

Helping East Africa

Dan Oerther wants to help East Africans help themselves. He is working to bring clean water, food and income to an area that is suffering from the worst drought in decades.

As the John and Susan Mathes Chair of Environmental Engineering at S&T, Oerther has spent the last five years with his wife, Sarah, a registered nurse, working on projects to benefit the area.

"We've been working with the Luo tribe in Tanzania and are now starting projects with the same tribe in Kenya," he says.

The Oerthers completed a water project in Kenya and returned to the country this past summer with **David Hackney**, a senior in civil engineering, to spend three weeks establishing the Pula Cloud project there. This income-generating project is a collaboration with a doctoral student at the University of Cincinnati and Missouri EDGE, a company owned by Sarah Oerther. Pula Cloud provides villagers with computers so they can sort through 40,000 images from a medical database to narrow them down for a researcher.

"Computers can't process these images like a human can," says Oerther. "And the researcher doesn't have time to go through all those images. We'd like to start a similar project in small communities near Rolla that need income generation as well."

Another project in Kenya, the Nutrition Partnership, will teach animal husbandry to widows. "Widows will learn to raise chickens for eggs, and the meat will be given to the schools to



Dan and Sarah Oerther

improve nutrition," says Oerther. The Oerthers will lend the funds for the chickens and associated capital, and have begun fundraising for a school lunch program.

Oerther is confident the projects in Kenya will be as successful as the ones in Tanzania. "The village in Tanzania now provides its own clean water," he says. "The Roche Health Center we started has a full-time doctor and several nurses. Diarrheal diseases and childhood mortality are down, and the nutrition program has improved students' health, academic performance and school attendance by 25 percent."

Briefly

Shamsher Prakash, professor emeritus of civil engineering, was named a Distinguished Member of the American Society of Civil Engineers, the society's highest accolade.

Glenn Morrison, associate professor of environmental engineering, was elected to the International Society of Indoor Air Quality and Climate Academy of Fellows.

For the second year in a row, the **Experimental Mine** — home to a popular summer Explosives Camp for high school juniors and seniors — tops a list of "Awesome College Labs" as determined by *Popular Science* magazine. The rankings appear in the magazine's September 2011 issue.

S&T students demonstrated environmental technology as part of the "Show-Me the Green: Conservation, Energy and Innovation" event at the Missouri State Fair in August using a model wind farm and a solar thermal collector.

Thanks to a \$58,000 grant from the University of Missouri System eLearning initiative, three **technical communication programs** are now available online — the master of science degree, graduate certificate and graduate minor. The program includes 10 courses for a total of 30 credit hours and will be taught using the university's Blackboard interface. There will also be live online meetings, and video and audio components. Working on this project are **Ed Malone**, associate professor of English and technical

communication and director of the department's online program, **Kathryn Northcut**, associate professor, and **David Wright**, assistant professor.

Missouri S&T is again classified as a research university with high research activity by the Carnegie Foundation for the Advancement of Teaching and will again be included in the *U.S. News & World Report* annual listing of national colleges and universities. S&T was omitted from the *U.S. News* 2012 ranking because of a change Carnegie made in 2010 moving S&T's classification to "specialty" engineering based on the percentage of engineering graduates. S&T was not notified of the change.

Dodging debris

William Schonberg says academia is cool because you usually get to research what you're really curious about. The chair of civil, architectural and environmental engineering likes to study high-speed impacts — specifically, those caused by space debris.

Schonberg was a member of a National Research Council committee that recently issued a 180-page report warning about the dangers of space debris.

One of the first "hits" was on a space shuttle in the early 1980s, when a very small piece of paint hit one of its windows. Now, low-Earth orbit is becoming increasingly cluttered by trash.

The large stuff — rocket boosters and so on — typically ends up falling back down and burning up in the atmosphere. But smaller projectiles continue to race around the planet and cause problems for astronauts and engineers. Schonberg studies the amount of damage that could be caused by potential impacts.

"We can track almost anything four inches in diameter and larger," says Schonberg, who first got involved in this type of research at the University of Alabama in Huntsville, which is located near NASA's Marshall Space Flight Center. "There are risk assessments performed before each NASA mission."

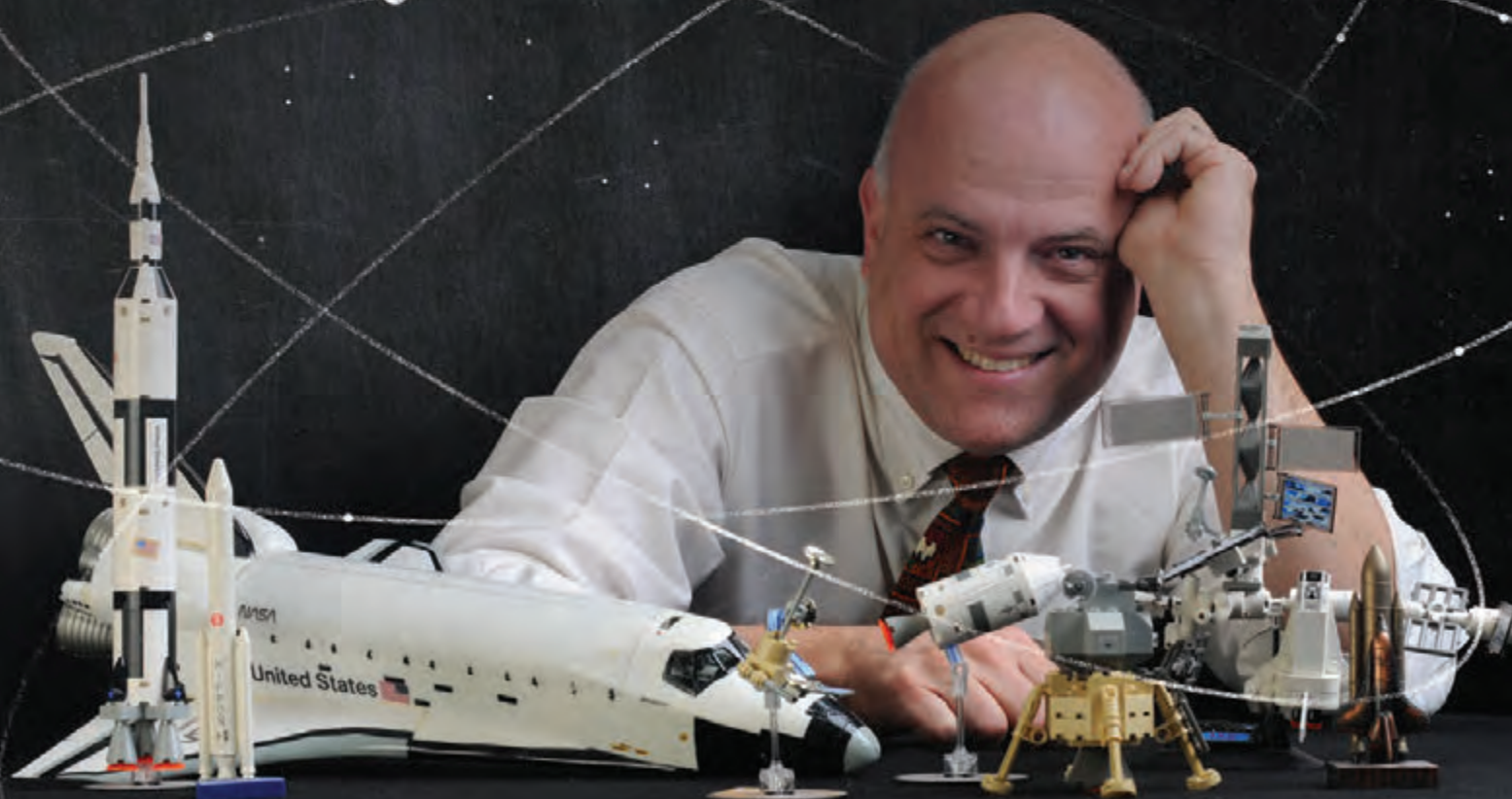
In recent years, evasive actions to avoid such projectiles in space have been more common.

As more and more rockets, shuttles and satellites have been launched, low-Earth orbit has been polluted by junk. In addition to high-tech stuff that is just left in orbit, even frozen human waste that was jettisoned years ago poses problems. "We're talking about projectiles that travel at around 18,000 miles per hour," Schonberg says.

And that's to say nothing of potentially even more dangerous natural objects, like meteorites and asteroids.

Of course, with the end of the U.S. shuttle program, not as many American astronauts will be put in harm's way. But the International Space Station is still colonized, and Schonberg thinks humans will continue to explore space. "I hope so," he says. "It's human nature to explore."

In the meantime, scientists will have to continue to monitor space junk closely. It's not currently plausible from a cost perspective to clean up all the stuff circling our planet.



MISSOURI HAS MORE THAN 3,000 MILES OF RIVERS

AND RAJIV MISHRA WANTS
TO USE THEM TO HARNESS
ENERGY.

So much potential water energy, so close to home

Missouri has more than 3,000 miles of rivers and **Rajiv Mishra** wants to use them to harness energy and decrease dependence on power currently derived from coal and nuclear plants.

Mishra thinks the ancient past and the modern present are converging in some ways. "In the past," he says, "we prayed to the sun god, to the wind god and to the water god. Now we are back to that point."

Mishra, former Curators' Professor of materials science, is talking about the three primary sources of renewable energy that Mother Nature produces naturally. Unfortunately, the state of Missouri can't really rely on getting as much wind and sun as some states. But what the state does have is plenty of water.

Though landlocked, Missouri has more than 3,000 miles of rivers. And the water in rivers flows predictably in one direction.

"Water that is flowing constantly has much more energy potential than wind because of higher power density," says Mishra, who is now on the faculty of the University of North Texas.

The idea is to put systems resembling wind turbines in running water to produce the energy. This is called hydrokinetic energy, not to be confused with hydro-electric energy produced by dams, which rely on gravity to make electricity via water and generators.

Many big cities in the U.S. are located on major rivers, including Kansas City and St. Louis. Between the two cities, 90,000 cubic feet of water is flowing per second on average. Mishra thinks hydrokinetic energy should be used to help power both metropolitan areas and other towns on the state's rivers.

Incidentally, Mishra says one study shows that 98 percent of fish that come in contact with the turbines would be fine.

Several different designs for hydrokinetic systems are under development and are being tested on campus. The sizes will eventually depend on the volumes of water in a particular river.

According to **Joshua Rovey**, assistant professor of mechanical and aerospace engineering and an investigator on the project, gauges are being embedded in the turbine blades as part of a monitoring system.

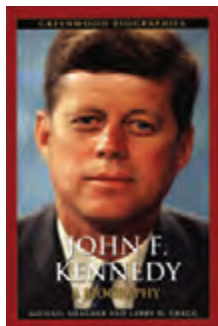
"With this technology, we can actively monitor the blade health as it evolves over time, significantly reducing operation and maintenance costs," Rovey says.

Working with Mishra and Rovey are **K. Chandrashekhara**, Curators' Professor of mechanical and aerospace engineering; **Xiaoping Du**, associate professor of mechanical and aerospace engineering; **Arindam Banerjee**, assistant professor of mechanical and aerospace engineering; **Jonathan Kimball**, assistant professor of electrical and computer engineering; a post-doctoral student and 10 other S&T students, including two undergraduates. The research is funded by the Office of Naval Research.



Rajiv Mishra

Exploring JFK's doubts, legacy



A new biography released by two S&T historians examines the life and political career of President John F. Kennedy. In it, authors **Michael E. Meagher** and **Larry D. Gragg** look at the choices Kennedy made during his brief tenure, including civil rights, the Cuban Missile Crisis and the “space race.”

John F. Kennedy, A Biography

“discusses Kennedy’s tragic miscalculations in the Bay of Pigs and his doubts about democracy,” says Meagher, associate professor of history and political science at S&T. “Kennedy first expressed these doubts when he was a Harvard undergraduate. He continued to question democracy in his later political life, including during his presidency.”

Meagher says the book also delves into Kennedy’s willingness to use “fear-based tactics” to manipulate the American people during the Berlin Crisis of 1961 and the Cuban Missile Crisis of 1962.

This is Meagher’s first book. Gragg, Curators’ Teaching Professor and chair of history and political science, has authored books about the Salem Witch Trials, the Quakers and the colonization of the West Indies island of Barbados. He will soon publish a book about the perceptions of Las Vegas in popular culture and a biography of Benjamin “Bugsy” Siegel, who played a role in the development of Las Vegas.

Can you read the sign?

If there’s one lesson that transportation engineers want drivers to learn, it’s to pay attention while driving in construction zones. That’s why **Ghulam Bham**, assistant professor of civil, architectural and environmental engineering, and his students are studying the effectiveness of dynamic variable message signs that are often used in highway work zones.

When used effectively, these devices give motorists real-time information about current traffic conditions, like traffic congestion or reduced speeds. The messages displayed are automated and based on data collected by sensors that are placed alongside the road.

The signs are common sights to motorists who travel on Interstate 44 in Missouri. For example, the signs were recently used in construction zones near Lebanon and Richland while the Gasconade River bridge, built in 1955, underwent an overhaul.

“We are evaluating drivers’ perceptions of the signs,” Bham says. “In addition to collecting video data and sensor information, we conducted a survey of 100 passenger and truck drivers who had stopped at a nearby gas station.”

Last year, more than 2,500 vehicles were involved in work zone crashes in the St. Louis area. Eight people died during those crashes and many more were injured. According to the Missouri Department of Transportation, most of the crashes in work zones were rear-end crashes, which usually indicates that one or more vehicles crashed into stopped or slowed traffic ahead.

“Dynamic message signs, when used in construction zones, can reduce delay and rear-end crashes, and improve traffic flow by informing drivers of real-time conditions,” Bham adds.

Bham also plans to create a virtual work zone using these signs to further collect driver perceptions using the campus driving simulator.

The house of the future, designed at S&T today

In the house of the future, built-in sensors will measure the weather outside and automatically adjust indoor air temperatures. Homeowners will be able to monitor the system with their smartphones.

Using a weather station funded by the Environmental Protection Agency (EPA) and installed at Missouri S&T’s Solar Village, researchers began work this fall to make the home of the future the home of today, and save homeowners up to 40 percent in the cost of cooling their homes.

Joon-Ho Choi, assistant professor of civil, architectural and environmental engineering, is leading the project with funding from a P3 (people, prosperity, planet) grant from the EPA.

The team will install a small weather station — complete with wind turbine — outside one of the houses at the Solar Village. The weather station will measure the four main factors that impact indoor

climate — solar radiation, air temperature, humidity and wind — and communicate information to a computer inside the solar house. Small sensors will be placed throughout the house to monitor conditions. The data will allow the house to control its own temperatures and conserve significant amounts of energy.

“It takes out the human factor,” says Choi, who predicts that houses will one day be equipped with windows that open and close on their own, depending on weather conditions. “It will enhance human comfort while saving energy without additional cooling.”

Choi’s group will travel to Washington, D.C., next spring to share their results and compete for an additional grant of \$90,000, which would enable them to take the design to real-world applications.

“WE DIDN'T HAVE TIME TO THINK ABOUT IT, WE JUST HAD TO DO IT.”

— *Samantha Welter*

Missouri S&T athletic trainers **Samantha Welter** (left) and **Elizabeth Sisemore** (right).

Story by John Kean, jkean@mst.edu
Photo by B.A. Rupert

COURTSIDE *Lifesavers*

When athletic trainers go through certification to administer cardiopulmonary resuscitation or use an automated external defibrillator (AED), they rarely think they will actually have to use that training in real life.

But on May 23, Missouri S&T athletic trainers **Samantha Welter** and **Elizabeth Sisemore** had to use that training. And their actions saved the life of a man in the Student Recreation Center.

Tom Brown, a regular participant in lunchtime basketball games in the facility, was preparing for a pick-up game that afternoon when he collapsed. Thanks to the immediate response of assistant basketball coach **Joey Goodson** — the first to check on Brown after he fell — and assistant football coaches **Nate Saum** and **Brett Sykes**, Welter and Sisemore were tracked down to attend to the situation.

“Both of us were in the front office at the time and the coaches told us that someone had passed out,” Sisemore recalls. “When I got in there (approximately two minutes after it happened), he was not responsive and was having trouble breathing. Sam went to get the AED device while I started to perform CPR, then when she got back we started a two-person CPR.”

The athletic trainers then used the AED device to deliver an electric shock that restored the heartbeat and revived Brown just before medical personnel arrived.

Welter says it was just a matter of reacting instinctively to the situation.

“We didn’t have time to think about it; we just had to do it,” Welter says. “The whole thing lasted about five minutes, but it felt like it took forever. I will say that everything that happened went the way that it should have. Everyone worked together very well and was very helpful.”

A few days later, the local emergency personnel who arrived on the scene cited the two athletic trainers, both in their second year on the Missouri S&T staff, for their quick response and the use of CPR and the AED.

“The AEDs proved to be 100 percent effective,” Sisemore says. “The devices are very instructive and tell you everything to do, as well as keep a record for medical personnel of all the information while treating someone. This has helped us as well with EKGs (electrocardiograms) so we know more to prevent this from happening in the future. We’ve also added more machines in the facility.” There are now 12 AED devices in the building.

And thanks to the fast action of Welter and Sisemore, Brown will soon be able to return to the basketball court.

S&T athletic program fifth in GLVC in final Director's Cup standings

Missouri S&T's athletic program finished fifth among the 15 institutions in the Great Lakes Valley Conference for the 2010-11 season in the final Learfield Sports Director's Cup standings. The standings are designed to recognize campuses for overall excellence in intercollegiate athletics.

S&T finished 92nd overall among the 284 NCAA Division II institutions, putting it in the top one-third of all schools in the division. S&T scored points in five sports in NCAA championship competition during the most recent year, earning points in men's soccer, swimming, women's basketball, men's track and field and baseball, with the ninth-place finishes recorded by the swimming and men's soccer teams being the highest among them. S&T finished with 213 points overall.

Miner soccer team in national rankings

On the heels of a season in which it won a share of the GLVC regular-season championship and reached the title game of the NCAA Division II Midwest Regional, Missouri S&T's men's soccer program began the season among the top teams in the pre-season rankings.

The Miners landed a No. 13 national ranking in the pre-season for Division II by the National Soccer Coaches Association of America. S&T also finished 13th in the final national poll a year ago.

The Miners were ranked second among the teams in the Midwest region behind Northern Kentucky University. The only other regional team in the pre-season Top 25 is Ashland, a team the Miners defeated in the opening round of the regional tournament last season.

Former Miner on gold medal-winning team at World Championships



Former Missouri S&T offensive lineman **Brandon Jordan**, BAdm'09, played this summer on the U.S. national team that won the gold medal at the fourth International Federation of American Football Senior World Championships in Australia.

Jordan was an offensive tackle for the Miners from 2007 to 2009 and was a two-year starter for S&T. He was a starter during the 2008 campaign, when the Miners won the Great Lakes Football Conference championship as part of a record-setting 7-4 season. Missouri S&T posted its highest modern-day total of 408 points during that season.

Team USA won the tournament by defeating Canada 50-7 in the championship game for its third straight title. Prior to that, Team USA defeated Australia 61-0, Germany 48-7 and Mexico 17-7 to reach the championship game.

1000

The Miners took the field for the 1,000th time during Homecoming in October. For a look at 100 highlights from Miner football history, go to sports.mst.edu.

Sports shorts

Missouri S&T was named the GLVC's recipient of the NCAA Division II Community Engagement Award of Excellence for the 2010-11 season. The Miner athletic program was cited for its Military Appreciation Day activities during an October 2010 football game against Urbana University. One institution from every Division II conference and one conference as a whole were recognized by the NCAA for work to build bridges in their communities. Each institution that won an award received \$500 from the NCAA.

Brett Vessell, BSci'11, who earned All-America honors last spring at the NCAA Division II Track & Field Championships as a member of S&T's 4x100-meter relay team, has been named as a recipient of an NCAA post-graduate scholarship for the 2010-11 academic year.

S&T's swimming and volleyball teams were honored by their respective national governing bodies for their work in the classroom. The swimmers were the second-highest ranked team among Division II institutions on the College Swimming Coaches Association of America's team, while the volleyball squad was among 57 schools in Division II to record a team grade point average of 3.30.

HOMECOMING WEEKEND



OFF THE
GRID



Sarah Bax, a senior in civil engineering, was crowned Homecoming Queen. **John Van Gels**, a senior in petroleum engineering, was named Homecoming King.



» 2011 AWARDEES SELECTED BY THE MINER ALUMNI ASSOCIATION

At the Miner Legends Banquet during Homecoming, the Miner Alumni Association honored a select group of alumni for their accomplishments and their devotion to the association, the campus and students. Selected from an impressive list of nominees, these awardees represent some of our most talented and dedicated alumni and faculty.



Some of the 2011 awardees, as selected by the Miner Alumni Association, are (from left) **Michael D. Hurst**, CE'74; **Jeffrey Volz**, assistant professor of civil, architectural and environmental engineering; **Michael Bytnar**, ME'68, MS EMgt'73; **James R. Friend**, AE'92, MS ME'94, PhD ME'98; **Richard Straeter**, PetE'83; **John Gibson**, EMgt'74; **Natalie Vanderspiegel**, CerE'02, MS CerE'04, MS EMgt'04; **Kenneth Cage**, ME'63, MS NucE'66; **Jane Diecker Accomando**, NucE'03; **Douglas Ludlow**, professor of chemical and biological engineering; and **Roger Truitt**, ChE'71. The list of awardees appears at right and on page 35.

AWARD WINNERS

ALUMNI ACHIEVEMENT

- **Kenneth Cage**, ME'63, MS NucE'66
- **Roger Truitt**, ChE'71
- **John Gibson**, EMgt'74

ALUMNI MERIT

- **Michael Bytnar**, ME'68, MS EMgt'73
- **Richard Straeter**, PetE'83

ROBERT V. WOLF OUTSTANDING ALUMNI SERVICE

- **Michael D. Hurst**, CE'74

FRANK MACKAMAN ALUMNI VOLUNTEER SERVICE

- **James L. Foil**, CE'74, MS CE'75

DISTINGUISHED YOUNG ALUMNI

- **Jane Diecker Accomando**, NucE'03
- **Lister Florence**, CE'95, MS IST'06, CSci'07
- **James R. Friend**, AE'92, MS ME'94, PhD ME'98
- **Natalie Vanderspiegel**, CerE'02, MS CerE'04, MS EMgt'04

CLASS OF 1942 EXCELLENCE IN TEACHING

- **Eric S. Bryan**, assistant professor of English and technical communication

OUTSTANDING STUDENT ADVISORS

- **Randall Lewis**, instructional lab coordinator, mechanical and aerospace engineering
- **Douglas Ludlow**, professor of chemical and biological engineering
- **Joe Jackson**, coordinator of residential life
- **Jeffrey Volz**, assistant professor of civil, architectural and environmental engineering

WELCOME HOME



« KAPPA DELTA

Kappa Delta has a new \$3.1 million home on the corner of Pine Street and Bishop Avenue. The partially brick building has a high vaulted ceiling over the entry way.

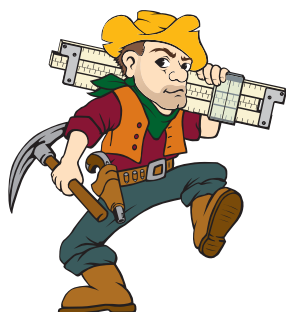
KAPPA SIGMA »

Kappa Sigma recently completed a 9,000-square-foot addition to its house. The \$5 million renovation of the white house includes geothermal heating.



« SIGMA PHI EPSILON

Sigma Phi Epsilon recently completed a \$3.3 million renovation of its house, which was originally constructed in 1970. Its facade is constructed with stone pillars, a tan exterior and the traditional red door.



Miner Alumni Association

The association proactively strives to create an environment — embodying communication with and participation by Miner alumni and friends — to foster strong loyalty to the university and growth of the association. The association represents and serves more than 50,000 living graduates and former students.

Today's association carries on the proud tradition of support to Missouri S&T, providing more than \$500,000 in annual aid to campus students, faculty and staff.



STAT hosts opening week barbecue

Students Today, Alumni Tomorrow (STAT), the alumni student organization, hosted a free barbecue during its first meeting of the year. On Wednesday, Aug. 31, more than 60 students enjoyed grilled hamburgers and hot dogs and received information about STAT.

STAT member Lucas Wessel (left) of O'Fallon, Mo., a senior in nuclear engineering, and vice president Matthew Crinnian of Webb City, Mo., a junior in nuclear engineering and economics, work the grill.

104th Best Ever St. Pat's Celebration



All alumni, their families and guests are invited to attend the St. Pat's pre-parade party from 8:30-11 a.m. on

Saturday, March 17, in the lobby of Leach Theatre in Castleman Hall, 10th and Main streets.

Stop by to visit with your fellow Miners. Complimentary coffee, juice and cinnamon rolls will be served. Beer, Bloody Marys and Mimosas will be available at a cash bar.

Immediately following the St. Pat's parade, all alumni, their families and guests are invited back to Castleman Hall for pizzas and \$1 beer until 2 p.m.

Make plans to travel to Rolla for St. Pat's or attend one of the section events in your area.

Help make the 104th celebration the Best Ever!

Nine student groups receive funding

The student organization funding subcommittee of the Miner Alumni Association's Student and Young Alumni Relations Committee awarded \$2,250 to the following student organizations for fall 2011 projects:

- Blue Key Honor Society
- Campus Ministries Association
- Concrete Canoe Student Design Team
- Engineers Without Borders
- Hydrogen Design Solutions
- Newman Center
- Society of Women Engineers
- Solar House Design Team
- Zeta Tau Alpha

We want your section news

Submit your section news by Jan. 31, 2012, to alumni@mst.edu for inclusion in the Summer 2012 issue.
Looking for a section event?
Visit mineralumni.com.

Alumni take leadership roles in association

During its annual Homecoming meeting on Oct. 8, the Miner Alumni Association approved the following new and returning members:

Directors-at-large:

Jon Schneider, AE'87
Michael McEvilly, CE'80, MS EMgt'81

Area 5:

Dawn Stufft, GeoE'99

Area 6:

Art Giesler, ME'77

Area 8:

Tom Feger, CE'69

Areas 10-18:

Polly Hendren, EMgt'73
Dan Bailey, GeoE'03, EMgt'05

Thank you to the following members of the Miner Alumni Association board of directors for their dedication and loyalty to the alumni association and Missouri S&T. They have completed serving two consecutive elected terms, per the bylaws:

Directors-at-large:

Helene Hardy Pierce, EMgt'83, will continue as chair of Faculty, Staff and Volunteer Relations
John Remmers, MetE'84

Area 5:

Henry Brown, CE'68

Areas 10-18:

Mary Lou Legsding, EngI'90

Scholarship Golf Tournament - St. Louis

June 25 — Scholarship Golf Tournament — Wolf Hollow Golf Club — Labadie, Mo.

The tournament raised \$1,200 for the St. Louis Section Endowed Scholarship for S&T students. Thank you.

First-place Team, A flight:

Bob Buechel '73; Roger Kramer '73, '76; Randy Lang '73; and Rod LeGrand '74

First-place Team, B flight:

Jim French; Sue Graf '83; Joe Norris '82; and Dave Suiter '74, '99

Second-place Team, A flight:

Kent Goddard '81; Tom Moriarty; Steve Figueroa; and Steve Ronekamp

Second-place Team, B flight:

Ron Kelley '86; Chuck Hintze; Jack Whitson; and Dave Guyman

Closest to Pin:

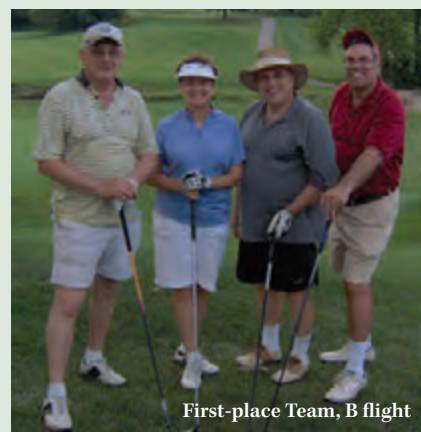
Bryan Bell '88; Matt Bright; Mary Fischer; and Steve Ronekamp

Longest Drive (men's):

Ron LeGrand '74

Longest Drive (women's):

Mary Dierker



First-place Team, B flight

Major Sponsors:

Brinkmann Constructors and Cochran

Volunteers:

Randy Dreiling '81; and Brenda Liescheidt '78

SECTION AWARD RECIPIENTS 2011

Additional awards presented during Homecoming 2011 include:

- Alumni Admissions Ambassador Award, presented by the admissions office: **David J. Bufalo**, CE'66:
- Outstanding Section Award: **Kansas City Section** (for serving approximately 3,500 alumni in the Kansas City area)
- Phoenix Award: **Rocky Mountain Section** (for increasing young alumni involvement, recruiting efforts and hosting an outstanding St. Pat's event)



David J. Bufalo, CE'66, accepts the Alumni Admissions Ambassador Award from **John Eash**, AE'79, MS EMgt'90 (left), president-elect of the alumni association, and Missouri S&T interim Chancellor **Warren K. Wray** (right).

Student Send-off Parties

Alumni and friends gather around the country, from Alaska to Florida, to send S&T students off to Rolla in style.

Air Capital

July 23 — Wichita Wingnuts Baseball Game — Wichita, Kan.

Sean Daly '96; Charles Davis IV '01; John Goethe '92; Craig Goodloe '04; Victoria '99, Anthony '98, Annabelle and Lillian Mattingly; and Tim McLaughlin '98.

Dallas-Fort Worth

July 24 — Irving Sweet Tomatoes — Irving, Texas

Glenn '83 and Mindy '84 Brand; Chuck Briggs '84; Gregory Copeland '77; Nicholas Eplin; Gary '62 and Judy Havener; Jerry Kettler '65; and Eric '96, Tara and Lucy Link. Missouri S&T representatives: Katie Layman and Laura Hall.

Alaska

Aug. 2 — Home of Von '78 and Jan Cawvey — Anchorage, Alaska

Randolph Alldredge '97; Kayla Billadeau; James '78 and Jan Cawvey; Zachary Cawvey; Dale and Jan Knutson; Harold Schafer '97; and Theresa Williams '98. Missouri S&T representative: Paula McBurnett.

Driftless Section

July 23 — Golf Tournament and Student Send-Off — Decorah, Iowa

Michael Allen; Patrick Alan '87 and Shannon Barrett; Sarah Ann '97 and Grant Johnson; Chris Lehman; Larry Leljefeld; Adam Lewis '04; Kurt '85 and Joan Oakes; Jon Olson; Arthur Reckinger Jr. '62; John Schillie '98; Dan Wenzel; and Linda Wenzel.

Bay Area

Aug. 6 — Frankie, Johnnie & Luigi Too! — San Jose, Calif.

Thomas Harrison '74; Kyle '04 and Lisa Marie '04 Lampe; Don '72 and Mira Lee; Dennis '76, '77 and Pamela '75 Leitnerman; Donald Marsinkavage '62; Donald Packwood '63; and Devin Shannon.

Houston

July 23 — Home of Lori Stapp Crocker '88 — Houston

Andrew Adams '11; Alycia Ahrens '01; Laurel Black; William '73 and Carolyn Brune; Jeffrey Buck '77; Amanda Cook; Lori Stapp Crocker '88; Michelle and Rhonda Ekholm; Patrick Gaidos '07; Kevin '80 and Dorothy Hagan; Marcus Hayer '10; Alison Ibendahl '05; Ryan, Jeff and Terry Layne; Drew, Sandy and Nadine McNeely; James '67 and Carolyn Medlin; Whitney Metcalf '11; Thomas '91 and Yvonne Miller; Matthew Rankins '10; Jeffery '82 and Mary '82 Simmons; Gregory '85, Della and Austin Skannal; Jonathon Stocker; Julia Valles; Monika Benavides; Spyros '55 and Noura Varsos; Erica, Greg and Pam Wellen; and Carla Yager '79. Missouri S&T representatives: Katie Layman and Laura Hall.

Chicago

July 17 — Whitlock Park — Downers Grove, Ill.

Daniel '06 and Katherine '06 Aiken; Jan Christian; Ronald Fadler '72; Heather and Joe Ferstl; Cory Gilliam; Phillip Johnson '59; Tyler Losik; Stephan '99 and Laura Magenta; Michael '77 and Laura '77 Marx; Janice '95, Dave, Jessica, and Daniel Mattox; Joe and Beth Munder; Katie, Pete and Sandy Nelson; Elizabeth and Sue Nolte; Cullen and Louise O'Farrell; Sean Padgett; Shannon, Martin and Dena Phalen; Michael Smith; Ben and Brenda Tullis; Chad White '01; Carter Wilson; and Adam Zywicki. Missouri S&T representatives: Katie Layman and Courtney Wallace.

Kansas City

July 23 — Home of Jim '74 and Ann Foil — Lee's Summit, Mo.

Laura '02 and Robert '03 Agee; Don '83, Eva '83, and Ethan Arndt; Kenneth '97, Cindy, Austin, Leanna, Ashlyn and Nichole Brandelier;



Bay Area Section



Dallas-Fort Worth Section



Springfield Section

Lucien Bolon '59; Kimberly Curry '86; Laura Davies '02; Richard DeNise '59; Taylor, Roger and Karen Dieckmann; Thomas Duncan; Kevin Eisenbeis '79; Don Flora; John Frerking '87; Barbara '81, Jeff and Kyle Henson; James '59 and Karen Henson; Laura '85 and Randy '82 House; Michelle '01 and Brad Hunt; Jason '02 and Shannon '02 Jeffries; Paul '94, Jennifer, Kyle and Cameron McCormick; Michael '81 and Cindy McMenus; Mark McNeal Jr. '09; Victor Poland '94; Joseph '59 and Mary Reichert; Richard Riegel '72; Linda Skouby '87; George '74 and Joy Stegner; Dan and Mary Sturdevant; Anan Takroori; Patrick '88, Cheryl and Benjamin Toby; Jim VanAcker '98 and Erin Glossip; and Mike Welsh '67. Missouri S&T representatives: Bob Phelan and Marianne Ward.

Lincolnland

Aug. 7 — Home of Rich '69 and Carolyn Berning — Springfield, Ill.

Richard '69 and Carolyn Berning; Mark Cooke '08; Lynn '68 and Judy Frasco; Elaina Hodges; Melissa Hodges; Gerald '64 and Marilyn Hoppe; Matthias Hughes; Matt and Brenda Hughes; Keith and Rhonda Laughlin; Edward '69 and Anne Midden III; Jerry '70 and Mary Parsons; Zach Russell; Mike, Deana and Colin Ryan; Benjamin Ryherd; John '81, Rebecca and Jonathan Schmidt; Elizabeth Skeens '08; Willard Sudduth '66; John '69 and Paula Wiesenmeyer; and Amanda '99, Andrew, Logan and Leita Withers. Missouri S&T representative: Katie Layman.

Motor City

July 30 — Home of Dale '79 and Debora Morse — Milford, Mich.

Taylor Arrington; Ronald '78 and Monica Baker; Andrew Christian '04 and Tessa '04 Baughman; Amanda Beymer; H. Joseph '97 and Will Dickerson; Wendy '89, Anna and Lexi Eckman; John Gannon; Jason Gassel; Jeffrey '95 Hickman; Christine Keener; Joshua Marshall; Dale '79 and Debora Morse; Rebecca Mullen; Clark Potzmann '70; Erika '99 and Lane '99 Rezek; Nancy '83 and Harry Salisbury; Daniel Saylor '99; Rebecca Steinman '96; Chris '85 and Carlita Thomason; Dawn Willis '02; and Zachary Willoughby.

NE-IA

July 16 — Home of Mike '99 and Kate Carlson — Omaha, Neb.

Mike '99 and Kate Carlson; Collette Galaske '06; Andrew Lozier '06; Steve '70 and Kathy Masters; Patricia '00 and David Rohan; Daykin and Riney Schnell; Aaron '02 and Jen Smith; Amy '91 and Thomas '90 Tokos; and Matthew Vandergriff '98.

Northern Alabama

June 9 — Dinner and Baseball Game, Joe W. David Stadium — Huntsville, Ala.

Rob '95 and Rebecca Alferink; James Carter '66; Christian '95 and Christina '95 Cook; Allen Crider '80; Jon '93 and Audrey '93 Fox; Jason '96 and Valerie '98 Holschen; Jim '75 and Dorothy Keebler; Kendra King '06; Tom '66 and Bobbie Meier; Jeff Obermark '91; Alex '98 and Erica Storms; and Richard '73 and Roslyn Taylor.

Rocky Mountain

Aug. 6 — Home of Dave Bufalo '66 — Denver

Cynthia '90 and Michael Brunstein '90; David Bufalo '66 and Cynthia Powers; Joshua '04, Rebecca '04 and Tonya Dirksen; Robert Dorroh III '70; Brian '07 and Melanie '07 Ewert; Kurt Haslag '07; Kyle Lampe '04; Robert Martin '49; Ruth Nickoley; Erin '05, Joshua '05, Rhea, Kaelin and Zane Sneller; Michael Steffens '73; and Jeff '79 and Ann Walker.

Springfield

July 30 — Cardinals Baseball game — Springfield, Mo.

Mark Foley '79; Brandon Freeman '08; Michael '83 and Michele Fritz; John '72 and Charlotte George; Jerry Gilmore '60; Keith '93 and Jan Howdeshell; Richard Kellermeyer '59; Charles Klump '86; Dustin Mitchell '07; Roger Phillips '74; Stephen '98 and Amie '98 Squibb; Terence '65 and Janice Towers; Justin '10 and Diane Zipf. Missouri S&T representative: Marianne Ward.

St. Louis

Aug. 6 — Spanish Village Park — Bridgeton, Mo.

Randall Dreiling '81; Amanda Gilbertson '99; George Holmes; Nicholas LaBarge; Julian LaBarge; Gail Lueck '02; Sarah Moeller; John Moeller; James Nelson '99; Sara Nelson '99; Susan '74 and Sandy Rothschild; Julian Smith; and Jessica Ward. Missouri S&T representative: Marianne Ward.

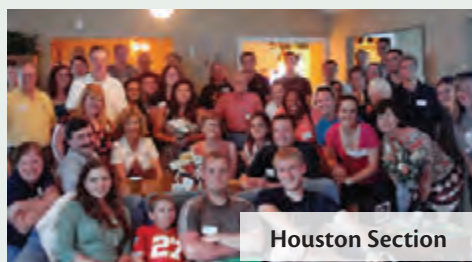
SW Florida

Aug. 6 — Columbia Restaurant — Tampa, Fla.

George Buck '50; Brennt Courtney; Steven Jr. '86, Michelle, Grant and Lydia Frey; Bennett '64 and Jewell Muns; Olin Raby '66; David '80, Kathy '83 and Tim Schmitt.



Kansas City Section



Houston Section



Lincolnland Section

Frank H. Mackaman Outstanding Section Volunteer Awards

Miner Alumni Association sections recognize their own members through the Frank H. Mackaman Outstanding Section Volunteer (Little Mack) award for distinguished service to the section.

Recipients of the Little Mack 2011 are:

- **Driftless:** Arthur "Art" Reckinger '62
- **Falls of the Ohio:** Bob Morfeld '69
- **Kansas City:** Richard "Dick" Riegel '72
- **Lincolnland:** Dan Kerns '74
- **Motor City:** Tracy Cruts '88
- **Rocky Mountain:** Randy Kerns '74

prospective student reception

Dallas-Fort Worth

Aug. 4 — Richardson, Texas
Glen '83 and Mindy '84 Brand; Jim Colliton '78; Rick Erder '75; Jerry Kettler '65; and Ken Link '68.
Missouri S&T representative:
Laura Hall.

Alumni, family and friends gather in 58 sections around the world. Here is a glimpse of their activities.

falls of the ohio

June 17 — Louisville Bats Baseball Game — Louisville, Ky.

Dirk '91 and Nickie Gowin; John '63 and Carola Lina; Ray Maag '50 and daughter Karen; Tom Phillips '62; and John '52 and Scott Robertson.

flint hills

July 22 — Kansan Grill — Topeka, Kan.

Dave Freise '77; Gene Russell Sr. '58; Tom Shepard '67; and Donald Taylor '73. Missouri S&T representative: Marianne Ward.

motor city



June 28 — GM 2011 Interns, Co-ops, New Hires — Home of Dale Morse '79 — Milford, Mich.

Taylor Arrington; Andrew Baughman '04; Tessa Baughman '04; Amanda Foster; Travis Frazier '10; James Holtgreven; Kathleen McKinley; Dale Morse '79; Jason Nolte '05; Emily Otto; Kayla Scharr; Natalie Shanklin '07; Nathaniel Wilke '07; and Zachary Willoughby.

rocky mountain



July 9 — Sky Sox Baseball Game — Colorado Springs, Colo.

Ed Benn '63; David '63 and Judy Bondurant; Ann '84, Joel '86 and Tabetha Brand; David Bufalo '66 and Cynthia Powers; Derek Dotson; Brian '07 and Melanie '07 Ewert; Daniel Feighery '07; Natalie Foster '04; Sarah Grant '08; Kurt Haslag '07; Bryan Kemper '05; David '07 and Lindsey '07 Longrie; Doug Miller '90; Tom Nicholson '68; Tom Smith '58; Erin Sneller '05; and Zach Troesser.

st. louis



July 23 — Dinner and Races — Collinsville, Ill.

Bob '83 and Karen Baumgartner; John '56 and Abida Brawley; Jeremy Buchanan '93; Adam '10, Barb and Eric Doerfler; Randy Dreiling '81; Tom Graves '73; Tim '79 and Julie Guethler; Melvin '78 and Shirley Heisserer; Robert '66 and Cathy Hogue; Mel '61 and Sharon Ingram; Mark '76 and Maureen Liefer; Greg '90, Laura '92, Sydney and Madison Maes; Cheryl Miles; Milt Murray '66 and Sharon Panian; Loy '66 and Sharon Roberts; Robert '93 and Rita Schaffer; Dale '56 and Barbara Schillinger; Tim '90 and Faith Schroeder; Irv '71 and Vivian Siegel; William '58 and Carol Weeke; and Al '57 and Joan Wentz.

Bob and Ginny Pahl

Bob Pahl, ChE'68, MS ChE'70,

PhD ChE'74, was a student in Rolla when the "Old Chem" building burned in the late 1960s and was still a Rolla student when a new building was constructed in the early 1970s.

"In the almost 40 years since the new building appeared, time has taken a toll on both the old and new buildings," Pahl says. "The labs are falling behind the times and more space is needed."

Pahl and his wife, **Ginny**, recently contributed \$250,000 toward construction of a new chemical and biological engineering building at Missouri S&T. The university plans to name the building for **Jim Bertelsmeyer**, ChE'66, who gave the lead gift for the project.

The project is an important one to the Pahls.

"Ginny and I felt strongly about the need for the new building and the value that Missouri S&T provided to me in my career," says Pahl, who retired in 2004 following a 30-year career with Phillips Petroleum. "The new building will help the chemical and biological engineering department become one of the best in the nation."

Pahl says he and Ginny are a part of the Missouri S&T family and want to help in any way they can. And help they have. A member of the Academy of Chemical Engineers, Pahl has coordinated reunions for his class, recruited for Phillips and spoken at campus lectures. Ginny is on the board of directors for the Order of the Golden Shillelagh and Pahl is on the Provost's Engineering Advisory Board.

"We started to give back to the university as soon as we were financially able," Pahl says. "I arrived in Rolla in September 1964 as a wide-eyed freshman in chemical engineering and left nine years later with three degrees, all in that department," Pahl says. "Ginny joined me in 1966 to continue her education in the math department. While she did not finish her degree, we both feel Missouri S&T is 'our' university and continue to support it."

Editor's note: Read more about the new chemical and biological engineering building on page 49.

MISSOURI S&T

Miner Alumni Association

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Rolla, MO 65409-0650

ADDRESS SERVICE REQUESTED

Parents: If this issue of Missouri S&T Magazine is addressed to your son or daughter who has established a separate permanent address, please notify us of the new address: 573-341-4145 or alumni@mst.edu.

Nothing beats a classic

It's no secret Miners love their cars, and there's no better evidence of that than the personalized license plates we see at alumni events around the country.

That's why we're dedicating our summer 2012 *Missouri S&T Magazine* to Miners and their cars.

We want to know your vehicle's make, model and year; how long you've owned it; and why you love your ride.

Email your information to alumni@mst.edu along with a photo of you and your car. We'll select the most interesting stories and vehicles to share.

Michael, ME'68, and Joyce Bytnar enjoy driving their 1967 Chevrolet Corvette Sting Ray.



Photo by B.A. Rupert