

Mining Engineering

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\$200,000 in Annual Mining Engineering Scholarships Secured from State

Over the past several years, funding sources for scholarship monies for mining engineering students have continued to decline. This loss of funding came at the very time when more money was needed due to increasing enrollment in the mining engineering program.

State supported scholarship funding for mining engineering students decreased from approximately \$140,000 in 1978 to \$40,000 in 2005. During this same time period, tuition increased from under \$600 to nearly \$6,000 per year. Without financial help, many mining engineering students simply could not afford college.

During the 2004 legislative session, the coal industry and the Mining Engineering Department approached legislators about a funding source for mining engineering scholarships using coal severance tax revenues. Even though positive response was received from key legislators, the scholarship failed to be included in the two-year state budget.

During the interim period between sessions, meetings were held with key legislators stressing the need for scholarship funding for the University of Kentucky mining engineering students. In October and November, 2005, Dr. Rick Sweigard, Chair of Mining Engineering, made presentations to both the Interim Committee on Agriculture and Natural Resources and the special subcommittee on Energy on the shortage of mining engineers both in Kentucky and nationally, and on the need for financial help (scholarships) for mining students. Other presentations were made to key legislative committees and to the governor's staff. Momentum for scholarship funding started growing.

Prior to the 2006 legislative session, this effort got a much needed boost when Dr. Lee Todd, President

of the University of Kentucky, included the need for mining engineering scholarships in UK's Top Twenty Business Plan as one of its published legislative goals.

Facing an immediate scholarship shortfall for the 2006 spring semester, the coal industry successfully secured \$50,000 in one-time coal education funding to meet immediate scholarship needs. (The Department of Mining Engineering is grateful to Governor Ernie

Fletcher for his role in this effort.) At the same time, the coal industry and the University intensified efforts to have coal severance tax monies dedicated to mining engineering scholarships in the two-year state budget.

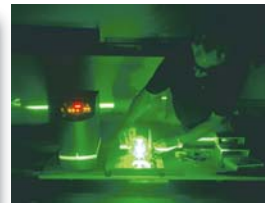
Commitments were obtained from the Governor's office, the House Democrats, and the Senate Republicans for support

for \$200,000 in annual scholarship monies coming from the coal severance tax revenues. The Governor's proposed budget contained \$200,000 annually for the Mining Engineering Scholarship Program. Continual lobbying efforts insured that these scholarship monies remained in the budget as it moved through the House and then the Senate.

Special thanks go to President Lee Todd, Bill Caylor, President, Kentucky Coal Association, and Steve Byars, Director of University of Kentucky Government Relations, for their efforts over the last two years in lobbying and securing this funding. Representative Rocky Adkins of Sandy Hook, KY and Senator David Williams of Burkesville, KY played a pivotal role in seeing this legislation through to fruition.

The next priority is to insure this annual scholarship funding source be maintained in the next two-year state budget.

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Greetings from the Chair

Many of you have told us that you want to be better informed of what is happening in the Department of Mining Engineering. Therefore, we are initiating a departmental newsletter that will be published twice each year. Our intent is to prepare one newsletter late in the fall semester and another one near the end of the spring semester. I am personally grateful to Geaunita Caylor for the assistance she has provided in researching and preparing the articles published here. I also want to acknowledge the assistance of the College of Engineering



Richard Sweigard

Office of Advancement in taking care of the layout and logistics of printing. As alumni and friends, we ask you to give us your feedback so we can provide the kind of information you desire.

It is especially encouraging to be able to initiate this newsletter with the good news that the Commonwealth of Kentucky has committed \$200,000 per year for mining engineering scholarships (see page 1). Many of us remember the not-so-distant days of declining enrollment and state budget cuts. I am pleased to report that due to the increase in both state and private scholarships along with the recruiting efforts of Ron Robinson, our Director of Student Affairs, the current undergraduate enrollment stands at 92. This is the largest enrollment in Mining Engineering since 1982 and places us in the top three or four nationally.

The faculty members in Mining Engineering have also been very busy. In three of the last four fiscal years, our professors have led the College of Engineering in new external research grants per faculty member. In future newsletters we will inform you of some of the exciting work that is being done in coal preparation, mine safety, surface mine reclamation, and other areas.

This growth in enrollment, scholarships, and research funding is welcome and could not have come at a better time. Most of you are familiar with the current shortage of mining engineers. We have seen a doubling in the number of companies coming to campus to recruit in the last two years. We were fortunate to have begun our intensive recruiting efforts at the high school level in 2001, so that we were a few years ahead of the curve in ramping up for the current demand. However (and there is always a however), the Commonwealth of Kentucky has not yet made the same commitment to addressing the technological challenges facing the mining industry as it has in addressing the manpower issues.

There are specific issues facing the coal industry in Kentucky that are wanting for attention – issues such as better underground communications, explosive integrity of seals, reduction and disposal of prep plant waste, minimizing the impacts of excess spoil disposal, and automated mining systems to mine thin coal seams. We hope that these issues will be met with the same commitment of resources at the state level that has already been directed to the shortage of mining engineers. Only then will the safety of the workplace, the integrity of the environment, and the productivity of the industry be sustained.

Class Agent Program Established

A “class agent” led Alumni Giving Fund was first discussed at the April 7, 2006 meeting of the Mining Engineering Foundation. Stephen Allen, Class of 1980, initiated discussions on using representatives from the graduating classes to assist in raising funds to support the Mining Engineering Foundation. Mr. Allen noted similar efforts had been very successful in raising money from the University of Kentucky Law School graduates, and it had great potential for the mining graduates. The Foundation unanimously embraced the concept and directed the Department of Mining Engineering to pursue this program.

A mailing list was gathered of the slightly more than 525 living mining and civil/mining option engineers who graduated from the University of Kentucky since 1940. This list was then subdivided into 22 groups. “Class Agents” were identified and invited to participate by mailing personal letters asking their classmates to donate to the Mining Engineering Foundation. The focus of the donations this year was to raise money for new laboratory equipment. Seventeen class agents initially participated, and the Department hopes to have volunteers come forward for all 22 slots by 2007.

By the November 10, 2006 Foundation meeting, Mr. Allen reported that the Mining Engineering Class Agent Program was well under way, and almost 400 letters had been mailed to graduates. The Department’s goal for 2006-2007 is a class participation rate of 75% for class years through 1985, and 50% for the classes 1986-2005.

The Department of Mining Engineering would like to thank Steve Allen, Stites & Harbison, PLLC (BSNMG, 1980), Dell Jagers, Poplar Ridge Enterprises, Inc. (BSCE-Mining Option 1980) for their direction and efforts in this project.

Events for 2007

February 24

Engineers Day Open House
University of Kentucky Campus

February 25-28

SME Annual Meeting
Denver, CO

April 12-14

Central Appalachian Section of SME Spring Meeting
Lexington, KY

April 26

Department of Mining Engineering Distinguished
Lecture Series
University of Kentucky Campus

April 27

Mining Engineering Foundation Board Meeting
University of Kentucky Campus

April 28

Department of Mining Engineering Annual Awards
Dinner
Hyatt Regency Hotel Lexington

August 14-16

Kentucky Mining Institute 68th Annual Meeting and
State Mine Rescue Contests
Embassy Suites Lexington

SME Student Chapter Holds 7th Annual Golf Outing

The Norwood Chapter of SME held its 7th Annual Golf Outing on September 22, 2006 at StoneCrest Golf Course in Prestonsburg, Kentucky. Known as “A Course Like No Other,” StoneCrest is a unique championship facility built on a reclaimed mountaintop mine offering spectacular views of the surrounding mountains and valleys.



Monique DeSpain

Unfortunately for the students, the weather on the 22nd proved to be challenging. The day began with a heavy rain, and while “calling it” was discussed, after a two hour delay the rain ended and the determined students and die-hard golfers decided to forge ahead.

Of the 60 people registered, 36 golfers (including 12 students) waded through the course and remained to the end! A special thanks goes to Alpha Natural Resources who sponsored the barbecue and beverages. Brian O’Dea, SME Student Chapter President, said “the free food made the rain easier to deal with.”

The students would like to recognize the winning team from Wilson Equipment, and extend their appreciation to all the hole sponsors and others who donated gifts and prizes for the scramble.

The SME chapter at the University of Kentucky remains strong and active due to the leadership of its officers Brian O’Dea, President, Eric Joseph, Vice-President, Troy Gullet, Treasurer, Nate Waters, Secretary, and Monique DeSpain, Engineering Student Council Representative. Visit their new web site at <http://uksme.org>.

Sweigard Receives 'Old Timers' Faculty Award

Rick Sweigard, Chair of Mining Engineering, received the 'Old Timers' Faculty Award at the Duquesne Club in Pittsburgh, Pennsylvania. Recognized for his leadership in mining engineering education, Dr. Sweigard was recognized at the Old Timers Annual Meeting on December 11. The award, an engraved mantle clock, was presented by Dr. H. Doug Dahl, President of the Old Timers Club.

The Old Timers Club was conceived during the American Mining Congress Convention in 1938 in Cincinnati, Ohio. Nine leaders in the mining industry formed a group with the intent of improving the techniques of coal mining. The written purpose of the Old Timers Club was to “perpetuate friendships formed within the coal industry and to promote worthy activities directed toward the betterment of coal mining.”

Today the club has more than 70 members. Traditionally each year, members select an outstanding engineering student or recent graduate from each of the mining engineering programs in the U.S. In 1994 they initiated an award to be given to a faculty member from one mining engineering program in the U.S.

Dr. Sweigard said “The Old Timers Club is a special group, and I’m honored to be chosen for this award. More than a personal recognition, it’s a measure of how the Mining Engineering Department at the University of Kentucky has developed and grown over the past 10 to 15 years.”

We Welcome Your Feedback!

Please let us know if there are areas of interest or articles you would like to see in future newsletters. Please keep us updated on changes in your career or contact information. If in the future you would like to receive this newsletter by email, let us know that as well. Contact Geaunita Caylor at (859) 257-2820 or gcaylor@engr.uky.edu.

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Ted Haley Inducted into 2006 Kentucky Mining Hall of Fame



Ted D. Haley, former Director of the Mining Program and much loved college professor was honored posthumously in April 2006 at the Department of Mining Engineering Spring Awards Dinner. Haley directed the mining program at UK from 1966 to 1981, and is credited with re-establishing the mining engineering department at UK.

Members of the mining community recruited Professor Haley from industry, in hopes he could put new life into the mining engineering

program during one of the hardest times in the history of mining engineering at American colleges. Haley did that and much more. Through his efforts, mining engineering grew from an option under civil engineering to a separate department within the College of Engineering.

Professor Haley taught approximately 75 students during his tenure. This close-knit group of students became known as “Ted’s Boys.” Along with his professionalism and practicality, Haley brought a special style of teaching, based on his work in the industry. “When he taught us, it was like we were sitting around the kitchen table instead of in a lecture-type setting,” said Samuel S. Johnson, one of Ted’s Boys. “We learned as much on the practical side as we did from classical textbooks.”

Sam added “Whatever Ted undertook he did so with pride, enthusiasm, and commitment. Nothing was ever a job. He was a miner, an engineer, a blasting expert, a salesman, an educator, a marine, a loving husband to his wife Betty Ann, railroad executive, a consultant, a band member and an advocate for mining. Ted believed in mining and the need for quality professional mining engineers. We all have a role to play in order to stay on the progressive path, the foundation of which was laid by Professor Haley.”

Professor Haley joins a prestigious group of Mining Hall of Fame inductees including David Zegeer, Raymond Bradbury, and Catesby Clay. All have played major roles in shaping and guiding the Department of Mining Engineering at the University of Kentucky.

Mining Engineering Foundation Fall Meeting

The Mining Engineering Foundation Board of Directors Fall Meeting was held November 10, 2006 at the University of Kentucky with approximately 50 in attendance. Members and guests representing the University of Kentucky, industry, government, students and alumni, attended to hear the encouraging news about the growth in enrollment and scholarships in Mining Engineering.

Foundation Board Chairman Dennis Hatfield welcomed the group and recognized the special guests in the crowd, Dr. Lee Todd, President of the University of Kentucky, Dr. Thomas Lester, Dean of the College of Engineering, and Dr. Chuck Staben, Acting Vice President for Research & Graduate Studies.

After a self introduction of “We beat Georgia,” (referring to the football team’s win the previous weekend over the University of Georgia), Dr. Todd spoke about UK’s business plan and its quest to be a Top 20 University by 2020. In order to attract national prominence, Todd stated UK must have a quality undergraduate and graduate program, attract, develop, and retain a distinguished faculty, and maintain a quality level of research and funding. The University has made great strides in attracting faculty and students, and graduation rates are on the increase.

Dr. Todd also stressed the push in higher education for stronger science, technology and math competence, a much-needed skill for engineering students. Kentucky must take a lead role in this area. He

strongly believes that in order to achieve Top 20 status, a university must find an opening and do something unique. “You must find an area that is unique, where you can operate where others can’t; at least not for some period of time. Coal and Energy are areas we can make so unique, and we’ve yet to leverage that, at least not on a state-wide or university level.” Dr. Todd added that energy is a key, and, “It’s an interesting time for Kentucky to take advantage of a unique resource and push for this university to be Top 20.”

Dean Thomas Lester then spoke to the group and reported that the Deans and Chairs have been asked by the Provost to develop strategic plans that are specific to colleges and departments. In the next four months the Department of Mining Engineering will be asked to develop a new three year plan that will be effective July 1, 2007. He said input from the Foundation and industry is vital to helping the department plan strategically for the next three to six years, and most importantly, helps the President take the University of Kentucky in the direction he wants it to go.

The meeting continued with a department status report by Dr. Sweigard, a recruitment report by Ron Robinson, and a Class Agent report by Steve Allen. Budget and research reports were distributed, and the meeting concluded with a showing of “Reclaiming the Future: Reforestation in Appalachia,” a recently released video highlighting successful mine reclamation research being conducted at UK.

Braden Lusk Joins Mining Engineering Faculty

Braden Lusk joined UK's Mining Engineering Faculty in August of this year, and immediately made a positive impact in both the areas of research and teaching. Braden received his undergraduate degree with an emphasis on explosives from the University of Missouri-Rolla (UMR), and served as a Graduate Teaching Assistant to Dr. Paul Worsey in the Rock Mechanics and Explosives Research Center. He worked on numerous research projects, submitted proposals to build the research base for the graduate program, and helped develop and expand the explosives emphasis area. Dr. Lusk received his Ph.D. from UMR with a minor in Explosives Engineering in May, 2006.



While at the University of Missouri-Rolla, Braden was awarded the Outstanding

Graduate Student Award and the Outstanding Graduate Teaching Assistant Award. He was a Chancellor's Fellowship Recipient, member of Tau Beta Pi Engineering Honor Fraternity, and founder of the student chapter of ISEE (International Society of Explosives Engineers), just to name a few of his activities and honors.

Braden began playing football at UMR prior to joining the UMR rugby team. He was also a member of the UMR Mucking Team that competed in the 28th International Mining (Mucking) Competition held April, 2006 in Kalgoorlie, Australia. It didn't take long to discern that Dr. Lusk is a team player as well as a strong competitor! As the advisor for UK's Norwood Student Chapter of SME, he already has students interested in representing the University of Kentucky in the 2007 Collegiate Mining Competition to be held in Tucson, Arizona in March of 2007.

Dr. Lusk began his mining career as a part-time shift foreman in charge of operations at the Hutchinson Salt Company in Hutchinson, Kansas, and developed his blasting and explosives skills on various job assignments, including optimization of underground burn rounds, specialized blasting near structures, and multiple demolition operations. He has also spent time working on blast vibration related issues.

His research efforts at the University of Kentucky are underway in the area of explosives engineering, specifically vibration control and blast optimization through novel techniques, as well as public relations for blasting operations in close proximity to suburban development. Additionally, he is seeking research contracts in the field of blast mitigation which includes the design, analysis, and testing of blast resistant materials.

Dr. Lusk noted "the timing for this research coincides well with a problem currently facing mining operations nationwide. The development of new standards for blast resistant ventilation seals for underground operations is imminent, and many operations are not equipped to handle the design and certification process. It is hoped that a testing facility will be available for minimum scaled testing at UK in the near future."

Of interesting note, Braden is licensed to shoot off fireworks, and has been actively doing so for large shows in the St. Louis area for several years. He hopes to get established in this area, possibly at UK football games, but most definitely will weave this into the culture for students in mining engineering

Braden is living in Nicholasville with his wife Shannon, who is working on her Ph.D. in Mining Engineering at UMR. He says "The transition to UK has been a breeze with the help of all the students and staff. Everyone has been very accommodating for the first new addition to the department in quite some time. I look forward to meeting alumni and friends of the department as I attend events in the near future. I'm looking forward to an exciting year as a Kentucky Wildcat!"



Assisting at the Kentucky Mining Institute Banquet from left Russell Lamont, Eric Joseph, Brian O'Dea, Josh Bailey, and Craig Travis.

Nine students from the Department of Mining Engineering assisted with the 67th Annual Kentucky Mining Institute's State Mine Rescue Contests held September 6-8 in Lexington, Kentucky. Thirty-four mine rescue teams from eight states competed in the two-day event, which included Mine Rescue, Pre-Shift, Benchman, and MET contests. Governor Ernie Fletcher spoke to a crowd of over 450 participants and guests at the Friday evening banquet, and recognized all the mine rescue teams who had been involved in rescue emergencies in the past year.