*

Previous Magazine Articles

I recently queried my unreliable computer search engine, COGGLE, for the subject "*The Bent*: Tau Beta Pi," and found a list of feature articles back to about 1996.

I was amazed at the range of technical papers/subjects published. I downloaded a number of articles pertaining to technical subjects of professional interest for future study/analysis.

I am now interested in searching the complete list of features published since the initial issues of *The Bent*. Can you indicate when the earlier papers would be available?

Herbert W. Stoughton, Ph.D., P.E., *MI Γ '73*

****Editor's Note:** Previous features can be found at *www.tbp.org/bent-features*. We are also looking into an efficient way of scanning issues before 1996. Stay tuned.

Mystery Bents

****Editor's Note:** We received interesting feedback and stories related to the articles on the Long Island Bent monument that was mysteriously found in someone's back yard in Shirley, NY. We are glad that it found a new home on the Columbia University campus, thanks to our NY Alpha Chapter.

The editors are excited by the possibility of having a recurring magazine segment that highlights out of the ordinary Bent monument sightings and provides historical context to the Bents found across the country. Readers be on the lookout and share your fun stories and images.

The following are two letters that we received. First, a story of a stolen Bent monument, followed by a unique sighting of an unidentified monument on the side of an abandoned building in Wartrace, Tennessee.

Stolen Bent

I am a charter member of the FL Delta Chapter at the University of Central Florida in Orlando. A year after receiving our charter in 1977, we worked hard to raise the money for our monument. It was mounted in a large boulder and placed in front of the old engineering building, which is now the physics building.

Around 1984, I was in graduate school working on my MSE and had gotten to know the current FL Delta Chapter officers.

Imagine my surprise when the vice president called me to say the monument had been stolen. The thieves hacked it off at the base, which was still embedded in the boulder.

I have often wondered what became of it; probably cut up for scrap, but who knows?

When I saw the Mysterious Bent monument article, I felt obliged to write. Also, I'm happy to report that the FL Delta Chapter did raise the funds to replace it.

Robert E. Cara, *FL Δ '77*

Bent Sighting

In June, **Jeff McGlothin,** *TN A '82*, submitted the photo below of a Bent monument hanging on the side of an abandoned building in Wartrace, TN, and wanted to know if TBP HQ or our readers had any ideas as to why it was located here.

The Bent magazine Letters Policy

The Bent invites letters to the editor addressing topics covered in the magazine. Criticism of Tau Beta Pi and its policies is permitted, but no letters containing potentially libelous statements, profanities, or personal attacks will be printed. All letters must be signed and not exceed 400 words. The editors reserve the right to edit letters for length and clarity and have the final decision to publish any letter. Some letters may appear only online, if there are space limitations. There is no guarantee that all letters received will be published. Ideas or views expressed in this magazine do not necessarily reflect the policies or opinions of the Association.

We appreciate your cooperation and understanding. If you have questions or concerns, please contact us at tbp.media@tbp.org *or call 865/546-4578.*

CHAPTER ETERNAL

Our fellow Tau Bates who are gone, but never forgotten.

The condensed style of these notices is made necessary by the Association's large membership and space limitations in *The Bent*. You may contact the Editor for additional facts (if available) concerning the following deceased members. The assistance of all is earnestly sought in reporting the deaths of Tau Bates, including full name and date of death. You may report the death of a member by sending an email to ***tbp.memberupdate@tbp.org.*** Members that were 100+ years when passing are identified with "***Cent.***"

SIGMA TAU

Cunningham, C.V., September 16, 2019.

ALABAMA

ALPHA AL Α

Scott Jr., Edward Gregg, *'81*, no details.

GAMMA AL Γ

Sheppard, Louis Clarke, *'57*, April 22, 2019.

ARIZONA

ALPHA AZ Α

Zepp, Donald Joseph, *'58*, April 3, 2015.
Means, James A., *'62*, January 29, 2023.

ARKANSAS

ALPHA AR Α

Stice, James Edward, *'49*, July 16, 2022.
McInvale, William Alfred, *'70*, May 31, 2024.

CALIFORNIA

ALPHA CA Α

Keswick, Peter Robert, *'86*, Dec. 11, 2019.

DELTA CA Δ

Hennis, Lee Alan, *'65*, January 21, 2023.

EPSILON CA Ε

Ohgi, Frank, *'60*, May 1, 2024.
Donatelli, Bruce Edmund, *'64*, Feb. 28, 2024.
Mustafa, George Eric, *'94*, no details.

THETA CA Θ

Alexander, Chad Eric, *'77*, May 17, 2024.

PI CA Π

Pearce, Robert Edward, *'76*, Nov. 7, 2023.

COLORADO

ALPHA CO Α

Feik, Calvin John, *'92*, March 25, 2024.

BETA CO Β

Winsand, Amos O., *'52*, Feb. 17, 2024. ***Cent.***
Turner, Paul Crawford, *'63*, no details.

GAMMA CO Γ

Conway, Kent Waldo, *'52*, January 5, 2024.

CONNECTICUT

ALPHA CT Α

Hoffmann, William H., *'50*, April 27, 2024.
Christenberry, William S., *'55*, April 30, 2024.

BETA CT Β

Totire, Daniel Joseph, *'56*, Dec. 27, 2022.
Capitanio, Robert, *'58*, May 8, 2024.
Maino, Aldo G., *'58*, October 22, 2020.

DELAWARE

ALPHA DE Α

Haines, Richard Coleman, *'57*, Nov. 23, 2018.
Corson, Robert L., *'86*, October 25, 2021.

DISTRICT OF COLUMBIA

ALPHA DC Α

Melville, Phillip, *'52*, April 18, 2024.

FLORIDA

ETA FL Η

Alessandro, David R., *'13*, Sept. 19, 2024.

GEORGIA

ALPHA GA Α

Haas, Joseph Marshall, *'48*, July 25, 2023.
McNally, Eugene, *'48*, no details.
Avrett, Eugene Hinton, *'56*, April 5, 2023.
Devane Jr., Richard Walsh, *'56*, May 20, 2023.
Albritton, Daniel Lee, *'58*, April 1, 2023.
Farmer, Bobby Franklin, *'58*, August 12, 2023.
Adams, John William, *'59*, January 22, 2023.
Truly, Richard Harrison, *'59*, Feb. 27, 2024.
Akridge, G. Russell, *'62*, no details.
Barnwell Jr., Grady Glenn, *'62*, no details.
Spivak, Scott Jay, *'85*, August 3, 2005.

ILLINOIS

ALPHA IL Α

Yancik, Joseph John, *'54*, July 28, 2020.
Dudas, Donald Rae, *'57*, August 2, 2020.
Grush, Hubert Lee, *'59*, June 29, 2024.
Wallace, John Robert, *'61*, January 6, 2024.

BETA IL Β

Battaglin, Bernard Henry, *'54*, July 16, 2016.
Yarotsky, Leonard Thomas, *'58*, Sept. 4, 2013.
Goltra, Peter S., *'68*, June 10, 2024.

GAMMA IL Γ

Henze, Edward Durand, *'50*, May 26, 2024.
Pipes Jr., Wesley O., *'59*, May 20, 2013.

DELTA IL Δ

Zeller, Sean Michael, *'92*, June 12, 2024.

INDIANA

ALPHA IN Α

Reynolds, Allan E., *'43*, June 20, 2024. ***Cent.***
Travis, John Charles, *'47*, no details.
Babbitt, John F., *'48*, July 22, 2024. ***Cent.***
Immel, John Edward, *'50*, May 9, 2017.
Graham, James Adair, *'51*, no details.
Kirk, Roy Vernon, *'55*, no details.
Luce, Robert Clarence, *'53*, July 5, 2022.
Monzel, Fred J., *'55*, June 30, 2024.
Murray, Roger Alan, *'55*, May 20, 2024.
Frank, Charles John, *'56*, July 14, 2019.
Trent, Raymond Everett, *'56*, Sept. 22, 2018.
Annable, Welson Grant, *'59*, July 15, 2012.
McKay Jr., Bill Edward, *'64*, no details.
Rodda Jr., Raymond W., *'84*, Sept. 24, 2017.

DELTA IN Δ

Witte Jr., August G., *'66*, June 15, 2024.

IOWA

ALPHA IA Α

Bird, Charles Dean, *'51*, May 13, 2012.
Tierney, Bernard Craig, *'59*, no details.
Thrailkill, Ramon, *'63*, April 20, 2024.
Martinovich, Vera Ann, *'88*, April 17, 2024.

BETA IA Β

Byrd, Larry Wayne, *'76*, May 28, 2024.

KANSAS

ALPHA KS Α

Harris, Gale Ion, *'57*, April 16, 2024.
Wilson, Ronald J., *'59*, July 28, 2024.
Hinton, Robert Allan, *'61*, Sept. 30, 2021.

GAMMA KS Γ

Wagner, Don L., *'61*, no details.

KENTUCKY

ALPHA KY Α

Wood Jr., Leon Rutherford, *'60*, May 3, 2023.
Kuehner, Horst Karl, *'66*, April 15, 2017.
Lentz, Garry Lee, *'84*, December 27, 2023.

BETA KY Β

Rowlett, Brooks Ashley, *'80*, no details.

LOUISIANA

ALPHA LA Α

Luker, James Allison, *'43*, May 19, 2010.
Veron, Wallace Pierre, *'63*, July 31, 2024.
Dardeau, Edward Gaty, *'69*, October 30, 2009.

BETA LA Β

Giesemann, Dennis A., *'73*, March 28, 2024.

GAMMA LA Γ

Watt, Robert Lowell, *'50*, June 26, 2003.
Mercer, Audley Andrew, *'59*, April 18, 2024.

MAINE

ALPHA ME Α

Evenson, Paul Roald, *'85*, no details.

MARYLAND

ALPHA MD Α

Cummins II, Charles Albert, *'52*, May 5, 2024.
Kott, Michael Alexander, *'56*, Dec. 26, 2022.
Bickart, Theodore Albert, *'57*, Oct. 20, 2023.
Cohon, Jared L., *'69*, March 16, 2024.

BETA MD Β

Hurlbrink Jr., Robert W., *'53*, March 19, 2023.
Popenoe, Charles Holcomb, *'57*, Jan. 1, 2024.
Cleaver, Harry Edward, *'61*, August 12, 2016.
Scurlock Jr., Arch Chilton, *'69*, June 15, 2024.

GA
A

Georgia Alpha '59

Vice Adm. Richard H. Truly (USN)

February 27, 2024

He piloted space shuttle mission STS-2, was space shuttle mission STS-8 commander, the first commander of Naval Space Command, and led the Challenger Shuttle investigation.

OH
H

Ohio Eta '62

Maj. Gen. William A. Anders (USAF)

June 7, 2024

Was a member of the Apollo 8 mission and carried a ΤΒΠ engraved Bent charm with him into space, which is now on display at ΤΒΠ HQ. He also took the famous "Earthrise" photo from the Moon's perspective.

MASSACHUSETTS

ALPHA MA Α

Collings, Douglas, *'52*, September 18, 2023.
Storti, George Michael, *'61*, no details.
Light, William Goddard, *'71*, April 8, 2011.
Snow, Sarah Elizabeth, *'01*, July 28, 2024.

BETA MA Β

Hagerman III, Oliver S., *'49*, May 15, 2024.
Michel, Robert Charles, *'50*, March 12, 2022.
Gilfillan Jr., Justus Clyde, *'53*, April 8, 2018.
Vaughen, Victor Cornelius, *'56*, Oct. 6, 2021.
Kedson, Leonard Paul, *'57*, August 29, 2020.
Klafter, Richard David, *'58*, Nov. 11, 2019.
McAuliffe, Robert Denny, *'59*, Sept. 21, 2016.
Hurst Jr., E. Gerald, *'60*, January 15, 2015.
Garvine, Richard William, *'61*, Dec. 10, 2007.
Schad, Stephen A., *'81*, January 11, 2024.

DELTA MA Δ

Dolinsky, Larry Robert, *'57*, July 30, 2022.
Stark, Lucius Dickinson, *'64*, April 28, 2024.

EPSILON MA Ε

Allen Jr., Richard Warren, *'58*, July 14, 2024.
Thomas, Harry J., *'72*, November 28, 2021.

ZETA MA Ζ

Boraski, Nicholas, *'50*, November 7, 2023.
Swana, John Joseph, *'53*, January 7, 2023.
Smith, James MacGregor, *'68*, Feb. 7, 2024.

MICHIGAN

ALPHA MI Α

Turbin, Kenneth LeRoy, *'50*, July 10, 2013.
Witt, Alvin Edward, *'60*, September 14, 2020.
Ferguson, Daniel George, *'61*, April 6, 2024.
Herrick, Robert James, *'68*, Nov. 5, 2022.
Tolly Jr., Robert John, *'75*, July 27, 2007.
Goodrich II, Earl R., *'79*, no details.
Griffin, Albert Walter, *'80*, October 14, 2022.

BETA MI Β

Dykema, Adrian H., *'44*, Dec. 17, 2023. ***Cent.***
Frech, Louis William, *'53*, February 18, 2023.

GAMMA MI Γ

Hull, Frederick Charles, *'37*, Dec. 2, 2021.
McKeachie, Duane Dean, *'47*, Jan. 17, 2021.
Carter, Cecil Vance, *'50*, November 12, 2004.
Zerbel, David William, *'56*, August 1, 2018.
BeMent, Spencer L., *'60*, July 4, 2024.
Mills, David L., *'60*, January 17, 2024.
Erickson, Robert Albert, *'61*, Dec. 15, 2022.
Fox, Charles Thomas, *'61*, June 5, 2022.
Delgass, William Nicholas, *'64*, Aug. 17, 2021.
Guichelaar, Philip John, *'64*, March 3, 2024.

DELTA MI Δ

Frank, John Garwood, *'50*, August 16, 2018.

EPSILON MI Ε

Elkins, James Thomas, *'50*, Dec. 17, 2006.
Datta, Tapan K., *'62*, June 18, 2024.
Sadik, Server, *'66*, September 28, 2022.

ZETA MI Ζ

Chupp, Raymond Edward, *'65*, Jan. 1, 2024.

MINNESOTA

ALPHA MN Α

Glewwe, Carl William, *'50*, August 27, 2023.

MISSISSIPPI

ALPHA MS Α

Daub, James Allen, *'84*, February 1, 2023.

MISSOURI

ALPHA MO Α

Henry, William Robert, *'48*, June 4, 2024.
Janes III, Thomas Andrew, *'60*, Sept. 9, 2019.
Schulze, Mary Catherine, *'84*, April 3, 2004.

BETA MO Β

Walker, James Francis, *'49*, Jan. 16, 2011.
Klobe, Jerry Sanford, *'52*, no details.
Stopkey, Waldemar D., *'52*, April 10, 2018.
Reynolds, Arnold Gene, *'54*, May 12, 2021.
Sucher, Robert W., *'58*, May 9, 2024.
Hall, Johnnie Everett, *'59*, January 11, 2024.
Sherwood, Jesse, *'77*, July 21, 2023.

EPSILON MO Ε

Lyons, Francis T., *'59*, March 10, 2024.

MONTANA

ALPHA MT Α

Beadle, William Edgar, *'54*, Feb. 25, 2023.
Haugen, Floyd Keith, *'58*, May 4, 2020.

NEW HAMPSHIRE ALPHA

ALPHA NH Α

Greene, Prescott, *'57*, July 28, 2023.

NEW JERSEY ALPHA

ALPHA NJ Α

Marston, Charles Harold, *'53*, May 21, 2015.
Cimera, Richard F., *'55*, March 25, 2024.
Denzer Jr., George Charles, *'61*, June 3, 2024.

BETA NJ Β

Emmons Jr., Harry L., *'40*, June 10, 2023. ***Cent.***
Van Benschoten, Charles B., *'48*, May 19, 2024.

GAMMA NJ Γ

Davis, Louise Frederika, *'56*, June 18, 2014.
Geigel, John David, *'78*, October 20, 2022.

NEW YORK ALPHA

ALPHA NY Α

Brower, Allen Spencer, *'48*, July 25, 2024.

BETA NY Β

Heagerty, William Frederick, *'60*, Dec. 4, 2012.
Ely, Wayne Elmer, *'64*, no details.

GAMMA NY Γ

Place, Harry George, *'51*, no details.
Goodwin, Francis Maurice, *'54*, Nov. 12, 2011.
Sneden, George Kenneth, *'55*, Feb. 16, 2013.
Hoppmann, Roger Fred, *'56*, Oct. 31, 2021.
Neumann, Philip Carleton, *'56*, May 11, 2020.
Carter, Charles Mclean, *'57*, Jan. 21, 2023.

DELTA NY Δ

Broadhead, James Lowell, *'58*, April 10, 2024.
Kleckner, Keith Roger, *'58*, June 2, 2024.

EPSILON NY Ε

Beaman, Thomas, *'51*, June 23, 2003.
Sacher, Edward, *'56*, no details.
Weissman, Martin J., *'58*, no details.
Strauss, Philipp Frederick, *'59*, June 27, 2023.

ZETA NY Ζ

Corbin, Richard Morgan, *'57*, Oct. 25, 2016.

ETA NY Η

Stecher, Leonard Seymour, *'44*, no details.
Fischl, Robert, *'56*, February 5, 2018.

IOTA NY Ι

Gister, Kenneth Steven, *'81*, April 8, 2016.

LAMBDA NY Λ

Kern, Peter Leonard, *'62*, February 14, 2024.
Layton, Richard L., *'63*, March 4, 2024.
Fillo, John Paul, *'74*, May 15, 2023.

NU NY Ν

McCullough, Earl Samuel, *'63*, Nov. 21, 2022.

XI NY Ξ

Pizzirani, Arthur Anthony, *'60*, no details.

NORTH CAROLINA

ALPHA NC Α

Newton Jr., James Emerson, *'52*, July 2, 2023.
Woolard Jr., Edgar Smith, *'56*, Dec. 4, 2023.
Thomas Jr., James Elvey, *'59*, July 1, 2024.
Yoder, Paul Eugene, *'60*, October 11, 2022.

GAMMA NC Γ

Montgomery Jr., John W., *'54*, May 2, 2024.
Chambers, William Forrest, *'60*, July 6, 2024.
Chapin, Douglas McCall, *'62*, May 3, 2024.

DELTA NC Δ

Smith, William Alexander, *'61*, Aug. 21, 2021.

NORTH DAKOTA

ALPHA ND Α

Bennett, Paul Alfred, *'49*, February 28, 2012.
Connelly, Donald P., *'64*, September 20, 2023.

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CHAPTER ETERNAL

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OHIO

BETA OH Β

Cody, Robert Marvin, *'53*, October 18, 2018.
Myers, Alan Louis, *'60*, no details.

GAMMA OH Γ

Grandey, Loren F., *'40*, Feb. 5, 2021. ***Cent.***
Jaffe, Leonard, *'48*, July 16, 2020.
Bryan, Willard Colvin, *'52*, November 3, 2017.
Mahaffey, Jack L., *'54*, April 26, 2024.
Bolinger, Phillip Nelson, *'60*, Dec. 22, 2015.

DELTA OH Δ

Cammarano, Mario Vincent, *'54*, May 9, 2014.

ETA OH Η

Anders, William Alison, *'62*, June 7, 2024.

KAPPA OH Κ

Paridon, Charles Albert, *'81*, May 1, 2024.

OKLAHOMA

ALPHA OK Α

England, Marshall Jackson, *'53*, Feb. 26, 2024.
Bertram, Jack S., *'54*, February 17, 2024.
Cain, Victor Ralph, *'56*, April 14, 2024.
Womack, Alfred Larry, *'84*, March 29, 2024.

OREGON

ALPHA OR Α

Marsa, Arnold Ray, *'49*, January 25, 2024.
Hook Jr., William Charles, *'59*, no details.

PENNSYLVANIA

ALPHA PA Α

Breingan, William David, *'51*, April 6, 2023.
Donecker, Robert Richard, *'54*, Oct. 23, 2020.
Boyle, John Peter, *'56*, September 29, 2017.
Haughwout, Richard J., *'56*, March 20, 2022.
Rogers Jr., Alfred, *'58*, July 15, 2017.
Weiss, William Lewis, *'58*, October 21, 2020.
Sobyak, Francis Joseph, *'59*, August 20, 2021.

BETA PA Β

Berish, James Orion, *'55*, Dec. 13, 2019.
Scott, Phillips Brooks, *'55*, April 20, 2012.
Gongloff, Harold R., *'56*, May 19, 2016.
Weber, John W., *'56*, no details.
Mathew, Lloyd James, *'57*, March 14, 2018.
Jacisin, Joseph Michael, *'59*, no details.
Ripsom Sr., George A., *'60*, April 13, 2024.
Bridge, David Lee, *'71*, April 26, 2024.

GAMMA PA Γ

Pierce, Russell Dale, *'60*, November 9, 2019.

DELTA PA Δ

Bordogna, Joseph R., *'55*, Nov. 25, 2019.
Holzman, Louis Nathan, *'57*, May 7, 2016.
Korn, Walter, *'57*, June 19, 2024.
Weisman, Sheldon, *'58*, February 8, 2024.
Landis, John Grube, *'65*, April 17, 2024.

EPSILON PA Ε

Schroeder, Karl Richard, *'49*, Dec. 7, 2023.
Murgas, William Joseph, *'53*, Dec. 12, 2023.
Cornelius, Donald J., *'54*, March 11, 2023.
Hayden, Joseph Harley, *'55*, no details.
Shotwell Jr., Fred Calvin, *'57*, June 1, 2023.

ZETA PA Ζ

Goudie, Richard Warren, *'51*, May 9, 2007.
Dobren, Stanley, *'53*, November 18, 2022.
Schmidt, George Adam, *'53*, Dec. 12, 2022.
Bross, Andrejs, *'54*, December 17, 2020.
Condodina, Arthur Gus, *'55*, June 14, 2017.
Kleponis, Walter Joseph, *'55*, Nov. 21, 2021.
Pendred, Charles Richard, *'55*, April 25, 2014.
Cigan, John Michael, *'56*, January 10, 2021.
Mullin Jr., Joseph Vincent, *'56*, Nov. 23, 2023.
Reynik, Robert John, *'56*, March 1, 2022.
Bogdan, William Richard, *'57*, Sept. 5, 2018.
Kieser, Donald John, *'57*, December 8, 2019.
Gould, Lawrence, *'58*, April 9, 2023.
Iatesta, Robert, *'58*, January 3, 2023.
Ottinger, Robert Walter, *'58*, February 8, 2021.
Wesley, Kurt, *'58*, May 19, 2017.
Brown, Harry Liber, *'59*, January 14, 1999.
Dimeo, Frank N., *'59*, February 19, 2022.
Bisbing, Robert Henry, *'60*, May 8, 2017.
Fickeissen Jr., Karl O.E., *'71*, March 31, 2022.
Varhola, Dennis W., *'71*, April 2, 2013.

ETA PA Η

Murray, Lester Larue, *'50*, July 13, 2024.
Cooper, Robert Hewitt, *'53*, July 16, 2024.
Reiner, Robert Elmer, *'64*, June 1, 2024.

THETA PA Θ

Brown, John Kane, *'49*, no details.
Rajagopal, H. Y., *'57*, April 2, 2018.
D'Arcy, James Andrew, *'59*, February 21, 2019.
McLane, George Francis, *'60*, Jan. 15, 2016.
Sheppard Jr., Albert, *'60*, no details.
Siegfeldt, Harry Joseph, *'60*, April 6, 2014.
Richardson, Cecil Sloane, *'61*, July 15, 2022.

IOTA PA Ι

Bingaman, William Thomas, *'56*, Feb. 8, 2022.

LAMBDA PA Λ

Lovell, Michael Rhodes, *'89*, June 9, 2024.

RHODE ISLAND

ALPHA RI Α

Cronson, Harry Marvin, *'59*, Sept. 14, 2022.

BETA RI Β

Caddell Jr., Robert C., *'48*, May 7, 2010.
Toy Jr., Paul Charles, *'70*, Sept. 24, 2023.
Wilson, John C., *'75*, August 1, 2024.

SOUTH CAROLINA

ALPHA SC Α

Rivers Jr., Henry Fowles, *'48*, Feb. 6, 2019.
Townsend, George E., *'56*, July 29, 2023.

BETA SC Β

Hussey Sr., Charles Thomas, *'66*, July 4, 2024.

GAMMA SC Γ

Johnston, Frank Davis, *'55*, Dec. 18, 2022.

SOUTH DAKOTA

ALPHA SD Α

Graham, Keith Douglas, *'51*, Feb. 19, 2022.
O'Clock Jr., George Daniel, *'62*, Oct. 12, 2020.
West, Robert D., *'75*, September 20, 2022.
Rafter, Paul J., *'80*, June 29, 2020.
Van Sickle, Carol Susan, *'80*, Dec. 5, 2020.
Clark, Paul Quentin, *'86*, May 7, 2020.
Glover, Brian Bruce, *'04*, October 30, 2019.

TENNESSEE

ALPHA TN Α

Woodward, John Mavry, *'60*, April 20, 2023.
Lewis, Ronald Sloan, *'70*, April 23, 2023.
Schariter, Joseph Allen, *'75*, April 17, 2024.

GAMMA TN Γ

Lovell, James Ronald, *'73*, June 28, 2024.

TEXAS

ALPHA TX Α

Aubel, Henry Thomas, *'42*, February 11, 2002.
Levander, Carl Theodore, *'56*, Oct. 10, 2023.
Silman, Robert Warren, *'60*, March 29, 2016.
Crozier, Bonnie Sue, *'79*, January 20, 2024.

DELTA TX Δ

Sharp Jr., Allen Clemmons, *'55*, Nov. 18, 2010.
Jones, Jerrel B., *'58*, July 22, 2024.

UTAH

ALPHA UT Α

Spong, Robert Neil, *'58*, January 11, 2024.
Ishida, Masato, *'73*, no details.

VIRGINIA

ALPHA VA Α

Lewis, David Warren, *'52*, February 1, 2024.

BETA VA Β

Mayer, David Stephen, *'49*, June 3, 2018.
Woerner, Charles V., *'60*, June 10, 2024.
Conway, Bruce Alling, *'65*, August 7, 2024.
Ammons, Donald Everett, *'66*, Oct. 1, 2023.

GAMMA VA Γ

McDonough, John Brendan, *'98*, July 23, 2015.

WASHINGTON

ALPHA WA Α

Bowes, Gerald Marshall, *'42*, Sept. 30, 2018.
Petersen, Donald Eugene, *'46*, April 24, 2024.

BETA WA Β

Wilson, Glen Bayha, *'39*, February 2, 2009.

WEST VIRGINIA

ALPHA WV Α

Rosenlieb, John William, *'58*, April 17, 2020.
Price, David Austin, *'70*, February 29, 2024.

WISCONSIN

ALPHA WI Α

Wilder, Harry Douglas, *'55*, August 28, 2020.
Martinson, Lloyd William, *'57*, Sept. 17, 2019.
Ziegenhagen, Allyn James, *'57*, Nov. 14, 2023.

BETA WI Β

Mathers Jr., Lewis John, *'57*, May 7, 2019.
Pittenger, Lee C., *'59*, April 30, 2024.

GAMMA WI Γ

Dretzka, Matthew James, *'84*, May 19, 2019.

WYOMING

ALPHA WY Α

Witham, Melvin Warren, *'48*, August 9, 2015.

TAU BETA PI LAUNCHES NEW MEMBER BENEFITS

AMBITION IN MOTION

Introducing Tau Beta Pi's newest benefit to members: a mentorship program administered through Ambition in Motion. In response to interest from both students and alumni, the Association is implementing a program to connect students and alumni with each other for professional guidance.

The mentors will be Tau Beta Pi alumni interested in volunteer experience while paying it forward to members seeking to gain career advice and help navigating through their professional lives. TBΠ students and alumni are both eligible to be mentees through a **collegiate program** to help prepare current students for life after college and an **alumni program** to help professionals in their careers.

The next program begins September 24, 2024. Register here: ***https://ambition-in-motion.com/signup/tbp***

The program will:

1. Pair Tau Beta Pi students seeking to establish their career path and direction with alumni mentors.
2. Provide alumni with a meaningful volunteer opportunity as a mentor.
3. Offer alumni the opportunity as mentees to benefit from the experience of their peers in search of transitioning careers, obtaining a graduate degree, or exploring additional professional options.
4. Utilize a Mentor and Mentee assessment questionnaire with use of a matching algorithm to identify compatible mentee-mentor matches to facilitate pairing.
5. Offer online workshops to help mentees and mentors prepare for the mentorship.

Contact Pat McDaniel at *p.mcdaniel@tbp.org* with any questions.

HP.com Association Member Store

WELCOME

We are excited to announce HP's new partnership with Tau Beta Pi. You now have access to a private store built for members, where we provide exclusive discounts on HP equipment. From back to school building to building your business, HP is here to save you money and provide a world class shopping experience. Get started now at: ***www.tbp.org/hp-request.cfm***

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ASSOCIATION BRIEFS

An ONCAC dinner cruise in Cleveland, OH, on Two Pi Day.

Dudley White (left) and Mike Navolio atop Mt. Kilimanjaro with TBP banner made especially for this occasion.

ALUMNI ACTIVITY:

OHIO NORTH COAST ALUMNI CHAPTER

On June 28 (6.28), the Ohio North Coast Alumni Chapter (ONCAC) organized a dinner cruise in celebration of Two Pi Day (or Tau Day).

About two dozen recent graduates and alumni enjoyed socializing in the beautiful weather and taking in Cleveland skyline views.

ΤΒΠ Officials Curt Gomulinski (Executive Director), Tricia Gomulinski (Director of Alumni Affairs), and Michael Ustes (District 7 Director) joined as special guests.

Thanks to **Shelton D. Caruthers,** *LA G '89*, ONCAC president for sharing the details and photo above.

If you are interested in learning more about the Ohio North Coast Alumni Chapter, send an email to: *oncac.tbp@gmail.com*

KILIMANJARO CLEAN WATER CLIMB

Dudley White, *VA A '76*, and **Mike Navolio Jr.,** *CA A '73*, recently summited Kilimanjaro as part of an annual "prairie, peak, and purpose" Clean Water Climb fundraising trip to bring clean water to Malawi, Africa.

During the three-part adventure, they embarked on an animal photo safari, completed an eight-day climb up and down Mt. Kilimanjaro, the highest mountain on the African continent (19,341'), and repaired broken water wells.

The reason for the trek was to raise money in support of rural Malawi. Founded in 2011 for Child Legacy International, the Clean Water Climb has brought water to more than 3,800 rural Malawian villages, schools, trading centers, medical clinics, mosques, and churches. For more information on the Kilimanjaro (and other) Clean Water Climb events, check out: *https://cleanwaterclimb.org*

TBP.ORG/STORE

THE ***ONLY*** PLACE ON EARTH TO GET YOUR TAU BETA PI GEAR!

NEW
Women's Charcoal T-Shirt

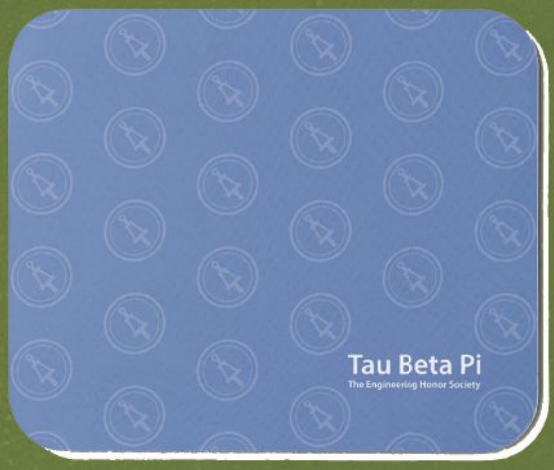
BELLA+CANVAS Women's Relaxed Triblend V-Neck shirt with adapted logo design from 2023 contest 2nd place winner Trevor S. Dady, *AR B '24*. Sizes S to XXX-L. **Starting at $23**

NEW
Black and Grey Hoodies

Gildan 50/50 pre-shrunk cotton/polyester with double-lined hood and pouch pocket. Featuring new gold flake design. Sizes S to XX-L. **Starting at $35**

NEW Unisex
Black and Sports Grey T-Shirts

New design on front with adaptation of the classic ΤΒΠ bent on the back. These Gildan t-shirts are 90/10 cotton/polyester. Sizes S to XXX-L. **Starting at $18**



NEW Tau Beta Pi Logo
Mouse Pad

The ΤΒΠ mouse pad is here by popular demand and with a new design that is a perfect addition to any workspace. The dimensions are 8" x 7.5". **$8**

from page 25

Fall Problems *Continued*

5: Brickler Lane

Gary, Howard, and Don live in three different houses (between numbers 13 and 99 inclusive) on Brickler Lane. Bill is an old friend who is staying with Gary.

Gary, Don, and Bill do not know the number of Howard's house, but all four of them know the numbers of Gary's and Don's. Don lives in number 49. The number of Gary's house is odd, and is less than that of Don's.

Gary asks Howard the following questions about the number of his house:

1. Is the number of your house bigger than that of mine?

2. Is it bigger than that of Don's?

3. Is it a perfect square?

4. Is it divisible by 3?

Don and Bill also hear these questions and the answers which Howard gives.

Gary thinks that Howard's answers are all true. Whatever Don thinks is true in Howard's answers, Bill thinks is false, and vice versa. Bill thinks that only Howard's second answer is true. Howard's answers are in fact alternately "Yes" and "No," but you are not told which comes first.

After a pause for thought Gary, Don, and Bill all say that they know the number of Howard's house, but when asked what it is their answers are all wrong.

Jim, who has been listening, does not live on Brickler Lane. He is informed by Howard that only two of his answers are true, and Howard tells him which. Jim, who already knows the numbers of Gary's and Don's houses is then able to announce the number of Howard's house correctly.

What are the numbers of Gary's and Howard's houses? What were the incorrect numbers of Howard's house given by Gary, Don, and Bill?

—101 Brain Puzzlers
by E.R. Emmet

BONUS: The Box Office

N plus M Tau Bates ($N \geq M$) are waiting in line at a box office to see *Bentspedition: The Movie*. N of them each have a single $10 bill in their wallet and the other M each carry a lone $20 bill. Tickets cost $10 each. When the box office opens, there is no money in the till. If each customer buys only one ticket, what is the probability that no one will have to wait for change? What if there are initially T $10 bills in the till, for $T < M$?

—Challenging Mathematical Problems with Elementary Solutions
by A.M. & I.M. Yaglom

COMPUTER BONUS: Make This Add Up

Solve the following cryptic addition in the bases that makes the alpha-numeric equation correct.

THREE + SEVEN + NINE = TWELVE

where THREE is divisible by 3, SEVEN is divisible by 7, and NINE is divisible by 9. Find a solution in base 10, and then a second solution in a base greater than 10.

Standard rules apply: each different letter represents a different "digit," but the same letter always represents the same "digit." There are no leading zeros.

Use the letters a, b, c, d, ... to represent the "digits" 10, 11, 12, 13, ...

—Madachy's Mathematical Recreations by Joseph S. Madachy

Email your answers (plain text only) to any or all of the Fall Brain Ticklers to *BrainTicklers@tbp.org* or by postal mail to **Dylan Lane, Tau Beta Pi, P.O. Box 2697, Knoxville, TN 37901-2697**. The method of solution is not necessary. The Computer Bonus is not graded. Where possible, exact answers are preferable to approximations. The cutoff date for entries to the Fall column is the appearance of the Winter *Bent* which typically arrives in early January (the digital distribution is several days earlier). We welcome any interesting problems that might be suitable for the column. Dylan will forward your entries to the judges who are:

F.J. Tydeman, *CA Δ '73,*
J.R. Stribling, *CA A '92,*
K.D. Berthold, *TX B '04,*
and the columnist for this issue,

— **J.C. Rasbold,** *OH A '83*

In Memory of

Robert N. Spong, *UT A '58*, who passed away January 11, 2024, at the age of 87.

The Association received a touching letter from Robert's son Michael, who had this to say about his father:

"He was a long-time, enthusiastic practitioner of solving TBΠ Brain Tickler (BT) problems, spanning back to 2001. On the day he died, I found BT solutions on his desk in an addressed and stamped envelope, ready to be sent.

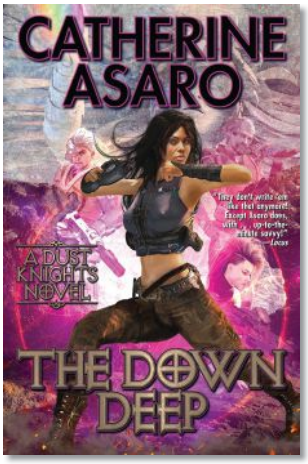
He was very proud to see a problem of his featured as a Bonus question in the Winter 2024 issue BTs column.

He would often share the results of his efforts and gleefully tell everyone that he was in the perfect column and therefore perfect. I tracked his performance in a spreadsheet and at the end of 2023, he was the sixth best (of 794 people) at getting the bonus questions right."

On behalf of the Association and BT judges, we offer our sincere condolences to the Spong family and will truly miss interacting with Robert.

Authors

Recently published a book? If so, we would like to recognize you! Send details and a cover image to d.lane@tbp.org. Note: Due to the popularity of this section, submissions are first come, first served, as room allows. Thanks!



Catherine A. Asaro, Ph.D.
California Epsilon '78

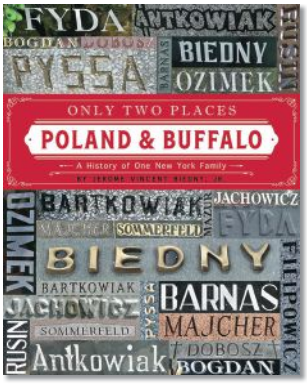
The Down Deep

Her latest novel, a new series in the Skolian Empire, is published by Baen, distributed by Simon and Schuster, and was released July 2024 in hardcover, ebook, and audio formats. Catherine has authored 41+ works of science fiction, fantasy, and thrillers, is past president of the Science Fiction and Fantasy Writers Association, and a two-time Nebula® Award recipient. She earned a Ph.D. in chemical physics from Harvard University.

John W. Maly, J.D.
New York Beta '99

Juris Ex Machina

John's debut novel is a sci-fi legal thriller threaded with tidbits of legal processes from some of the stranger human systems of justice in recorded history. A patent strategist, he has worked in computer technology litigation for over a decade, graduated from Stanford University's Creative Writing program, has B.S. degrees in computer engineering and psychology from Syracuse Univ., and an M.S. in computer science from Stanford.



Jerome V. Biedny Jr.
Pennsylvania Beta '87

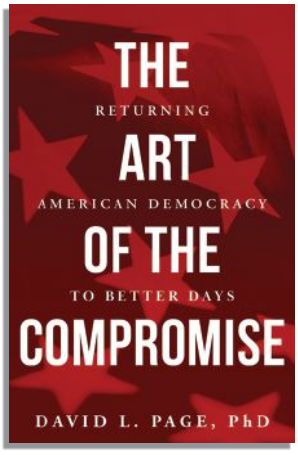
Only Two Places: Poland and Buffalo: A History of One New York Family

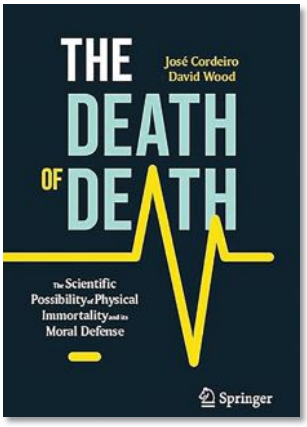
Jerome's newest title is not just a family genealogy, but a historical review of Poland and the city of Buffalo, NY. He has 40 years of research in America and Poland, is an active member of the Polish Genealogical Society, and works as a capital projects manager with Dakota County (MN). The stories are his own, but reflect the massive immigration wave of the 1880s, during WWI.

David L. Page, Ph.D.
Tennessee Gamma '93

The Art of the Compromise: Returning American Democracy to Better Days

In present political turmoil, David's first attempt at non-fiction sets a journey to help move America back onto a path of — not necessarily greatness but — goodness. As a research engineer and amateur political junky, he's been active in politics, volunteering in campaigns since the age of ten. In this book, David explains that our democracy is not broken, but must reject the Art of the Deal and reclaim the Art of the Compromise.





José L. Cordeiro, Ph.D., MBA
Massachusetts Beta '84

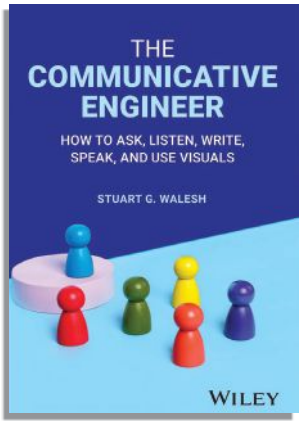
The Death of Death: The Scientific Possibility of Physical Immortality and its Moral Defense

In this bestselling longevity book, José and his co-author explore the incontrovertible fact that death is no longer an absolute certainty – science & technology are preparing to tear down the final frontier: immortality. An intl. Fellow of the World Academy of Art & Science, he's also vice-chair of HumanityPlus, director of The Millennium Project, and has two MIT eng'g degrees.

Stuart G. Walesh, Ph.D., P.E.
Indiana Delta '63

The Communicative Engineer: How to Ask, Listen, Write, Speak, and Use Visuals

A Wiley publication, this application-oriented communication book is designed primarily for engineering students. It focuses on the powerful forms of communication — asking, listening, writing, speaking, and using visuals. Stu has 5+ decades of engineering, education, and management experience, with a technical specialty in water resource eng'g, and has authored eight books.



Executive Council MEETING MINUTES

Summaries from Executive Council (EC) Meetings — January 2023 through May 2023.

January 7-8, 2023
Orlando, Florida

Reports of Officers and Officials

President R. Alexander discussed recent performance and encouraged the Councillors to focus on team building, meeting effectiveness, and strategic planning for the Association.

Special Orders

- Strategic Planning Activities
  - The Council identified three strategic areas for focus moving forward and Councillors will work with Association Officials, HQ staff, and other stakeholders to identify appropriate goals for each strategic area.

Secretary M. Peterson discussed his proposal for the Council to track open action items leading up to and at its meetings and reviewed open action items and assigned respective owners.

Unfinished Business & General Orders

- District Conference Presentation: Mr. Peterson is preparing the Council's presentation for the 2023 District Conferences and will send to Director of Member Services Alex Cross for comment collection.
- Committee Implementation Task Force: Councillor Dr. M. Youssef moved to create a Committee Implementation Task Force with Treasurer M. Hand as Chair and Dr. Youssef as a member to establish a charter; the Council approved.
- Establish the Fue Scholarship Fund: Dr. Youssef moved to establish the Harold C. Fue Scholarship Fund per the fund description and to award the first Fue Scholarship in 2023; the Council approved.

New Business

- Committee appointments were postponed to a future meeting.
- The Council revised and approved its proposed 2023 meeting schedule.
- June 2023 meeting options were considered and Executive Director C. Gomulinski reviewed options for an in-person Council meeting in June with an accompanying Association Officials June Meeting. Councillor G. Youssef moved to allow Mr. Gomulinski to work with Conference Direct to identify a location for a June Council and Officials meeting and to provide a status report at the February EC meeting; the Council approved the plan on a voice vote.
- Consider covering initiation attendance expenses by Executive Councillors. Mr. Gomulinski recommended that the Council review how to handle costs for Councillors to attend initiations; the Council committed the issue to the Governance Committee.
- Consider raising the mileage reimbursement rate. Dr. Youssef moved to commit the issue to the Finance Committee and the Council approved on a voice vote.

District Program: The following appointments were approved:

- Appoint **Michael Ustes**, *MI I '23*, as a D7 Director to a term of 2/1/23 to 6/30/25;
- Appoint **Joseph P. Zipperer,** *AL A '92*, as a D14 Director to a term of 2/1/23 to 6/30/25;
- Award **Michael J. Hand III,** *MI G '11*, a Distinguished Service Award for 6 years of service as a D7 Director.

Engineering Futures Reappointments:

- Reappoint **Chetan G. Date,** *AZ B '84*, as an EFF to a term of 7/1/21 to 6/30/24;
- Reappoint **Angadbir S. Sabherwal,** *IA A '16*, as an EFF to a term of 7/1/21 to 6/30/24.

Chapters:

- Approve a petition to formally establish the "Southwest Florida Alumni Chapter" for a two-year provisional period.

BoardSource Survey Results:

- Mr. Peterson presented an overview of the survey results; the Council will discuss the findings further in the future.

February 14, 2023
Virtual

The Council approved the following appointments:

- Appoint **Sandhiya Kannan,** *NY O '17*, to the Alumnus Recognition Selection Subcommittee to a term of 4/1/23 to 6/30/25; Sandhiya will also serve as the 2025 Chair.
- Appoint **Tonya J. Whitehead,** *MI E '17*, to the Laureate Recognition Selection Subcommittee to a term of 4/1/23 to 6/30/25; Tonya will also serve as the 2024 Chair.
- Appoint **Monica M. Burdick,** *NY K '98*, to the Advisor Recognition Subcommittee to a term of 4/1/23 to 6/30/25; Monica will also serve as the 2024 Chair.
- Appoint **Christopher W. Potts,** *CA U '16*, as the NEST Program Lead to a term of 2/1/23 to 1/31/24.

Chapters

The Council approved a petition to formally establish the "Charlotte Alumni Chapter" for a two-year provisional period.

Report of Officers and Officials

- Secretary M. Peterson reviewed open action items and assigned owners to items due through March.
- Executive Director C. Gomulinski made his full report available for the Council detailing installations, the recent flood at HQ, updates to the ritual, and the recent email outage that affected all ΤΒΠ emails.

Report of Boards, Committees, and Task Forces

- Councillor MingDe Lin provided the DEI Committee's report to the Council.
- Treasurer M. Hand sent a draft of the Task Force Charter to Alex Cross for the governance review cycle.
- The Council approved the 2023 committee assignments.

Unfinished Business and General Orders

- A proposal for an Awards Committee was presented and Vice President R. Hickling provided his preliminary thoughts on consolidating various recognition efforts into an Awards Committee. A charter will need to be drafted and Mr. Hand noted the effort should coordinate with the committee task force for the process.
- Mr. Peterson reviewed the proposed presentation for the District Conferences and will integrate comments from the feedback period and make a final version available for the Council.

March 21, 2023
Virtual

The Council approved updates to assignments of the Executive Council representatives for upcoming District meetings, and also made appointments to the Convention Program Planning Committee.

Reports of Officers and Officials

- President R. Alexander reported on the Lipscomb University Installation, the expectation that committees and task forces report out to the April 11 EC meeting, and provided the deadline for agenda topics for upcoming Executive Council meetings.
- Secretary M. Peterson reviewed the annual calendar action items.
- Executive Director C. Gomulinski made his full report available for the Council.

Special Orders

- Treasurer M. Hand moved to approve the three- year contract from LBMC to serve as TBIT's auditor and the Council approved on a voice vote.
- Dr. M. Youssef moved that the deadline for the ratification ballot for Constitution amendments, approved by the 2022 Convention be extended to June 1, 2023, and that all votes received by June 1, 2023, be considered as though they were received by April 1, 2023. The Council approved on a voice vote.

New Business

- Mr. Peterson provided an update regarding the District Program; the Council will discuss further in April.
- Mr. Gomulinski provided an overview regarding the confidentiality status of the Tau Beta Pi motto.

April 11, 2023
Virtual

Reports of Officers and Officials

The Council received the following reports: Convention Program Planning Committee, Finance Committee, Governance Committee, Program Support Committee, and Strategic Plan Subteams.

Unfinished Business & General Orders

- Secretary M. Peterson reviewed open action items with the Council.
- Vice President R. Hickling moved to amend PF 02 Gift Acceptance to strike any reference to Charitable Gift Annuities, and the Council approved on a voice vote.

New Business

- Treasurer M. Hand moved to authorize an inspection of Fairfield University and the Council approved on a voice vote.
- Mr. Peterson provided an update regarding the District Director Program.
- Executive Director C. Gomulinski addressed questions from his report; he also noted the EC nomination deadline is July 1, and that planning for the June Meeting is underway.

May 9, 2023
Virtual

Appointments:

- The Chapter Development Committee appointed **Ilse G. Perez Garcia,** *TX N '21*, to a term of 7/01/23 to 6/30/26.
- The Image and Marketing Committee appointed **Russell W. Pierce,** *WA A '70*, to a term of 1/01/23 to 12/30/23.

Unfinished Business and General Orders:

- Secretary M. Peterson reviewed open action items for the EC in *Monday.com* and made updates based on EC input.
- Mr. Peterson reviewed the proposed action items to address low scoring items in the BoardSource survey from March 2022, and the EC discussed potential items to focus on.
- President R. Alexander discussed the June Meeting attendance and schedule and checked with the EC members as to their availability for Friday, June 9, and Saturday, June 10.

New Business

- Ms. Alexander noted that some committees are having challenges with achieving quorums to allow for making decisions in meetings. To address this, Ms. Alexander is proposing action items which were reviewed during the meeting. The next steps will be to find an appropriate policy or procedure for these recommendations.
- Treasurer M. Hand reviewed two proposed items for the Finance Committee at the 2023 Convention:
  - Address an inadvertent error by the 2022 Convention Finance Committee regarding a reference to an incorrect source and also set an amount for the tangible benefits of membership which can be adjusted based on actual costs.
  - Make potential updates to the reimbursement policy. Mr. Hand requested the EC to review these documents and provide feedback so he can incorporate those updates into a proposed policy for the June Meeting.
- Mr. Peterson moved that **Scott W. Schmucker,** *OH A '04*, be appointed as a D13 Director and the motion was seconded and approved.

TBP HEADQUARTERS VISITORS

Alex H. Meyers, *KY A '24*
Louisville, KY; Sept. 29, 2022

Carl J. Kirpes, Ph.D., P.E., *IA A '12*
Marion, IA; Sept. 29, 2022

Michael C. Munsey, *MA Δ '89*
Milton, MA; Sept. 29, 2022

Hemanth Aroumougam, *IN A '21*
Ann Arbor, MI; Sept. 29, 2022

Kara L. Combs, *OH M '21*
Englewood, OH; Sept. 29, 2022

Michael W. Griffis, Ph.D., *FL A '85*
High Springs, FL; Sept. 29, 2022

Lauren H. Logan, Ph.D., *OH Δ '10*
Findlay, OH; Sept. 29, 2022

Bakhtier Farouk, Ph.D., *DE A '81*
Philadelphia, PA; Sept. 29, 2022

Sue L.R. Holl, Ph.D., *CA Λ '76*
Carmichael, CA; Sept. 29, 2022

Steven R. Harper, Ph.D., *IL A '06*
Harrisonburg, VA; Sept. 29, 2022

Chetan G. Date, Ph.D., P.E., *AZ B '84*
Tempe, AZ; Sept. 29, 2022

Leah B. Hill, *OH M '10*
Kettering, OH; Sept. 29, 2022

ALUMNI NOTES

Your fellow Tau Bates are interested in news about **you**.

ALABAMA EPSILON '06

Dee Anne Odom P.E.

Dee Anne recently began a new position as general manager of power delivery operations and interconnections at Alabama Power Company, where she has worked since 2014. She served as a ΤΒΠ District 6 Director from 2006-15, and earned a B.S. degree in electrical eng'g from the Univ. of South Alabama.

CALIFORNIA UPSILON '13

Christine Rice P.E.

Christine was a contestant on season 3, episode 19 of *Weakest Link*, which aired on June 3. A project engineer with Wood Rogers, Inc., she ended up winning $51,000 as the last contestant standing. A civil engineer, Christine was also a guest on the ASCE Plot Points Podcast discussing the experience.

ILLINOIS BETA '66

Gerald C. Gruenbaum

Gerald is a volunteer instructor of computer skills for OASIS Corrections and has been recognized for his 40+ years with Motorola, Inc., serving as a purchasing manager and global sourcing engineer before his retirement. He has B.S. and M.S. degrees in electrical engineering and an MBA.

IOWA ALPHA '18

Amy Kurr

Amy received the 2024 Gene Mitchell Gray Pioneer Award for promoting cultural diversity and enrichment on the campus of the Univ. of Tennessee, where she is pursuing an energy science & eng'g Ph.D. A 2018 ΤΒΠ Laureate, Amy plans to work in failure analysis engineering after graduation.

LOUISIANA BETA '65

Donald R. Schlater P.E.

Donald was presented the Society for Petroleum Engineers Legion of Honor Award to recognize 50 years of service to the industry. He's worked in all phases of the energy business and developed numerous training courses. Donald was active in the development of international and U.S. industry standards and has mechanical eng'g degrees from Tulane.

LOUISIANA GAMMA '61

J. Derald Morgan Ph.D., P.E.

Derald was inducted into the Missouri Society of Professionals Hall of Fame for his contributions to the Boy Scouts of America, to other civic organizations, and to educational institutions. He previously served as New Mexico State University Dean of Engineering and as head of the EE Department at Missouri S&T.

MARYLAND ALPHA '20

Shubhayu Bhattacharyay Ph.D.

Shubhayu, born in India, was awarded a Paul and Daisy Soros Fellowship for New Americans. A recent Ph.D. graduate from the Univ. of Cambridge in clinical neurosciences, he will next pursue an M.D. at Harvard Medical School. The Soros are highly competitive fellowships honoring contributions of immigrants and their children.

MARYLAND ALPHA '22

Min Jae Kim P.E.

Min Jae is a 2024 recipient of the Paul and Daisy Soros Fellowship for New Americans. He immigrated from Korea to Fairfax, VA, completed his undergraduate education in biomedical engineering and neuroscience, and is pursuing M.D./Ph.D. training at the Univ. of Pennsylvania. Min Jae holds a patent as lead inventor in epilepsy research.

MINNESOTA BETA '16

April L. Wellman P.E.

April was hired this summer to serve as the next Faribault County (MN) Engineer & Public Works Director. She previously worked at Krech Ojard & Associates, Inc. for nearly nine years in structural services. She earned a bachelor's degree in civil engineering from the University of Minnesota Duluth.

NEW YORK KAPPA '96

Richard R. Andre C.S.P.

Rich is now pastor of Old St. Mary's Catholic Church, the oldest and most diverse parish in Chicago, IL. As a former Engineering Futures Facilitator (1998-2005), he is always happy to reconnect with friends from Tau Beta Pi. "I know it can be hard to keep track of my frequent moves with the Paulist Fathers, but please look me up!"

Send news about promotions, honors, civic activities, weddings, etc. to Tau Beta Pi, P.O. Box 2697, Knoxville, TN 37901-2697 or to tbp.media@tbp.org. Deadlines: November 1 for **Winter** issue and February 1 for **Spring** issue. Include head shot, name, address, chapter/class year, and email address or phone number. We cannot accept graduation announcements. Thank you!

OHIO ETA '04

Philip A. Garrant USSF

Philip, a Lieutenant General for Space Systems Command at Los Angeles Air Force Base (CA), is responsible for more than 15,000 military, civilian, and contractor personnel worldwide. He previously served as the Deputy Chief of Space Operations and has a master's degree in systems eng'g from AFIT.

OREGON GAMMA '23

Dagny J. Battaglino

Dagny recently began working as a civil engineering analyst at Kimley-Horn. She graduated as valedictorian from the University of Portland with a B.S. degree in civil engineering and earned the Donald P. Shiley School of Engineering Dean's Award. Dagny previously served as an OR Gamma Chapter vice president.

TENNESSEE BETA '13

Curtis G. Northcutt Ph.D.

Curtis is CEO & co-founder of Cleanlab, which develops technologies that ensure the reliability and accuracy of data used in AI models. He was recently recognized as one of the Top 20 CEOs of early-stage AI startups by AIM Americas and cited for his research leading to pioneering solutions crucial for effective AI applications.

VIRGINIA BETA '81

Mary C. Boyce Ph.D.

Mary is the 2024 Sigma Xi Monie A. Ferst Award recipient for "notable contributions to the motivation and encouragement of research through education." She is a professor of mechanical eng'g, Provost Emerita, and Dean Emerita of the School of Engineering and Applied Science at Columbia University.

MARYLAND ALPHA

A team of four engineering students at Johns Hopkins University (JHU) were challenged for their senior design project to take a leaf blower and make it quiet. They did it!

According to reports, their improved leaf blower drops the overall noise level by nearly 40 percent while almost entirely erasing the most obnoxious frequencies. The design is patent-pending and Stanley Black & Decker expects to be selling them in two years.

Beginning work in September 2023, they spent months figuring out the leaf blower piece by piece, analyzing all of its noises, and why it made them.

The JHU engineering team posing with leaf blowers. From left to right: Michael Chacon, Madison Morrison, Andrew Palacio, and Leen Alfaoury.

"The sound that comes out of this leaf blower is very complicated and it contains a lot of different frequencies," said team member and recent mechanical engineering graduate **Andrew A. Palacio,** *MD A '24*. "A lot of different notes on a piano would be a good analogy."

After work-shopping 40+ versions of the solution, they settled on an attachment that cuts the machine's noise similar to that of a silencer on a gun or a car's muffler.

"Our product takes in a full blow of air and separates it," said team member Leen Alfaoury. "Some of that air comes out as it is and part of it comes out shifted. The combination of these two sections of the air makes the blower less noisy."

Their design cuts the most shrill and annoying frequencies by about 12 decibels, which all but removes them, making them 94 percent quieter. The team also reduced the overall leaf blower noise by about two decibels, making the machine sound 37 percent quieter.

So, it's a quieter machine and what people can hear will sound more pleasant.

"It's the difference between hearing a high-pitched whistle and hearing what you might think of as wind noise," said team member, incoming Ph.D. student at Stanford University, and past MD Alpha Chapter vice president, **Madison G. Morrison,** *MD A '24*.

ATTENTION ALL MEMBERS SEEKING JOBS, INTERNSHIPS + GRADUATE SCHOOL!

Do not miss the 2024 Tau Beta Pi

RECRUITING FAIRS

Virtual - OCTOBER 10

10:00 a.m. to 5:00 p.m. E.T.

OPEN TO ALL MEMBERS. THE VIRTUAL APP OPENS SEPTEMBER 10.

In-Person - OCTOBER 24

10:15 a.m. to 3:45 p.m.

at the Tau Beta Pi Convention
The Monument - Rapid City, SD

See full details on Recruiting Fairs, including a list of recruiters and link to upload your resume at:

www.tbp.org/recruiting-fair.cfm

Questions? Contact Pat McDaniel at: p.mcdaniel@tbp.org

THE BENEFITS OF MEMBERSHIP

See the complete list at: **www.tbp.org/member-benefits.cfm**

AMBITION IN MOTION: A mentorship program for students and alumni to help form professional connections for guidance. More information on **page 39**.

DELL: Discount program on Dell branded personal products, electronics, and accessories.

HP: partnership providing discounts on HP equipment. See **page 39** for more.

LOCAL HOSPITALITY: Access to a worldwide inventory of hotels at exclusively discounted rates.

PPI: 20 percent discount on preparation materials for the FE/EIT and PE licensing exams.

CIVIL SERVICE: Receive automatic entry-level advancement of U.S. Government applicants to GS-7.

LINKEDIN: Join 36,600 members in our official group for professional networking and career discussions (search: Tau Beta Pi Engineering Honor Society).

TAU BETA PI JOB BOARD: Post a resume online and browse hundreds of engineering jobs at top companies.

COLLEGIATE CHAPTERS

263 COLLEGIATE CHAPTERS
257 ACTIVE — 640,293 MEMBERS

*6 Inactive chapters shown in **BLUE***

Α = ALPHA
Β = BETA
Γ = GAMMA
Δ = DELTA
Ε = EPSILON
Ζ = ZETA
Η = ETA
Θ = THETA
Ι = IOTA
Κ = KAPPA
Λ = LAMBDA
Μ = MU
Ν = NU
Ξ = XI
Ο = OMICRON
Π = PI
Ρ = RHO
Σ = SIGMA
Τ = TAU
Υ = UPSILON
Φ = PHI
Χ = CHI
Ψ = PSI
Ω = OMEGA

AL ALPHA Auburn University
BETA University of Alabama
GAMMA Univ. of Ala. at Birmingham
DELTA Univ. of Ala. in Huntsville
EPSILON Univ. of South Alabama
AK ALPHA Univ. of Alaska Fairbanks
AZ ALPHA University of Arizona
BETA Arizona State University
GAMMA Northern Arizona University
DELTA Embry-Riddle Univ., Prescott
AR ALPHA University of Arkansas
BETA Univ. of Ark. at Little Rock
CA ALPHA UC Berkeley
BETA Calif. Institute of Technology
GAMMA Stanford University
DELTA University of Southern Calif.
EPSILON UC Los Angeles
ZETA Santa Clara University
ETA San Jose State University
THETA Calif. State Univ., Long Beach
IOTA Calif. State Univ., Los Angeles
KAPPA Calif. State Univ., Northridge
LAMBDA UC Davis
MU Calif. Poly St. Univ., San Luis Obispo
NU Calif. State Poly Univ., Pomona
XI San Diego State University
OMICRON Loyola Marymount Univ.
PI Northrop University (inactive)
RHO California State Univ., Fresno
SIGMA UC Santa Barbara
TAU University of California, Irvine
UPSILON Calif. St. Univ., Sacramento
PHI University of the Pacific
CHI California State Univ., Fullerton
PSI UC San Diego
OMEGA Harvey Mudd College
ALPHA ALPHA Calif. St. Univ., Chico
ALPHA BETA UC Riverside
ALPHA GAMMA San Francisco St. Univ.
ALPHA DELTA UC Santa Cruz
ALPHA EPSILON Univ. of San Diego
CO ALPHA Colorado School of Mines
BETA Univ. of Colorado at Boulder
GAMMA University of Denver
DELTA Colorado State University
EPSILON Univ. of Colorado at Denver
ZETA U.S. Air Force Academy
CT ALPHA Yale University
BETA University of Connecticut
GAMMA University of Hartford
DE ALPHA University of Delaware
DC ALPHA Howard University
BETA Catholic Univ. of America
GAMMA George Washington Univ.
FL ALPHA University of Florida
BETA University of Miami
GAMMA University of South Florida
DELTA University of Central Florida
EPSILON Florida Atlantic University
ZETA Florida Institute of Technology
ETA FL A&M Univ.-FL State Univ.
THETA Florida International Univ.
IOTA Embry-Riddle Aero. Univ.
GA ALPHA Georgia Institute of Technology
BETA Mercer University
GAMMA Georgia Southern Univ.
DELTA University of Georgia
ID ALPHA University of Idaho
BETA Idaho State University
GAMMA Boise State University
DELTA Brigham Young Univ.-Idaho
IL ALPHA Univ. of IL at Urbana-Champaign
BETA Illinois Institute of Technology
GAMMA Northwestern University
DELTA Bradley University
EPSILON S. Illinois Univ. at Carbondale
ZETA University of Illinois at Chicago
IN ALPHA Purdue University
BETA Rose-Hulman Inst. of Technology
GAMMA University of Notre Dame
DELTA Valparaiso University
EPSILON Trine University
ZETA Indiana Univ.-Purdue Univ. Indpls.
IA ALPHA Iowa State University
BETA University of Iowa
KS ALPHA University of Kansas
BETA Wichita State University
GAMMA Kansas State University
KY ALPHA University of Kentucky
BETA University of Louisville
GAMMA Western Kentucky University
LA ALPHA Louisiana State University
BETA Tulane University
GAMMA Louisiana Tech. University
DELTA Univ. of Louisiana at Lafayette
EPSILON University of New Orleans
ME ALPHA University of Maine
MD ALPHA Johns Hopkins Univ.
BETA University of Maryland
GAMMA U.S. Naval Academy
DELTA Univ. of Maryland Baltimore Co.
EPSILON Morgan State University
MA ALPHA Worcester Polytechnic Inst.
BETA Massachusetts Inst. of Tech.
GAMMA Harvard University (inactive)
DELTA Tufts University
EPSILON Northeastern University
ZETA University of Mass. at Amherst
ETA Boston University
THETA Univ. of Massachusetts Lowell
IOTA Western New England Univ.
KAPPA Merrimack College
MI ALPHA Michigan State University
BETA Michigan Technological Univ.
GAMMA University of Michigan
DELTA University of Detroit Mercy
EPSILON Wayne State University
ZETA Kettering University
ETA Lawrence Technological Univ.
THETA Oakland University
IOTA Univ. of Michigan-Dearborn
KAPPA Western Michigan Univ.
LAMBDA Grand Valley State Univ.
MN ALPHA Univ. of Minnesota-Twin Cities
BETA Univ. of Minnesota, Duluth
MS ALPHA Mississippi State University
BETA University of Mississippi
MO ALPHA Univ. of Missouri-Columbia
BETA Missouri Univ. of Science & Tech.
GAMMA Washington University
DELTA Univ. of Missouri-Kansas City
EPSILON Saint Louis University
MT ALPHA Montana State University
BETA Montana Tech. of the Univ. of MT
NE ALPHA Univ. of Nebraska-Lincoln
NV ALPHA University of Nevada, Reno
BETA Univ. of Nevada, Las Vegas
NH ALPHA Univ. of New Hampshire
BETA Dartmouth College
NJ ALPHA Stevens Institute of Technology
BETA Rutgers University
GAMMA New Jersey Inst. of Tech.
DELTA Princeton University
EPSILON Rowan University
ZETA The College of New Jersey
NM ALPHA New Mexico State University
BETA University of New Mexico
GAMMA NM Inst. of Mining & Tech.
NY ALPHA Columbia University
BETA Syracuse University
GAMMA Rensselaer Polytechnic Inst.
DELTA Cornell University
EPSILON New York Univ. (inactive)
ZETA Brooklyn Polytechnic (inactive)
ETA City College of CUNY
THETA Clarkson University
IOTA Cooper Union School of Eng'g.
KAPPA University of Rochester
LAMBDA Pratt Institute (inactive)
MU Union College
NU SUNY at Buffalo
XI Manhattan College
OMICRON SUNY at Stony Brook
PI Rochester Institute of Tech.
RHO NYU Tandon School of Eng'g.
SIGMA Alfred University
TAU Binghamton University
UPSILON U.S. Military Academy
NC ALPHA North Carolina State Univ.
BETA Univ. of North Carolina (inactive)
GAMMA Duke University
DELTA Univ. of NC at Charlotte
EPSILON NC A&T State University
ZETA East Carolina University
ETA Western Carolina University
ND ALPHA North Dakota State University
BETA University of North Dakota
OH ALPHA Case Western Reserve Univ.
BETA University of Cincinnati
GAMMA Ohio State University
DELTA Ohio University
EPSILON Cleveland State Univ.
ZETA University of Toledo
ETA Air Force Institute of Tech.
THETA University of Dayton
IOTA Ohio Northern University
KAPPA University of Akron
LAMBDA Youngstown State Univ.
MU Wright State University
NU Cedarville University
XI Miami University
OK ALPHA University of Oklahoma
BETA University of Tulsa
GAMMA Oklahoma State University
OR ALPHA Oregon State University
BETA Portland State University
GAMMA University of Portland
DELTA Oregon Institute of Tech.
PA ALPHA Lehigh University
BETA Pennsylvania State University
GAMMA Carnegie Mellon University
DELTA University of Pennsylvania
EPSILON Lafayette College
ZETA Drexel University
ETA Bucknell University
THETA Villanova University
IOTA Widener University
KAPPA Swarthmore College
LAMBDA University of Pittsburgh
MU Penn State Erie, Behrend College
PR ALPHA University of Puerto Rico
QATAR ALPHA Texas A&M Univ. at Qatar
RI ALPHA Brown University
BETA University of Rhode Island
SC ALPHA Clemson University
BETA University of South Carolina
GAMMA The Citadel
SD ALPHA S. Dakota Sch. of Mines & Tech.
BETA South Dakota State University
TN ALPHA University of Tennessee
BETA Vanderbilt University
GAMMA Tennessee Tech. University
DELTA Christian Brothers Univ.
EPSILON University of Memphis
ZETA Univ. of Tenn. at Chattanooga
ETA Lipscomb University
TX ALPHA University of Texas at Austin
BETA Texas Tech. University
GAMMA Rice University
DELTA Texas A&M University
EPSILON University of Houston
ZETA Lamar University
ETA Univ. of Texas at Arlington
THETA Univ. of Texas at El Paso
IOTA Southern Methodist University
KAPPA Prairie View A&M University
LAMBDA Texas A&M Univ.-Kingsville
MU Univ. of Texas at San Antonio
NU Univ. of Texas Rio Grande Valley
XI University of Texas at Dallas
UAE ALPHA American Univ. of Sharjah
UT ALPHA University of Utah
BETA Brigham Young University
GAMMA Utah State University
VT ALPHA University of Vermont
BETA Norwich University
VA ALPHA University of Virginia
BETA Virginia Poly. Inst. & State Univ.
GAMMA Old Dominion University
DELTA Virginia Military Institute
EPSILON Virginia Commonwealth Univ.
WA ALPHA University of Washington
BETA Washington State University
GAMMA Seattle University
DELTA Gonzaga University
WV ALPHA West Virginia University
BETA West Virginia Univ. Inst. of Tech.
WI ALPHA Univ. of Wisconsin-Madison
BETA Marquette University
GAMMA Univ. of Wlisconsin-Milwaukee
DELTA Milwaukee School of Eng'g.
EPSILON Univ. of Wisconsin-Platteville
WY ALPHA University of Wyoming

ALUMNI CHAPTERS

82 ALUMNI CHAPTERS
52 ACTIVE

*30 Inactive chapters shown in **BLUE***

DISTRICT 1
Central CT, Hartford
Greater Boston Area, MA

DISTRICT 2
Buffalo, NY
Central Jersey, NJ
Long Island Suburban, NY
Newark, NJ
New York City, NY
New York Capital District, NY
Rochester, NY
Southern Tier, Binghamton, NY

DISTRICT 3
Lehigh Valley, Bethlehem, PA
Philadelphia, PA
Pittsburgh, PA
Wilmington, DE

DISTRICT 4
Baltimore, MD
Charlotte, NC
Hampton Roads, Newport News, VA
Kanawha Valley, Charleston, WV
Research Triangle, Durham-Chapel Hill-Raleigh, NC
Richmond, VA
Washington, DC

DISTRICT 5
Atlanta, GA
Central FL, Orlando
Daytona Beach, FL
Gainesville, FL
Miami, FL
Midlands, Columbia, SC
Palm Beach/ Broward, FL
Piedmont, Clemson, SC
Puerto Rico
Southwest FL
Tampa Bay, FL

DISTRICT 6
Bluegrass, Lexington-Frankfort, KY
Central Alabama, Birmingham
Great Smoky Mountains, Knoxville-Oak Ridge, TN
Greater Gulf Coast, Mobile, AL
Louisville, KY
Mid-South, Memphis, TN
Rocket City, Huntsville, AL

DISTRICT 7
Ann Arbor Area, MI
Central MI, Lansing
Cincinnati, OH

DISTRICT 7
Cincinnati, OH
Columbus, OH
Dayton, OH
Flint, MI
Ohio's North Coast, Cleveland
SE Michigan, Detroit
West Michigan, Grand Rapids

DISTRICT 8
Chicago Area, IL
Central Illinois, Urbana-Champaign
Indianapolis, IN
Milwaukee Area, WI

DISTRICT 9
Kansas City, KS
Pioneer, OK
Rolla, MO
Scissortail, OKC-Norman OK
St. Louis, MO

DISTRICT 10
Central Texas, Austin/San Antonio
North Texas, Dallas-Fort Worth
Greater New Orleans, LA
Texas Gulf Coast, Houston

DISTRICT 11
Ames, IA
Minnesota, Twin Cities, MN

DISTRICT 12
Pikes Peak, CO
Front Range, CO/WY
Salt Lake City, UT
Treasure Valley, Boise, ID

DISTRICT 13
Albuquerque, NM
El Paso, TX
Phoenix, AZ
Sun City, AZ
Tucson, AZ

DISTRICT 14
Columbia River Basin, Richland, WA
Portland, OR
Puget Sound, Seattle, WA

DISTRICT 15
Sacramento Vly, CA
SF Bay Area, CA
SF Peninsula, Palo Alto, CA

DISTRICT 16
Los Angeles, CA
Orange County, CA
Greater San Diego, California
Southern California

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