Summer 2022 Summer 2022 Contact the Missouri S&T Order of the Golden Shillelagh Summer 2022 New Summer 2022



YOU'RE INVITED TO JOIN THE MINER ALUMNI ASSOCIATION

Connect virtually with S&T alumni and students to read and discuss books about lifelong learning, personal growth and other fictional and non-fictional topics. We meet through a private, facilitated forum to review the books and network with each other.

Joining is free — just get a copy of the book to enjoy!



Why join?

- ► Embrace lifelong learning

 The forum offers new insights to help you become a more effective leader and communicator and lead a fulfilling life.
- Reading is good for you It can reduce stress, help you sleep better and improve your verbal and emotional intelligence.
- Engage with fellow alumni and current students
 Connect across industries, generations and geographies to gain different perspectives.
- Join the MAA Book Club: **pbc.guru/mst**.



Questions? Contact Rachelle Martin at martinrache@mst.edu or 573-341-4897.





DEAR FRIENDS,

It is such a pleasure to return to in-person events on our evolving campus. OGS members old and new gathered in June for OGS Weekend in Rolla, our first full weekend of camaraderie since 2019. We were entertained with the humorous "Reflections on Rolla" program presented by Craig Barnes, ME'78, and David Bayless, ME'87, followed by a message from Chancellor Mo Dehghani highlighting how the generosity of OGS members is transforming the university. This issue of the Shillelagh highlights that memorable weekend, our new and advancing OGS members, and other recent campus events.

The icing on the cake was the attendance of three generations of the Eloe family, all now OGS members. **Howard Eloe** was S&T's first director of development and founder of our university's major giving programs. By pulling together the inaugural fundraising initiatives and their leaders, his impact on the 1977 founding of OGS has been enduring.

In March, St. Pat's returned as a full-fledged campus celebration with our own **Steve Rector**, PetE'72, MS Pet'73, as Honorary Knight and a new tradition of hosting the Honorary Knights gala in Hasselmann Alumni House.

Our donor profiles spotlight **Anthony Steinmeyer**, a retired U.S. Department of Justice attorney, whose Rolla upbringing as the son of an MSM economics professor inspired him to endow a faculty chair in economics; and radio technology inventor **Greg O'Neill**, EE'65, and his wife, **Carol**, who established an endowment to support students majoring in electrical and computer engineering.

In April, alumni and the campus community honored members **Linda** and **Bipin Doshi**, ChE'62, MS ChE'63, with a celebration to commemorate their historic department-naming gift for chemical and biochemical engineering.

Also in April, ground was broken on the Innovation Lab, a building dedicated to educating students through collaboration, creative expression and possibility thinking. Partially funded by the Kummer Institute Foundation, the facility will be a hub for

expanded experiential learning, as well as an impressive architectural focus on campus.

Looking ahead, I am thrilled to announce the upcoming celebration of our new Arrival District during Homecoming weekend on Friday, Oct. 21. Excitement is mounting for the nearly completed thoroughfare that directly links Interstate 44 to our new grand entrance, thanks to the generous naming gift of **Tim**, PetE'77, and **Kay Bradley**. Many OGS donors have contributed in other ways to make the Arrival District a reality, and I sincerely hope you can join us to celebrate this milestone.

We have also received significant support from the state, its manufacturers and the Kummer Institute Foundation for the new Missouri Protoplex facility, which will be the headquarters for a statewide manufacturing ecosystem located on our campus. This initiative joins academia with industry to research and develop new manufacturing materials and processes designed to create jobs in Missouri. Stay tuned for updates about the groundbreaking for this dynamic new capital project.

Surely, we could not have gone this far this fast, without the generous support of our OGS family. We are deeply grateful for the continuing confidence you place in our bright future!

With gratitude, Tory Verkamp

Lant Angrand

Interim Vice Chancellor for University Advancement



OGS RETURNS TO ROLLA

In June, OGS members gathered in Rolla to celebrate the Miner spirit with several of the area's best offerings. Starting at The Gardens at St. James Winery and Public House Brewing Co., members enjoyed camaraderie in a beautifully landscaped outdoor space complete with local varietal wines, craft beers, hors d'oeuvres and dinner.

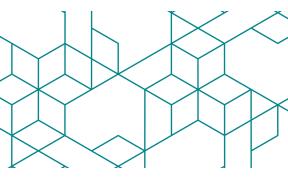
- Marissa Foelsch, daughter of OGS member Karen
 Squires Foelsch, CSci'89, takes a spin on a machine
 designed and built by S&T's Human Powered Vehicle
 Design Team during a tour of the Kummer
 Student Design Center.
- Logan Campbell, manager of alumni relations, and John Eash AE'79, MS EMgt'90, enjoy a game of bocci ball at The Gardens.





Cover Story





The next day, some stayed on campus to learn from one of the most distinguished military historians of our time, Dr. John McManus, and see S&T's latest developments, including the emerging Arrival District.

Others headed for Fort Leonard Wood to visit the federal John B. Mahaffey Museum Complex, which chronicles the history of the U.S. Army Engineers, Chemical Corps and Military Police.



Cover Story

The weekend culminated with our recognition ceremony at Hasselmann Alumni House where we celebrated the unique Rolla experience, welcomed new OGS members, and honored those whose legacy has grown with sustained support.

View photos of the weekend at giving.mst.edu/OGSphotos.









Three generations share **OGS** membership

Howard Eloe (seated right), S&T's first director of development, was honored Saturday night for an unprecedented legacy: two new generations of his family were inducted into OGS. Howard and his late wife, JoAnn, joined OGS in 2000.

OGS welcomed Howard's son Paul, MS Math'77, PhD Math'80, and his wife, Laurie Eloe. We were delighted that their son, Nathan, Phys'10, CSci'10, PhD CSci'15, and his wife, Wendy, Hist'10, also joined our circle of friends.

With gratitude

The Order of the Golden Shillelagh recognizes its new and advancing members with gratitude for their generous support.



NEW MEMBERS

Denis Backer
Carey Bottom
Lawrence and Charlene Britt
Gary and Janet Creason
Arthur and Linda Curle
Mo and Mina Dehghani
Petra DeWitt
Terry and Karen Donze
Nathan and Wendy Eloe
Paul and Laurie Eloe
J. Scott and Charlotte George
Kenneth and Sherry Gielow
Larry Gragg
Edward Haug Jr. and
Carol Haug

Peter and Amanda Heerboth
James Hummel
Vincent Kunderman
Andrew and Molly Laegeler
Richard and Rita Laschober
Robert Moore
Gregory O'Neill Jr.
and Carolyn O'Neill
Richard and Dorothy Schmidt
Cordell Smith and
David Jonas
Brian and Catherine Tepper
Lawrence Unnerstall Jr. and
Elizabeth Unnerstall

ADVANCING MEMBERS

Timothy and Julie Alfermann Daniel and Wendy Bailey David and Sally Bayless John Berger Tim and Kay Bradley Douglas and

Josephine Brockhaus
Hal and Kimberly Burch
John and Sharon Campbell
Preston and Mandy Carney
William and Joan Clarke
Matt Coco
Daniel and Rhonda Cole
Jane Dare
Delbert Day
Bipin and Linda Doshi
John and Marie Eash
Curt Elmore and

Cecilia Gutierrez Elmore Walter and Boo Eversman Susan Finley Rodney Foster

Raymond Fournelle Michael and Anne Fox Brett Frankenberger John and Kristie Gibson Kurt and Kate Haslag Gary and Judy Havener Richard Jay Hicks William and Barbara Ingram Dennis and Janet Jaggi G. Willard and Kay Jenkins Philip and Barbara Jozwiak Al Kaplan Byron Keil Robert and Mary Keiser Dale Kyser Philip Ling Steven and Gwen Malcolm Helen McIntvre Ashok and Chris Midha Louise Morgan Dale and Debora Morse Steven and Julie Moss

Steve and Ernestine Mueller Stephen Nelson Mitchell and

Katherine Niehoff
Thomas and Linda Owens
Robert and Virginia Pahl
Michael and Catherine Party
Kent and Ellen Peccola
Richard and Janice Peters
Virgil Lee and Mimi Powell
David and Arlene Raterman
Geoffrey Reedy and

Karen Schindler Reedy
Kevin and Michele Renfro
Daniel Hier and
Debra Robinson
Ronald Rosner
George and Donna Salof
Hans and Kathy Schmoldt
Aaron Schrader

Humbert and Norma Sfreddo

Cheryl Seeger

Jeffrey and Patricia Sheets Iohn Skain Randy and Janet Southmayd Anthony Steinmeyer Robert Stevens **James Stoffer** William Stoltz Stephen and Betty Suellentrop Cat Tradd and Natalie Vanderspiegel Torie Ann Vandeven Thomas and Mary Lynn Wetteroth Robert White Robert and Linda Whitehead

Kevin and Theresa Williams

Chris and Marsha Wilson

Gerald Wilemski

Leslie Dwain Witt









From left: Ruth Steinmeyer, John Steinmeyer, the couple in 1942 and in the foreground of a Coterie dinner in 1963.

ANTHONY STEINMEYER

Memorable Rolla upbringing inspires faculty endowment

Growing up in Rolla as the child of a Missouri School of Mines (MSM) faculty member had an enduring impact on **Anthony Steinmeyer**, a Harvard Law School graduate and retired U.S. Department of Justice attorney. In a support system interwoven by the school's common bond, professors and their families influenced his life as he honed his skills in knot-tying, competed in sports, and played the Sousaphone in the high school band.

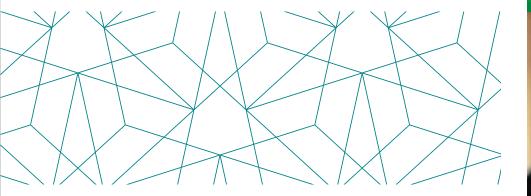
Steinmeyer moved to Rolla at age 4 when his father, the late John Steinmeyer, began his MSM teaching career. John joined the faculty as an English instructor in 1946 and switched to economics in 1950, advancing to associate professor. He served as MSM's golf coach and briefly, as tennis coach. John was also involved in Rolla's nonacademic community, cooking the first pancake breakfast hosted by the Rolla Kiwanis Club and as a member of the PTA and the Rolla Merchants Association.

Steinmeyer says his Rolla upbringing prepared him for the intellectual and leadership opportunities he pursued after graduating as salutatorian from Rolla High School in 1960.

"I have many fond memories of the Missouri School of Mines," he says. "Although I was never a student there, the school has had an important and very positive impact on my life. And both my mother and sister were employed by MSM after my father's untimely death in 1964."

A 1964 philosophy graduate of the College of William & Mary in Williamsburg, Va., Steinmeyer was the cadet commander of the college's Army Reserve Officer Training Corps brigade and earned the James Frederic Carr Memorial Cup, which annually recognizes one student for exemplary character, scholarship and leadership. In 1967, he earned a juris doctorate from Harvard, followed by two years of active service in the U.S. Army.

New and Noteworthy







I'm pleased to now be able to endow a chair to honor my parents and to show my appreciation for all the university has done and continues to do to benefit me, other past and present Rolla residents and many more people."

ANTHONY STEINMEYER



ESTABLISHED THE JOHN AND RUTH STEINMEYER MEMORIAL ENDOWED CHAIR OF ECONOMICS

Steinmeyer began his legal career in the civil division of the U.S. Department of Justice (DOJ) in Washington, D.C., where he was responsible for cases in the 13 U.S. courts of appeals and the Supreme Court. Some involved the ownership of former President Richard Nixon's Watergate tapes, and others the publication of the Pentagon Papers. He retired from the DOJ in 2015 as assistant director of the appellate staff.

Steinmeyer honored his late parents with a \$2 million gift to establish the John and Ruth Steinmeyer Memorial Endowed Chair of Economics at Missouri S&T. The endowment supports an exceptional scholar who chairs the economics department in the new Kummer College of Innovation, Entrepreneurship, and Economic Development, the academic arm of Missouri S&T's Kummer Institute of Student Success, Research and Economic Development. Dr. **Melody Lo**, a professor of economics at Arkansas State University, will assume this inaugural role in Fall 2022.

"I'm pleased to now be able to endow a chair to honor my parents and to show my appreciation for all the university has done and continues to do to benefit me, other past and present Rolla residents and many more people," Steinmeyer says.

He also recently established the John and Ruth Steinmeyer Memorial Scholarship, which will provide financial assistance to Rolla High School graduates who enroll in economics or mathematics degree programs at S&T.



St. Pat's makes a comeback

Miners were united complete with full green regalia at this year's 114th Best Ever St. Pat's celebration after two years without the full-fledged tradition.

The St. Pat's Honorary Knights
Celebration on March 18 took on a new
dimension with Hasselmann Alumni
House hosting the gala. OGS member and
past Miner Alumni Association president
Steve Rector, PetE'72, MS PetE'73,
was recognized at the gala as a 2022
Honorary Knight and later was knighted
during the traditional coronation
ceremony in Leach Theatre.

On Saturday, March 19, members of the Rolla community gathered in the alumni house parking lot for a buffet breakfast, followed by a lively parade. Miner alumni continued their revelry inside with the traditional pig roast in the Bauer Bar and Grand Hall.



"I am so grateful for my education at Rolla. Almost all my coursework has benefitted me, and I've applied most everything I learned there."

— Greg O'Neill

The Greg and Carol O'Neill Endowed Scholarship supports S&T students majoring in electrical and computer engineering. **GREG AND CAROL O'NEILL**

Launching a Startup into orbit

At age 9, **Greg O'Neill**, EE'65, wired his bedspring to listen to his dad's crystal radio receiver. Five years later he obtained an amateur radio (ham) operator's license for a hobby that led to a career as a product developer, inventor and ultimately an entrepreneur in radio communication technologies. Today as chairman of Helical Communication Technologies, he designs and produces satellite antennas for government agencies and commercial entities worldwide.

After graduating from Missouri S&T (then UMR), O'Neill began his career working for such companies as Motorola, RCA, Magnavox, Ericsson and SkyCross, where he developed an interest in QFH (quadrifilax helix) antennas that capture images from low-level satellites.

O'Neill was the main inventor on 20 patents involving wireless communication devices, broadband systems and QFH antennas when he left the corporate world in 2011. With the surging market in the global Internet of Things (IoT), he saw the need for more specialized satellite antennas placed in low Earth orbit at an altitude of 500 kilometers.

"These are satellites outside the cellular network that monitor commercial activity from oil wells, ships at sea and for defense projects," says O'Neill.

In 2012, O'Neill and a business partner founded Helical Communication Technologies located near NASA's Kennedy Space Center in Rockledge, Fla., where scores of satellites are routinely deployed from a single rocket launch.

O'Neill is enthusiastic about the company's deployable QFH antenna he calls an "electrical marvel." The device improves space to Earth communications by putting a larger antenna pattern on Earth that includes more ground stations. As sole inventor, he received

a U.S. patent for the device in 2017 and is now applying for international patents.

O'Neill earned a master's degree in electrical engineering from the Illinois Institute of Technology in Chicago in 1970. He was inducted into Missouri S&T's Academy of Electrical and Computer Engineering in 2017 and is a senior life member of the Institute of Electrical and Electronics Engineers (IEEE). He also volunteers in disaster services for the American Red Cross Florida Space Coast Chapter.

O'Neill praises his wife and high school sweetheart, **Carol**, for her ongoing support throughout his career challenges.

"I've held the fort down throughout our marriage, which allowed Greg to attain his knowledge," says Carol.

His education and career also influenced the O'Neill's children — their late son was a mechanical engineer, and their daughter is a chemical engineer with Exxon in Houston. They have two grandchildren.

The O'Neills have established the Greg and Carol O'Neill Endowed Scholarship to support S&T students majoring in electrical and computer engineering.

"I'm fortunate to have had a fascinating career, and I want to pay it forward to help them make important technological contributions to our world, especially in space." says O'Neill.

LINDA AND BIPIN DOSHI

PIONEERS IN PHILANTHROPY

Linda and Bipin Doshi, ChE'62, MS ChE'63, the first donors in the history of our university to name an academic department, were honored on campus with a heartfelt celebration of thanks on April 6. Their extraordinary \$10 million gift in support of chemical and biochemical engineering is a prestigious distinction for Missouri S&T that supports an endowed chair, two professorships and enduring technology, fellowship and research funding for the department.

Chancellor **Mo Dehghani** welcomed friends of the Doshis, S&T trustees, campus leadership, members of the Academy of Chemical Engineering, and faculty and students into Bertelsmeyer Hall for a festive full-house reception complete with poster displays of student research.

The Doshis were then honored at Hasselmann Alumni House with a dinner and program titled "Milestones and Memories," which highlighted their life history and how their contribution bridges the past, present and future of Missouri S&T's chemical and biochemical engineers.

"As the first person to hold the Doshi Chair, I am grateful to Linda and Bipin for this great honor," said Dr. **Hu Yang**. "I know that my colleague, **Xinhua Liang**, who holds the first Doshi Professorship, shares my gratitude. I'm pleased to report that we are in the process of recruiting our second Doshi Professor."

The Doshi Proclamation of Gratitude recognizing their generosity was included in a time capsule sealed on Nov. 5, 2021, to mark the conclusion of S&T's 150th anniversary celebration. It will be opened during S&T's bicentennial in 2071.







Breaking new gr

With a clear focus on ensuring Missouri S&T's strong future, three major construction projects are underway on campus: our Arrival District, Innovation Lab and Missouri Protoplex. These projects will meet S&T's strategic goals to create a culture of research and innovation and to increase visibility, recruitment, retention and rankings.

Funding for the projects comes from combined investments from the Kummer Institute Foundation, which manages the university's \$300 million endowed gift from the late Fred, CE'55, and June Kummer, private and corporate donors, the state of Missouri, the University of Missouri System, and Missouri S&T. The physical campus also plays an essential role in fulfilling the Kummers' vision to elevate S&T, establish broad STEM outreach and ensure economic impact.

Transportation enhancements to improve access to the campus from Interstate 44 are part of the Move Rolla Transportation Development District (TDD) program, a partnership between S&T, the City of Rolla, Phelps County, Phelps Health, the Missouri Department of Transportation (MoDOT) and UTW Rolla, a private development firm.





Many components of this multiphase project are well underway:

- Realignment of University Drive into Tim Bradley Way and construction of a contiguous roundabout, both of which lead visitors directly to campus
- Design for a fourth geothermal energy plant and associated well fields to serve the Innovation Lab, Welcome Center and future planned buildings
- Completion of a pedestrian bridge with landscaping over Interstate 44 that safely connects the north and south sides of campus
- Demolition of the Campus Support Facility and power plant

Other projects are moving forward:

- ► A 30,499-gross-square-foot Welcome Center for prospective students and their families will showcase the university and consolidate recruitment and admissions functions
- Excavation of the Arrival District's underground parking garage
- Widening the Highway 63 underpass

INNOVATION LAB

S&T broke ground April 21 on the new 49,280-gross-square-foot Innovation Lab, a building that will serve as a home for student innovation, creativity and discovery. Located next to the Havener Center, the Innovation Lab will forge an expanding path for experiential learning.

The Innovation Lab's active learning resources like maker spaces, technology-infused classrooms, IDEA (Innovation, Design, Entrepreneurship, Acceleration) Labs, and spaces for collaborative study will set the stage for emerging entrepreneurs.

With dramatic lighting defined by floor-to-ceiling windows, the Innovation Lab will be a beacon for the entire campus and leave visitors with a fresh first impression. The building's heating and cooling will be supported by a nearby geothermal energy plant that has capacity for future campus structures.

The building will be fully funded by private gifts from the Kummer Institute Foundation and Missouri S&T alumni and supporters. It is scheduled for completion in Fall 2023.

Naming opportunities are available for select spaces in the Innovation Lab. Please contact Kristen Gallagher, executive director of development and strategic engagement for the Kummer Institute, at gallagherkr@mst.edu or 573-341-6050.



The Innovation Lab is the first building on campus to bring to life to the Kummer Institute vision to transform Missouri S&T, the state, and the nation through student success, research and economic development.

MISSOURI PROTOPLEX

The Manufacture Missouri Ecosystem (MME) is a network of small, medium and large manufacturers across the state that connects companies with university expertise to strengthen their global competitiveness. Key to the MME's success is the Missouri Protoplex.

This modern 135,000-gross-square-foot facility will serve as the headquarters for the statewide MME on Missouri S&T's upcoming manufacturing technology and innovation campus to be constructed north of Interstate 44.

The Missouri Protoplex will bring industry and academia together to research new materials and methods, prototype and test new manufacturing processes, develop workforce competencies, and solve multidisciplinary problems to bring new manufacturing systems into practical use.

The University of Missouri Board of Curators approved the first phase of the \$104 million Missouri Protoplex in late 2021. The Kummer Institute Foundation has committed \$50 million in support, and the Missouri General Assembly approved Gov. Mike Parson's



recommendation to devote \$41.25 million in American Rescue Plan Act funding to the project. The facility will be constructed on the current site of S&T's General Services Building, which will be re-built near Missouri Route E and northwest of Fraternity Circle.

TO EXPERIENTIAL LEARNING SUPPORT

OGS members are some of Missouri S&T's strongest advocates of experiential learning. We are immensely grateful to the donors who embrace this educational credential that distinguishes our graduates.





S&T's Mars Rover is third in the world

Our Miner Pride goes out to the **Mars Rover Design Team** whose *Prometheus* rover
finished first in design and third in the world,
competing against 35 international finalist
teams in the 2022 University Rover Challenge.

Held at the Mars Desert Research Station in Hanksville, Utah, the competition included four missions of robotic maneuvers and a design review. S&T's team tied for first in the equipment servicing and extreme retrieval and delivery missions.

This year's competition was the first inperson event since 2019. S&T teams have performed well in previous competitions, including a fifth-place finish in 2019, a second-place finish in 2018 and as World Champion in 2017.

Steel Bridge Team wins fourth consecutive regional competition

The **Steel Bridge Design Team** won first place overall at the regional American Institute of Steel Construction Mid-Continent Student Conference held in April at Iowa State University.

Nicholas Libre, team advisor and associate teaching professor of civil, architectural and environmental engineering, says he appreciates the continuing support of the team's founding advisor, OGS member Roger LaBoube, CE'70, MS CE'73, PhD CE'77, teaching professor emeritus of civil, architectural and environmental engineering.

In May, the team went on to compete at the national finals held at Virginia Tech and placed 13th among 33 other collegiate teams.



New dean named for College of Arts, Sciences, and Education

On July 1, Dr. Mehrzad Boroujerdi joined Missouri S&T as vice provost and dean of S&T's College of Arts, Sciences, and Education (CASE).

He took over the position from Dr. **Kate Drowne**, who has served as interim dean since 2019. Boroujerdi was previously director of the School of Public and International Affairs at Virginia Tech. Prior to that position, he spent 27 years at Syracuse University.

CASE is the re-structure of S&T's College of Arts, Sciences, and Businesses (CASB), which was established in 2014. The name changed in July with the formal establishment of the Kummer College of Innovation, Entrepreneurship, and Economic Development, which now houses the business and economics departments that were formerly a part of CASB.



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ARRIVAL DISTRICT CELEBRATION

DURING HOMECOMING WEEKEND

4 p.m., Friday, Oct. 21, 2022 Missouri S&T campus

OGS members made the Arrival District vision a reality! Join us to celebrate this major accomplishment.

Please watch for an invitation with more details. **Questions?** Contact Sarah Jones at **jonessarah@mst.edu** or **573-341-6359**.