Message from Department Head, Dr. Molly Gribb

I’m completing four years as head of the CEE department this summer; it has gone by so quickly, and it has been an incredible experience. Our students and faculty are truly exceptional, and I am reminded of this fact on a daily basis. I am so proud of this department! The CEE department is growing and evolving: our undergraduate student population grew nearly 9% since 2010, and we are adding a new doctoral program in Civil and Environmental Engineering this fall (pending SD Board of Regents approval in June). We said adieu to Dr. M.R. Hansen last spring as he set off to spread the gospel of concrete in Mongolia, Dr. Damon Fick in December as he moved to Montana State, and this May to Dr. Andrea Surovek, as she left the department to pursue other interests (including theater productions). On the bright side, we are excited to welcome two new faculty to the ranks this fall, and look forward to working with them; we know that they will be great! Dr. Venkataramana Gadhamshetty joins us from Florida Gulf State University, where he has been an assistant professor in the environmental engineering area, and Dr. Christopher Shearer recently completed his doctoral studies on advanced concrete materials at Georgia Tech. We will start another faculty search this fall in the structures area.

I’d like to take this opportunity to thank our many loyal alumni, friends and corporate sponsors who contribute to the CEE department to support scholarships, equipment, endowments and other gifts. These generous donations significantly enhance the educational experiences of our students. We just couldn’t do it without you.

-Molly Gribb
CEE Welcomes Two New Faculty Members

The CEE department will welcome two new faculty beginning in Fall 2014.

Dr. Venkataramana Gadhamshtet, PE, BCEE, PGDM, M ASCE (known to students as Dr. G.) will bring his extensive teaching and research experience to our students starting this fall. As Assistant Professor of Environmental Engineering at Florida Gulf Coast University, Dr. Gadhamshtet's research was in bioelectrical processes for treatment of organic wastes and graphene coatings for preventing microbial corrosion. His teaching included introductory and 400-level courses in sustainability and engineering thermodynamics, among other topics. He served as faculty advisor for Engineers Without Borders, and his insight will be surely be welcomed by Mine's own student-initiated organization, Engineers and Scientists Abroad.

Dr. Gadhamshtet's achievements include a long list of research publications and conference proceedings, significant advising and leadership roles, and involvement in various professional organizations, including ASCE. Dr. Gadhamshtet was an ASCE Excellence in Civil Engineering Education (ExCEEd) Fellow in 2013.

Dr. Gadhamshtet received his Ph.D. in Civil Engineering with a concentration in Environmental Engineers in 2007 from New Mexico State University, where he also received his Master's in Environmental Engineering in 2005. He holds an additional Master's degree from the prestigious National University of Singapore, and a Bachelor of Science in Chemical Technology from Osmania University in India.

The CEE department will also be welcoming Dr. Christopher Shearer, who received his Ph.D. in Civil Engineering from Georgia Institute of Technology last May, where he also earned his Master’s in Civil Engineering with a focus in Structural Engineering. Since completing his BSCE from Ohio Northern University with High Distinction in May 2008, Dr. Shearer has already accumulated significant professional and research experience. His dissertation was entitled Productive Reuse of Coal, Co-fired and Biomass Fly Ash, and his peer-reviewed research includes submissions to Feul, ACI Materials Journal, and the Journal of Material Sciences.

Dr. Shearer is committed to his involvement in professional organizations and has been a member of ASCE since joining as an undergraduate in 2004. Formerly the Vice President of Ohio Northern University's ASCE Student Chapter and Concrete Canoe Project Manager, Dr. Shearer's involvement in SDSM&T's ASCE student chapter is something our students are already looking forward to.
Department Head Dr. Molly Gribb Graduates in 2014 ELATE Class of Fellows; Initiates Renewed Planning Process

As one among an elite cohort of senior women faculty in engineering and technology programs from around the country, CEE Department Head Dr. Molly Gribb has successfully completed her tenure as a fellow of Drexel University’s intensive leadership program, Executive Leadership in Academic Technology and Engineering (ELATE) this past spring. ELATE fellows complete a rigorous year-long curriculum encompassing themes in higher education and project management. Best-practice in business dealings, effective communication, and collaboration with diverse stakeholders are emphasized.

Dr. Gribb is applying her ELATE experiences to develop a department-wide strategic plan to complement the university’s Mines 2020 strategic plan and to enhance its implementation within our department. An endeavor informed by Patrick Sanaghan’s Collaborative Strategic Planning, the planning process will incorporate input from stakeholders, including students and alumni. Opportunities to participate are forthcoming.

Foundation Receives New Scholarship Endowment Supporting a Full-Time CEE Student

The School of Mines Foundation was recently visited by Bryce Healy of the Sioux Falls Association of General Contractors of South Dakota (AGC of SD) with a generous donation of to fully endow a scholarship. The Associated General Contractors Scholarship will support a full-time student majoring in civil engineering who is interested in the construction of buildings. The AGC of SD Building Chapter is a leader in South Dakota’s building construction industry and was established with the goal of assisting members to move forward as industry leaders by building on past and investing in the future. The Building Chapter represents over 200 general contractors, suppliers and service firms throughout the state. Formed in 1916 as the Masters Builders Association of the State of South Dakota, the AGC of SD Building Chapter is one of 92 chapters of the 32,000-member Associated General Contractors of America. The partnership between the Mines and the AGC will enhance efforts to recruit top engineering students and build collaborative education and outreach efforts.

Courtesy of the SDSMt-T Foundation

CCEE Research Continues to Grow with Funding Exceeding $8.6M

CEE faculty are involved in a number of interdisciplinary research efforts with collaborators across campus to across the globe. In FY 2014, CEE faculty served as principal investigators or co-investigators on projects totaling over ~$8.6M. Funding comes from a variety of sources, including NSF, DOE, NASA, SD DOT and industry. Research projects provide graduate and undergraduate students with financial support and opportunities to develop their critical thinking, analytical, and writing skills. This year, over 20 undergraduates worked on a wide range of projects with CEE faculty.
**CEE’s Brian Freed Becomes First Ever Hardrocker All-American**

Recent CEE graduate Brian Freed recently became the first Hardrocker to earn NCAA Div. II All-American status after the school’s athletic program made the transition from NAIA last year. Freed earned the status on May 23 when he finished 7th place with a 194-feet-5-inch mark during the men’s hammer throw at the Div. II National Outdoor Track & Field Championships. Freed also holds the school record in both men’s hammer throw and men’s discus.

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**CEE Student Wins First in SDSM&T Undergraduate Poster at Research Symposium**

First place poster category winner Kristen O’Connor presented her research on semi-volatile organic compound (SVOC) emissions, advised by Dr. Jennifer Benning. O’Connor credits her win to placing special emphasis upon communicating effectively with simple terms and clear diagrams. She believes the public impact of research in SVOC emissions was also a significant factor. "I made sure to explain why my research was important to the public. I believe it's important to be able to convey how your research will benefit others,” she explained. This year’s student research symposium was the first to be open to both graduate students and undergraduates. Undergraduate BSCE students Aditya Venkata, Lisa Bailey, Rushang Bhardwaj and Sachith Karunaratna also presented their research at the April symposium.

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**Two CEE Students Receive Campus-Wide Awards for Exceptional Leadership**

Two CEE undergraduates were among the handful of students formally recognized on April 13 at a reception organized by the Student Leadership Association. Sophomore civil engineering student Gina Rossi received an Outstanding Student Organization Member Award for her involvement in Circle K International. She was also the recipient of this year’s Cushman Clark Rising Star Award & Scholarship. The award recognizes a student in sophomore standing who has stood out as a student leader. Spencer Ferguson, who graduated in May, was inducted into the Leadership Hall of Fame along with four other students. Award selection is made with quality in mind, and is meant to reflect the impact generated by the student’s contributions rather than the quantity of leadership positions held by the student. Ferguson, reflecting on the award and his time in our department, shared the following comment: "I am truly honored to be recognized by the School of Mines with this prestigious award... I can sense the compassion that faculty and staff have for the success of their students and am proud to be a Civil graduate from Mines.”
Concrete Conference Draws Students and Professionals Together

The 2014 SDSM&T Concrete Conference was held March 7 on campus. Organized by CEE faculty and students and sponsored by the American Concrete Institute Dakota Chapter, the concrete conference is an annual celebration of concrete practice, construction, and research. Topics discussed included mixture design, low-shrinkage concrete, reinforcement corrosion, crack mitigation, product development, and the reorganization of ACI 318.

The conference is a gathering of professionals and academic experts from different areas of the concrete industry, but it is also an opportunity for students to come together with leaders in concrete. Students learned about the history of concrete and advancements made in the last half-century, explored future technologies, and expanded their contacts with local, regional, and national industry leaders. Professional participants were credited with six professional development hours.

CEE Participates in Girl’s Day Tours & Activities

Each year, the CEE department participates in the School of Mines’ Girl’s Day Outreach by hosting department tours and activities. This year, over one hundred girls grades 6-8 were treated to a welcome address by Dr. Gribb and demonstrations showcasing the steel bridge and concrete canoe. Student volunteers from all departments helped out with many fun and instructional activities, such as building physical models of aquifers using edible ingredients (right) led by Dr. Gribb.

In recent years, the School of Mines has made great strides in boosting the number of women enrolled in SDSM&T’s engineering programs. In fact, female students make up 25% of the undergraduate civil engineering student body, which is above the national average for civil engineering of ~18%. Outreach efforts have contributed significantly to that increase. The creative activities coordinated for Girl’s Day participants are a fun example of the impact that early exposure to the world of possibilities in STEM fields can have, increasing girls’ awareness and interest in engineering and ultimately, increasing campus and workplace diversity.
CEE Undergraduate Megan Brown Shares Perspective on Knitting With Rapid City Journal

CEE student Megan Brown, founder of Mines' very own knitting club, was quoted explaining the virtues of knitting to readers of the Rapid City Journal. Since sacrificing fifth grade recesses to learn how to knit, the activity has become a calming way to just "get away" and an activity that she enjoys sharing with others, the article explains. To read more and view pictures of Ms. Brown teaching fellow Mines students her craft, search “Knitting 101” at: http://rapidcityjournal.com

CEE Graduate Student Tony Kulesa on SDPB's South Dakota Focus: The Future of Infrastructure

MSCE student Tony Kulesa appeared on SDPB discussing the future of infrastructure in the state with South Dakota Focus’ Stephanie Rissler. Among other topics, Kulesa offered commentary relating to sustainability and the shifting focus of civil engineering education, stating, "Back in the early 2000s, sustainability was a niche lesson in curriculums [sic] around the state. Now it's a mainstream lesson that almost every student learns in their senior capstone project." The entire talk is available at: http://watch.sdpb.org/video/2365153088/

Students Bring Steel Bridge to Nebraska High School; Visit Profiled in Local News

The Star Herald, a newspaper serving communities in Nebraska’s panhandle region, published an article featuring a recent visit paid by Mines students and representatives from admissions to physics and calculus students at Scottsbluff High School. Mines students challenged Scottsbluff students to apply their problem-solving skills by assembling last year's steel bridge. CEE student and Steel Bridge Team member Ben Wolf* was quoted explaining the value of such challenges. "That's one of the things that we learn in engineering. There is not always one way to attack a problem. There are multiple ways and you really have to step back and solve that problem the best way that you know." To read more, search “Engineering Students Build Bridges” at: http://www.starherald.com

*We interviewed Ben about his trip for this issue’s feature story (next page).

CEE Research Team Discusses Pine Beetle Impact on South Dakota Water Quality on SDPB's Dakota Midday

How will the destruction wrought by the mountain pine beetle impact water quality in South Dakota? CEE professor Dr. Jim Stone and Mines graduate Heidi Sieverding (MS GEOE '01) explained their research findings to listeners on Dakota Midday. To hear the entire broadcast or access a transcript of the interview, visit: http://listen.sdpb.org/post/impact-pine-beetles-water-supply
Last fall, CEE Undergraduate Ben Wolf returned to his hometown to relay his experience at Mines, part of a broader personal mission to help expose young people to challenges and opportunities in engineering.

Senior Ben Wolf has travelled with admissions before, but last fall he had the special opportunity to return to his hometown in Gering, Nebraska to challenge students with fun activities and share his insights about what it takes to become an engineer. In the process, he had the occasion to tell students about all kinds of special opportunities afforded to students at the School of Mines, in our department, and more broadly, in the field of engineering. We chatted with him about experience representing our school and our department.

**Student Profile**

**NAME:** Benjamin Wolf  
**YEAR:** Senior  
**CONCENTRATION:** Structural  
**INVOLVEMENT:** Lamda Chi Alpha, ASCE, Concrete Canoe, Steel Bridge  
**PLANS FOR 2015:** Return to SDSM&T to complete his MS CENE Degree

**Q: How did you get involved with admissions?**

A: I got involved with admissions a couple years back. The steel bridge team took a trip to Pierre, South Dakota with Molly Frankl (SDSM&T director of admission) and two years ago ASCE went on a similar four-day trip to Sioux Falls. Knowing they'd done the admissions trip in the past, I just went in to talk to them about taking our CAMP teams and exposing more students to engineering.

**Q: What have you enjoyed most about the experience?**

A: Some of the things I have enjoyed the most are some of the activities that we do. We do simple ones such as giving students two sheets of paper and 10” of tape and challenging them to build the tallest structure they possibly can. Seeing the way that they attack the problems we give them and work in teams to fix them is really interesting to me. I love to see how much they enjoy those activities and how much they learn.

**Q: What value do these trips provide?**

A: When I was in high school we weren’t really exposed to engineering; our guidance counselors didn’t know much about it. Being able to go back home and teach high schoolers what engineering is,
Q: What value do these trips provide? Cont.
what the different majors are, and what this school has to offer was huge. I think they got a much better understanding as a result. As for admissions, [traveling with the steel bridge] means being able to expose [prospective students] to engineering—and not just talking about it but being able to see the steel bridge and put it together—these trips become a lot more hands-on and become a better, more positive experience for the students. As a result, I think students are more likely to remember it and look into the school. But for us, the students that go on these trips to teach the younger high schoolers, we really learn that the communication skills—the intangibles of being able to speak with people and teach them something—are really important and that those skills are very valuable as far as success in industry goes.

Rushing to aid team members during the timed construction portion of the steel bridge competition.

Ben Wolf (far right) and fellow bridge members showing off the "Rainbow Road," last year's steel bridge.

Q: What kind of things do you emphasize to students who may be interested in engineering and potentially civil and environmental engineering at Mines?
A: I think something our department does really well is a lot of hands-on learning. If you look at some of the bigger schools you really don't get the value of the hands-on learning from your professors, or the benefit of them learning your name. One of the stories I like to tell is about when I was a first year student trying to find my way around our department building. I was walking down the halls looking for my advisor and I ran across Dr. Fontaine. At the time I didn’t know who Dr. Fontaine was but he actually knew my name! Another value I think that we get here are the many opportunities that we get as students to go to competitions or travel or go to conferences that other schools don't offer. I myself have been to...what is it now?...four ASCE conferences and two national competitions for Steel Bridge. I've been to two or three different conferences as well as traveled abroad with another organization. There's a lot of opportunity if you're willing to get involved. ♦
A Fine Year for Canoe & Bridge Teams

The SDSM&T ASCE student chapter placed 2nd overall out of 14 schools at the 2014 ASCE Rocky Mountain Regional Conference, hosted April 3-5, 2014 by Colorado State University in Fort Collins, CO. The conference consisted of seven different student competitions advised by CEE Professor and faculty advisor Dr. Bora Cetin and steel bridge advisor Dr. Andrea Surovec.

Our chapter took 2nd place in the Can-struction competition. At the close of the conference, all of the food used for Can-struction was donated to local food banks for distribution to pantries, shelters, soup kitchens, and elderly and day care centers. SDSM&T students collected approximately 2,600 cans! The Steel Bridge Team finished in 3rd place overall, and continued onto nationals in Akron, OH in May. The competition requires students to design, fabricate, and construct a steel bridge which is scored on efficiency, measured by weight and stiffness, and economy, measured by construction speed. This year our team scored first in display, efficiency, and stiffness.

The Concrete Canoe Team placed 8th overall but we put together a beautiful canoe and finished third for final product. This year’s theme for the canoe was Black Hills Pearl based on the Black Hills and Pirates of the Caribbean. The concrete canoe competition requires students to design and construct a concrete canoe that is judged on a design paper and presentation, appearance and conformance to specified dimensions, and speed in sprint and endurance races.

The Concrete Canoe and Steel Bridge Teams are part of the Center of Excellence for Advanced Manufacturing and Production (CAMP), a student-centered, hands-on engineering program. A key part of the CAMP experience involves designing, building, testing, and competing in a variety of engineering challenges. The program actively combines technical with soft skills through fundraising, planning, deadlines, and international competitions where the teams test their mettle against universities from around the world.
Steel Bridge Team Among Nation's Elite

The SDSM&T Steel Bridge team competed in their 7th National bridge competition at the University of Akron, OH, May 23-24. While the team has not yet met their goal of a top-10 finish, their consistent advancement to the national competition places them among the nation's elite teams. Over 200 colleges and universities compete every year: only 10 other teams have qualified 7 of the last 8 years (and only 3 have qualified 8 in a row.) To qualify, the SDSM&T Steel Bridge team has placed in the top three in their region, which includes 13 other teams. SDSM&T is the only team in the region with a consistent record of qualification for the national competition. Their perennial status at Nationals puts them in the company of such schools as MIT, Cal Berkeley, and Georgia Tech and well ahead of any school in the region.

Students involved on the bridge team have an opportunity to develop exceptional teaming and problem-solving skills. Last year’s team captain, Brian Ruppelt (who is now a student in our civil and environmental engineering master's program), put it well when he stated, “Of all the education I have gained so far, nothing can replace the excellent experience gained during the five years of my active involvement with the SDSM&T Steel Bridge team.”

This year’s SDSM&T Steel Bridge team members are pictured below at the 2014 National Student Steel Bridge Competition at the University of Akron, including Kathleen Ryan, Megan Brown, Chelsey Herber, Cody Lorenz, Brandon Dike, Nick Claggett (captain), Drew Vance, Ben Wolf, Brian Ruppelt, Kevin Barry, Kirk Ekhle, Abby Fleck and Kyle Cary (captain). Dr. Andrea Surovek was the faculty advisor.

The Steel Bridge team and our department extend their thanks to the many Steel Bridge donors. Our team’s success would be impossible without your support!
Update from Engineers and Scientists Abroad

Another school year has concluded, but members of Engineers and Scientists Abroad (ESA) are still active! Last semester, ESA members completed a rainwater harvesting and landslide prevention project in Bogotá, Colombia, and went to Cieneguilla, Perú and Pine Ridge, South Dakota to survey and prepare for upcoming projects.

On May 12, two ESA teams ventured out of the country for two, one-month-long engineering projects and cultural exchanges. One group travelled to Mongolia to repair a bridge and the other group returned to Chile as part of an ongoing relationship with an orphanage near Vicuña.

The excitement continues in September, 2014, when ESA will host a group of engineering students from Pontificia Universidad Javeriana in Bogotá, Colombia. These students will help us move forward with our housing project for the Pine Ridge Reservation. To cap off the fall semester, ESA hopes to send another crew down to Cieneguilla, Perú during our Christmas break in January 2015 to install water distribution infrastructure and explore solar energy upgrades for the Westfalia Kinderdorf Orphanage. In addition, ESA is in the development stages for two other projects in Zambia and India for summer 2015.

Notes on ESA's Peru Trip (pictured)

ESA sent an exploratory team to an orphanage near Lima, Perú over spring break. The group of three SDSM&T students met up with another SDSM&T student from Bogotá and two members of the Pontificia Universidad Javeriana’s student group Ingeniería Sin Fronteras, ISF (Engineers Without Borders), a result of previous collaboration and a growing relationship between the two student organizations. The team was hosted by and worked with an expatriate mechanical engineer living in Cieneguilla, Perú, near the Westfalia Orphanage founded by a German humanitarian aid group in 1977. The orphanage’s water distribution system is struggling, so ESA made this visit to meet the engineer, walk-down the orphanage, survey design elevations for a new water distribution system, and assist with the hydraulic engineering for the necessary improvements. The group of six students spent three days on-site and two more days in the area working on calculations and learning about the issues with the existing system. The project trip resulted in valuable topography information and insight to help our students design an improved water distribution system to feed the 150 people living at the orphanage. Plans are already being made for an ESA team to partner with Rotary International and another team from ISF to return to Perú in January of 2015.
Two CEE Alumni Among Five Recognized at 168th Commencement Ceremony

Jeane L. Hull (CE ’77) (pictured center) and Lawrence G. Schmaltz (CE ’79) (pictured far left) were among five recipients of the 2013 Distinguished Alumni Award. Both attended last December’s 168th Commencement Ceremony to receive the honor. Co-sponsored by the Alumni Association and the SDSM&T Foundation, the award is presented each year at the Fall graduation, with nominations evaluated according to four criteria: level of professional achievement, evidence of significant and creative professional activity, involvement in professional or business organizations, and balance of community and professional services and awards. The CEE department is fortunate to count such high-achieving and public-spirited individuals among our best graduates.

Vanessa Victor Named CEE Outstanding Recent Graduate

In recognition of her considerable achievements since her time as undergraduate in our department, Vanessa Victor, PE (CE ’05) was honored as one of Mine’s Outstanding Recent Graduate awardees at the 57th Annual Alumni & Friend’s Recognition Event.

Ms. Victor recalls her time at Mines fondly. "To this day, I still smile when I look back on all the time spent in the Steel Bridge and Concrete Canoe labs." A 3rd generation civil engineer, she received her BSCE in 2005 and earned her master’s degree from Portland State University. As a Senior Structural Designer for the Office of Bridge Design at Union Pacific Railroad she was one of two engineers tasked with the replacement and rehabilitation of structures located in the Western U.S. In 2011, she received the UPRR Engineering Recognition Award. She currently manages the Watertown location of Clark Engineering Corporation and is in charge of project management for bridge and transportation related projects. She was recently made an Associate at Clark Engineering. Of her experience as a student in our department, she recalls, "The faculty, staff, fellow students and alumni ensured that my education was unparalleled and challenging." She added, "I truly value the solid foundation I received from SDSM&T."
Bill DeGroot Retires: "Helluva Engineer"

Bill DeGroot, PE, FASCE, (CE ’69, MSCE ’74) was recognized for 40 years of service as Administrator and Manager of the Floodplain Management Program for the Urban Drainage and Flood Control District (UDFCD) at a festive February 6, 2014 retirement reception. The event, held at History Colorado Center, was attended by over 150 Denver metro-area elected officials, engineering professionals, UDFCD staff, and friends.

A “By the Decades” presentation featured speakers highlighting notable events and timeline features – beginning with Bill’s combination job interview/honeymoon trip to Denver in 1973. The UDFCD Board of Directors presented a resolution in which Bill was recognized for his esteemed 40-year career and his commitment to the support of professional organizations, fostering of critical relationships throughout the floodplain management community, and professional activities which brought him and the District national recognition. Finally, the District expressed its sincere gratitude for Bill’s invaluable contributions and heartfelt thanks for his years of peerless performance and dedicated public service.

The massive September 2013 Colorado Front Range rains and flooding were described with commentary on how the District’s and Bill’s years of commitment to floodplain management had helped mitigate what could have been severe damage and destruction. Bill became interested in floodplain management while in graduate school at SDSM&T immediately after the devastating 1972 Rapid City flood. The Urban Drainage and Flood Control District was created by the Colorado legislature in 1969 to assist local governments in the Denver metropolitan area with multi-jurisdictional drainage and flood control problems. The District covers an area of 1608 square miles with a population of ~2.3M people.

Courtesy of Marty Amble (CE ’68)

Former Department Chair
Wendell Hovey Passes

It is with regret that we write Wendell Hovey, former department chair, has passed away. An excerpt of the following obituary, originally published in SDSM&T Foundation Legacy News, is reprinted here in honor of the legacy of his twenty years spent as a vital member and leader in our department.

“Wendell Harris Hovey, loving husband and proud father, passed away unexpectedly at home. He leaves behind his wife, of 39 years, Sydney Ann Ayotte, RN, EdD and three children; Amy Marah Smith, Reese Eloise Robertson(Joseph), and Daniel Dalton Hovey; also four grandchildren; Jacob, Isaac, Joseph Jr., and Aurora. Wendell was the first of three sons born to Alfred Harris Hovey and Eleanor Sharon Hovey. His brothers are David (Sue) and Richard (Jane).

He was born in New York City and raised in Stoneham, Massachusetts. Wendell received his BS and MS at Tufts University in civil engineering. He received his doctorate in civil engineering at UC Davis in 1976. He married Syd in 1974 and moved from Davis to Connecticut to teach engineering at the University of Connecticut, Storrs. In 1980, Wendell accepted a teaching job at the South Dakota School of Mines and Technology and he and Syd moved to Rapid City, South Dakota. During his twenty years at SDSM&T, he was a full professor, chairman of his department, state wide faculty representative for the Counsel on Higher Education, and a Fulbright lecturer in India (1986-87). After raising his family in Rapid City, Wendell retired in 2000 and relocated to Merced, California. He has been teaching part-time at California State University, Fresno, since 2001.”
Stephen Newlin Joins Campus Community to Break Ground

CEE alumnus and major donor Stephen Newlin (CE ’75) joined the campus community on April 28 as part of the ground-breaking ceremony for the Stephen D. Newlin Family Student Wellness & Recreation Center. The ceremony was held at the King Center and was attended by student leaders, state and local dignitaries, and other university supporters. Once completed, the new addition is sure to become an integral part of our compact but lively campus.

CEE Alumnus Lance Roberts Assumes Position as Head of Mining Department

CEE alumnus and former Civil Engineering Assistant Professor Lance Roberts (CE ’98, MSCE ’99) will re-join the SDSM&T faculty this summer as Head of the Mining Engineering and Management Department after 3 years at RESPEC as vice president.

Over the years, Dr. Roberts has served our own department in a variety of ways. His involvement included Chair of the CEE Professional Advisory Board, where his input was much appreciated.

The CEE department extends a warm congratulations to Dr. Roberts, who has shown his dedication to our campus community as a student, alumnus, professional liaison, and once again, faculty member.

Joe Vig Named Grasstops CEO of the Year by the National Stone, Sand and Gravel Association (NSSGA)

Joe Vig (CE ’71) was recently presented with the Grasstops CEO of the Year Award at the National Stone, Sand and Gravel Association's (NSSGA) annual convention in Las Vegas. The honor was bestowed in recognition of his work as an advocate for transportation and his special efforts to alert the nation of rapidly deteriorating roads. As group president with Astec Industries in Yankton, SD, he has met with local and national lawmakers to promote increased investment and long-range planning in our nation's infrastructure. His efforts, recent achievement, and strong message about our dangerous infrastructure situation were profiled in the Yankton Daily Press, accessible via the publication's web edition. Search “King of the Road” at: http://www.yankton.net
Jacqueline (DeMent) Auker (CE ’11) moved to North Dakota three years ago after graduating from our department. She recently accepted a position as Assistant City Engineer for the City of Minot, a small town coping with the strains of change and expansion associated with the explosion of activity in the Bakken region. In the following dispatch she describes the growth and the grand task of accommodating it.

For the past half-century, Minot has felt like a small town. However, over the past four to five years, a little more “magic” has hit the Magic City. The oil boom has caused unprecedented growth for this once quiet town.

One frequently asked question is, "How many oil jobs are actually in Minot?" Currently, there are 65 energy-related companies employing 3,100 personnel. In 2010, Minot housed 17 energy-related companies with scarcely 560 personnel in 2010. Major players like Halliburton, FMC Technologies, and Baker Hughes have set up shop in Minot.

A second question is fielded by citizens and visitors alike: how does this small town cope with the increased road traffic? Most jurisdictions plan for annual growth rate of 2.5% annually. Minot’s figures represent a 43% increase in vehicular traffic in just 3 years. This expresses the ever-growing need for improved, durable, and wider roads to meet the increasing traffic demands. In response, the Engineering Department for the city has been partnering with the North Dakota Department of Transportation for the design and construction of roads, as well as the creation of a long-range transportation plan.

An important question looms: where on earth are all of these people going to live? The City of Minot, which suffered a devastating 100-year flood event in 2011, is dedicated to providing safe and affordable housing to meet post-flood and oil boom needs. In 2010, the total housing units in town rested around 18,744. Since then, a total of 6,839 housing units have been platted and approved for construction. The recent increases have stressed the city’s services (sewer, water, roads, etc.) and require thoughtful planning and even better engineering. The city’s Capital Improvements Budget for years 2014 – 2018 is approximately $293 million (compared to $54.5 million for 2009-2013).

Finally, a plug for anyone considering a move to North Dakota: as the only Hardrocker working for the City of Minot, the need for “helluva good engineers” is vast. There is no better place to be during this exciting time, so, “Why Not Minot?”
**Faculty Updates**

**Dr. M.R. Hansen with Students in Mongolia**

**Dr. Scott Kenner Presenting on Environmental Low Flows at Workshop in Mongolia Last November**

**Dr. Marc Robinson (R) with MSCE Student Tony Kulesa at the 64th Int’l Astronautical Congress in Beijing**

**Dr. Jennifer Benning Recognized for Community Involvement with the 2014 Simpson Award**

The SDSM&T Virginia Simpson Award has recognized campus employees at all levels that have gone above and beyond to serve the community. CEE faculty member Jennifer Benning was recognized this past April for her active involvement in local government and with the Pine Ridge Reservation.

Dr. Jennifer Benning has served on the Rapid City Mayor’s Standing Committee on Sustainability since May 2012. This committee’s mission is to celebrate and promote sustainability in the Rapid City community, and through serving on this committee, Dr. Benning has networked with community members and promoted SDSM&T and Rapid City’s shared interest in sustainable growth and development. This networking has benefited the campus as well by allowing her to integrate real-world examples in class. She has also been involved with the South Dakota Chapter of the US Green Building Council.

Dr. Benning has also promoted collaborative learning on the Pine Ridge Reservation. She has actively worked on net-zero energy, culturally appropriate home design and testing for over two years, and supervised a SDSM&T interdisciplinary senior design project on sustainable food production. The collaborations for sustainable design have included SDSM&T students and faculty, Oglala Lakota College students and faculty, and the Native American Sustainable Housing Initiative (NASHI), and architecture program from the University of Colorado Boulder. Through these projects, she has worked to improve both the Pine Ridge community and SDSM&T students’ understanding of the importance of stakeholder interests in design.


CEE Class of 1964 Graduates Join Fellow Alumni On Campus for 50-Year Reunion

From an original graduating class of 144 there are 122 surviving members, and 34 members from the Class of 1964 (plus 4 from the Class of 1965) attended from across the country for their Reunion. The graduates and their spouses and guests began their reunion Thursday, May 8, with a welcome mixer. They met for breakfast on Friday in the Surbeck Ballroom and proceeded on a campus tour, which included a visit with ASCE students about their concrete canoe and steel bridge competitions and a talk by Dr. Robinson on his work with advanced composite materials. Afterwards, they had lunch in the Christensen Hall of Fame. Friday’s activities culminated with a dinner in their honor. The returning alumni joined commencement on Saturday as honored guests. The CEE Class of 1964 alumni in attendance included: Larry Ayres (CE ‘64) Sioux Falls, Steve Guhin (CE ‘64) Davis, CA; Gary Mass (CE ’64) Cheyenne, WY; Glenn Nelson (CE ’64) Shady Cove, OR; Laurel “Pete” Peterson (CE ’64) Metamora, IL; Steve Sisk (CE ’64) Aladdin, WY.

Congratulations, Graduates: Welcome to the SDSM&T CEE Alumni Family!

A hearty congratulations is in order for all students who have graduated during the 2013-2014 academic year. We wish them luck in their future endeavors!

Spring 2014 Commencement Graduates:
Tyler Adams (CEE), Jessie Allard (CEE), Rika Beck (ENVE), Lucas Bohn (CEE), Alexander Cushman (CEE), Marshall Davis (ENVE), Brandon Dike (CEE), Kirk Ehlke (CEE), Spencer Ferguson (CEE), Harvey Fitzgerald (CEE), Abby Fleck (CEE), Brian Freed (CEE), Sachith Karunaratna (CEE), Timothy Lowman (CEE), Brady Meister (CEE), Asa Miller (ENVE), Eric Munson (CEE), Jesse Parker (CEE), Matthew Robinson (CEE), Kevin Stanek (CEE), Lillian Temple (CEE), Skyler Tuttle (CEE), Kaci Wheeler (CEE), Kelby Wilkison (CEE), Benjamin Wolf (CEE), Janile Lewis (MS CENE), Kaleb Nielsen-Sheffield (MS CENE), Jeremy Pirner (MS CENE), Keith Winter (MS CENE), Remington Marsden (MS CM), and David Schmitz (MS CM).

Fall 2013 Commencement Graduates:
Eathan Doyle (CEE), Daygan Fowler (ENVE), Zachery Hartung (CEE), Tyson Hasz (CEE), Carl Rohde (CEE), Christopher Timm (CEE), Ramazan Alizadeh (MS CENE), Dol Raj Chalise (MS CENE), James Dean (MS CENE), Kody Heller (MS CENE), Stephen Kilber (MS CENE), Madisen Lane (MS CENE), Austin Norberg (MS CENE), Caine Shagla (MS CENE), Clifford Bienert (MS CM), Kurt Fisher (MS CM), Ethan Hudson (MS CM), Robert Scull II (MS CM), and Jonathan Zumwalt (MS CM).
CEE: How to Stay Involved

Subscribe now!

Stay in touch by subscribing to receive the alumni newsletter!
Contact: Arlene.Lichtenecker@sdsmt.edu

We want to hear from you!

Send your updates and pictures (now and then!) to:
Micah.Steffes@yahoo.com
or share them on facebook:
facebook.com/CEESDSMT

Our ASCE student chapter donates food to local pantries via their ‘can-struction’ events.

You can donate to the CEE department by contacting the SDSM&T Foundation at:

Web: foundation.sdsmt.edu
Tel: (605) 394-2436

Thank you to all current and past donors: your generosity is greatly appreciated!
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