Commencement: 146 degrees awarded

One hundred forty-six degrees were awarded at the 168th commencement ceremony of the South Dakota School of Mines & Technology held Dec. 21. Among the degrees presented were four associate, 82 baccalaureate, 46 master’s and 14 doctoral. U.S. Sen. Tim Johnson delivered the address.

Five alumni who have set themselves apart in their professions and in their communities were honored as 2013 Distinguished Alumni recipients. They are Laurie Chamberlin, Jeane Hull, Roger Kiel, Rob Mudge and Larry Schmaltz.

- Laurie Chamberlin worked for Cargill, Inc., for 38 years before retiring in June 2013. He was involved in modifying Cargill’s high fructose corn syrup process for the soft drink industry. He has been a champion for the BioChemical Engineering initiative, which has provided approximately $1.3 million in support at Mines. He has been active in Habitat for Humanity, United Way, and other service initiatives. He earned his degree in mechanical engineering in 1975.

- Jeane Hull is executive vice president and chief of technology with Peabody Energy. She has also worked for Mobil Chemical Company, Rio Tinto and Kennecott Energy Corporation. Hull has served on the School of Mines University Advisory Board, as well as various boards and councils for other institutions. She is also active in Big Brothers and Big Sisters, Science Fair for northeast Wyoming, and has been a foster parent. She earned her civil engineering degree in 1977.

- Roger Kiel has held long-term positions with Bell Telephone Laboratories, Xerox Corporation, Color Systems Technology, Accuprint Corporation and Symbol Technologies Corporation, during which time he published 15 juried papers in professional journals. He has served as a Mines campus recruiter, national co-chair of the Foundation’s “Building the Dream” campaign and as member of the Alumni Association Board. He earned his general engineering degree in 1958.

- Rob Mudge co-founded RPM & Associates, Inc., a manufacturer providing specialty metal parts to plants, aerospace firms and the Department of Defense, in 1982 and has since created two spin-off companies. Among the numerous boards and civic positions on which he has served: the SDSM&T Foundation Board of Trustees and the Rapid City Economic Development Partnership. He earned a bachelor’s degree in mechanical engineering in 1976 and a master’s degree in metallurgical engineering in 1978, both from the School of Mines.

- Larry Schmaltz has held positions as project engineer and manager with firms involved in hazardous waste management and remediation and geotechnical consulting. He spent three years with the U.S. Air Force on the B-1 Bomber program. In 1992 he became president, CEO and founder of A2L Technologies, Inc. The company was asked in 2001 to provide consulting services at the World Trade Center’s Ground Zero site. He earned his civil engineering degree in 1979.

Mines to lead center for security printing, anti-counterfeiting

The South Dakota School of Mines & Technology will serve as the lead institution for the newly created Center for Security Printing and Anti-Counterfeiting Technology (SPACT). The center will receive $300,000 in start-up funding from the state for new projects to address the nation’s most pervasive and destructive security and counterfeiting problems.

SPACT research at the School of Mines has already led to the creation of QR codes that remain invisible in ambient lighting but are readable with a near-infrared laser and can be scanned using a smart phone. Use of this technology could thwart counterfeiting, detect national security breaches and be used in many other applications.

Reports of the research went viral and appeared in hundreds of media outlets including BBC News, NBCNews.com and Reuters. SPACT research over the past three years has resulted in three patent disclosures and negotiations for its commercialization.

Other SPACT research and development includes creating non-toxic fluorescent inks for printing on pharmaceuticals, developing techniques to determine the source and authenticity of pharmaceuticals, security printing of covert markings and labels and electrospinning of tagged fibers and fabrics.

The new center is a collaborative effort with the University of South Dakota and South Dakota State University.

The School of Mines also received a $200,000 research innovation grant to upgrade existing laboratories and to develop state-of-the-art laboratories for large-scale production in advanced manufacturing.

“Our researchers are at the forefront of advanced manufacturing and anti-counterfeiting technology. We hope to use these awards to continue to grow the research done at Mines and transfer technology to industry to create better products and more high-paying jobs,” said Mines President Heather Wilson, D.Phil.
Museum of Geology to close Jan. 6 for month-long renovation

The Museum of Geology at the South Dakota School of Mines & Technology will be closed for a month beginning Monday, Jan. 6, for a ceiling renovation in the main exhibit hall. The museum plans to reopen Monday, Feb. 3, and resume normal business.

Nostalgia Night movie series brings classics to the big screen

The Friends of the Devereaux Library at the School of Mines invites the public to join in the 20th anniversary of the Nostalgia Night classic film series. This year’s 10-movie series is titled “Play It Again” and will kick off Jan. 12 with the classic, “Casablanca,” from which the name for the series stems. The films will begin at 6:30 p.m. in the historic Elks Theatre in downtown Rapid City.

Each year, The Friends of the Devereaux Library’s Board of Directors picks a theme and begins with a large pool of movies. The group narrows the list down to 10 films based on availability and genres.

The full roster of movies and dates:
- “Casablanca,” Jan. 12
- “What’s New, Pussy Cat?” Jan. 19
- “Shenandoah,” Jan. 26
- “Top Hat,” Feb. 2
- “Chariots of Fire,” Feb. 9
- “The Tender Trap,” Feb. 16
- “Blazing Saddles,” Feb. 26
- “The Story of G.I. Joe,” March 2
- “Ghostbusters,” March 9
- “Gentlemen Prefer Blondes,” March 16

Season packets are available for $40. Tickets are available for purchase at:
- Devereaux Library on the School of Mines campus, 501 E. Saint Joseph St.
- Elks Theatre, 512 Sixth St.
- Bag Ladies, 524 Sixth St.

Season ticket holders may reserve seating on the main floor for the entire series by paying a small additional fee. For those who do not want to purchase a season packet, open seating will be available in the balcony, and single-event tickets will be available for purchase the day of the showing.

“The Nostalgia Night series has been an outstanding event for the Devereaux Library as well as for the loyal community,” said library director Patty Andersen.

This year’s sponsors are Black Hills Regional Eye Institute, RESPEC, Westhills Village Retirement Community, Brink Constructors, Inc., Dean Kurtz Construction, Dick and Nancy Gowen, Family Thrift Center, (mostly) Schnauzer Station, Pet Pantry, SDSM&T Alumni Association, SDSM&T Foundation and United Corporation.

All proceeds will benefit the Devereaux Library.

For more details, visit http://friends.sdsmt.edu or call the library at (605) 394-1262. Join in on Facebook at Nostalgia Night Film Series.

Mines hosts regional LEGO League competition

The School of Mines hosted nearly 150 elementary and middle school students as they sent their LEGO robots into competition Dec. 7.

Fifteen teams of students ages 9-14 registered to compete in the regional FIRST LEGO League contest. Eight teams qualified to advance to the state finals to be held in Sioux Falls later this month.

The teams worked together for six weeks learning to build and program competitive autonomous robots, which were required to do various tasks on their own within a given time to earn points. Results of research projects were also presented to judges, and students competed in teamwork activities to earn additional points.

Teams used LEGO Mindstorms Robotics kits.

This was the third year the School of Mines has hosted the competition, which has grown each year. Last year eight teams competed.

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Arden D. Davis, Ph.D., has been selected as the 2013 recipient of the Ivan B. Rahn Award by the Society for Mining, Metallurgy & Exploration Inc. (SME).

Established in 1995, the Rahn Award recognizes distinguished contributions to the educational activities within SME. Davis is being honored for his outstanding contributions through teaching, advising and mentoring, and especially for his activities with the Accreditation Board for Engineering and Technology (ABET) on behalf of SME. The award will be presented during the SME Annual Meeting in Salt Lake City, Feb. 23-26.

Davis is chairman of SME’s Council of Education, the Accreditation & Curricular Issues Committee and the ABET Visitor Selection Committee. He is also a member of the Professional Engineer Exam Committee of SME and served as the SME representative on the Engineering Accreditation Commission of ABET from 2002 to 2007, including work as team chairman for accreditation visits to engineering programs at educational institutions.

In 2007 he was appointed by SME to the ABET Board of Directors and in 2010 was re-appointed for a second three-year term. Since 2002 he has conducted ABET training sessions for SME program evaluators in mining engineering and geological engineering.

Davis earned a bachelor’s degree in geology from the University of Minnesota and master’s and doctoral degrees in geological engineering from SDSM&T.

As a professor of geological engineering at the Mines, Davis has worked extensively on groundwater projects and geological engineering site evaluations, served as an investigator in more than 50 funded research projects, provided expert witness testimony in cases involving groundwater and disposal of waste and has provided technical assistance to the South Dakota Department of Environment & Natural Resources in the review of mining plans and groundwater concerns, including Superfund sites.

Davis and his co-researchers hold a U.S. patent for removal of arsenic from water, and they have applied for a second patent for removal of metals from water. Sixty graduate students have completed M.S. or Ph.D. degrees under his direction.

Student organizations from the School of Mines were recognized by the South Dakota Board of Regents for their outstanding academic, community and organizational work.

Student groups honored during the board’s December meeting were:

Award for Academic Excellence – Future Health Science Professionals offers a campus community for students interested in the health sciences and encourages volunteer work, helps students prepare for academic challenges and promotes personal and professional growth. Seminars are offered where community health professionals are invited to discuss how to prepare for future careers. The group also visits medical schools across the region to learn more about their academic options.

Community Service Award – The American Society of Civil Engineers Student Chapter enhances the personal and professional development of its members. The chapter recently worked to replace the “Willie the Whale” figure at Rapid City’s Storybook Island. More than 1,300 hours were volunteered to fabricate Willie’s steel frame and complete the construction work. The group also reaches out to several public schools, as well as hosts an education day at the South Dakota Discovery Center in Pierre.

Award for Organizational Leadership – To provide a creative outlet, the Hardrockin’ Drama Club integrates the arts into a science and engineering curriculum at the School of Mines. The club recently presented three artistic productions, with $1,000 in proceeds from ticket sales donated to the Black Hills Children’s Home Society for its creative arts programs. The club continues to help children at the home with art projects and acting lessons.
Two student programming teams from the School of Mines recently placed in the top 5 percent among the 322 teams competing at the North Central Regional competition of the International Collegiate Programming Contest (ICPC).

Two of the five Mines teams finished 13th and 14th among the hundreds from eight states and two Canadian provinces. In all, the School of Mines entered five teams in the regional competition, and all five finished in the top 25 percent.

Students gained a valuable experience that emphasized the importance of problem solving and teamwork. “Our students get practical programming and teamwork experience, and they also get small scholarships that are supported by industry,” said Kyle Riley, Ph.D., head of the Department of Mathematics and Computer Science (Math & CS).

The teams were coached by math and computer science faculty members Toni Logar, Ph.D., Larry Pyeatt, Ph.D., and Roger Schrader, Ph.D. Faculty member Ed Corwin, Ph.D., served as a judge for the regional competition.

Below are the teams and their results:

- Red Team (13th) – Dean Laganiere (Math & CS), Racine, Minn.; Matthew Richard (Math & CS), Champlin, Minn; and Teresa Worner (CS), Rapid City.
- White Team (14th) – Andrew Koc (CS), Woodland Park, Colo.; Charles Parsons (CS), Rapid City; Shaun Gruenig (CENG), Rapid City; and alternate Matthew Dyke (Math & CS), Hartford.
- Gold Team (36th) – John Brink (CS), Saint Paul, Minn.; Minda (McDaniel) Carpenter (CS), Mitchell; and Bryon Glass (Math & CS), College Park, Md.
- Blue Team (40th) – Rachel Krohn (ME & CS), Rapid City; Adam Meaney (CS), Mitchell; and Joshua Schultz (CS), Sturgis.
- Silver Team (80th) – Jonathan Richardson (Math), Douglas, Wyo.; Austin Rotert (Math & CS), Spearfish; and Jaysen Spurlock (CS), Gillette, Wyo.

The Red, White, Gold and Blue teams were the top four teams in the state.

The culmination of a month-long “Cut it for a Cause” fundraiser, School of Mines students chopped off their locks in solidarity for one student’s 13-year-old niece who is battling bone cancer.

The Society of Women Engineers (SWE), the Lambda Chi Alpha fraternity and the Alpha Omega Epsilon (A.O.E.) sorority teamed up for the fundraiser, taking pledges for monetary or hair donations. The cause hits home for A.O.E.’s president, Kori Clyde, the young girl’s aunt who was among those who shaved their heads and cut their hair.

Around $2,000 was raised for the young woman, Olivia Clyde. Hairdressers from Black Hills Beauty College volunteered their services.

About Legacy News

Legacy News is produced by the Office of University Relations the first Wednesday of each month. The newsletter is a compilation of news releases, photos and Web articles.

To submit news or story ideas or to subscribe to the email distribution list, please contact Fran LeFort, communications manager, at 605.394.6082 or at fran.lefort@sdsmt.edu. For more School of Mines news, visit news.sdsmt.edu.

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SATURDAY, JANUARY 11, 2014

HARDROCKER BASKETBALL

NCAA D-II DOUBLE HEADER

BASKET BRAWL

SOUTH DAKOTA M
SCHOOL OF MINES & TECHNOLOGY

RUSHMORE PLAZA CIVIC CENTER ICE ARENA

5 P.M. LADY HARDROCKERS VS. BHSU YELLOW JACKETS
7 P.M. MEN’S HARDROCKERS VS. BHSU YELLOW JACKETS

FOR MORE INFORMATION AND TICKETS, VISIT WWW.GOROCKERS.COM