

HOWARD R. HUGHES COLLEGE OF ENGINEERING

university of nevada, las vegas

SPRING
2007



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Top right, **Female faculty members** in the Howard R. Hughes College of Engineering teach and research a variety of engineering subjects.

Left, **Associate professor** of civil and environmental engineering Barbara Luke says engineers with a passion for helping people can join an organization such as the Peace Corps and apply the skills they learn from engineering to help improve other's lives.

Women Engineers Inspire Next Generation

In a field dominated by men, the female faculty members in the College of Engineering stand out, for the obvious reason that they are the minority. However, all of these women, who teach subjects ranging from civil engineering to informatics, have achieved great success and deserve recognition for their service to the field and for serving as role models to their students—both male and female.

Despite some roadblocks, these eight say that there is nothing that should hold other women back from following their lead.

"It is true that there are not many women in the field, but I don't consider myself the minority since I don't think being a woman makes me less or more of anything," said Fatma Nasoz, an assistant professor in informatics specializing in human computer interaction and affectively intelligent systems who joined the UNLV faculty in fall 2006.

Most of Nasoz's colleagues agreed that there are few differences between men and women when it comes to their abilities in the field of engineering. On the other hand, a few also mentioned that women may have certain skills that give them certain advantages over males.

"Engineering is a good field to go into if you want to help," said associate professor of civil and environmental engineering Barbara Luke, who suggested engineers with a passion for helping people can join an organization such as the Peace Corps and apply the skills they learn from engineering to help improve other's lives.

"That's an aspect of engineering that appeals to women—we like to help other people," said Luke.

Lee Misch, a computer science lecturer who has been with UNLV for 21 years, said that women have a lot to give to computer science. "Many women are able to express and explain things better than their male counterparts. Computer scientists need to get better at how to communicate," she said.

Jacimaria Batista, who teaches civil and environmental engineering, added that women are naturally drawn to and are good at things such as waste water management and homebuilding, which are elements of engineering.

Mei Yang, an assistant professor of electrical and computer engineering who recently moved to the United States from China, where her husband and 6-year-old daughter still live, has also noticed that female students excel more than men.

"Women should not question their intelligence or their capabilities," Yang said. "I've found that my female college classmates worked harder and had a better attitude."

Each woman seems to have a different perspective about why there are not more women in the field.

Ju-Yeon Jo, an assistant professor in the School of Informatics who specializes in cyber security, also pointed to math as a reason many female students avoid engineering and computer science in general.

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MESSAGE FROM THE DEAN



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*Eric Sandgren, Ph.D.
Dean, Howard R. Hughes
College of Engineering*

Changing the Face of Engineering at UNLV

We have just completed hosting our third Las Vegas Regional FIRST Robotics Competition, where approximately 1,500 of the brightest high school students from around the United States were on campus for four days. The dedication and creativity of the students participating in the competition centered around the design of a computer-controlled robot and was a welcomed sight. There was, however, a stark discrepancy between the diverse mixes of ethnicity and gender present among the students competing at this event and the group of students enrolling in engineering programs around the country.

Engineering as a career seems to be falling off the radar screen, as well as out of popular culture. If this trend is not reversed, our nation will continue to slip in technical dominance in the world economy. Engineering is frequently not viewed by women as a career choice. I am proud to feature our women faculty in this newsletter, as it illustrates that engineering is a viable and positive choice for women and underrepresented groups to pursue.

We can point to success in expanding numbers of underrepresented students in the college, but the numbers still clearly illustrate we have work to pursue. Our college has agreed to work towards doubling the number of our students, and this cannot be done without expanding our reach to underrepresented groups. During the last 18 years, Eugene McGaugh, Ph.D., has established a strong

and renowned Minority Engineering Program that we will continue to develop with our new assistant director. We will carry McGaugh's legacy forward by increasing our underrepresented enrollment. Other steps we have taken to reverse the trend:

- We are focused on recruiting the best and brightest students from the Clark County School District, as well as from neighboring states and nationally. We are working with the community through events like the FIRST Junior Lego League to reach out to junior high and elementary school students to interest them in careers in engineering and science.
- Our website and collateral materials specifically feature our underrepresented students.
- Our student organizations frequently host seminars that are developed with the objective of attracting women and underrepresented groups to the field of engineering.

These efforts have made an impact. Students recognized at our spring semester events clearly showcased the diversity of the top academic performers in our graduating class. Congratulations to all our role models and leaders who inspire others to pursue the field of engineering. The college invites you to help us pass the torch and recruit the next generation of engineers. ●



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Invent the future, leave a legacy. Charitable giving can play an important role in planning for your family's and your estate's future. Your gift through a charitable gift annuity, bequest, pooled income fund, or other means can have a meaningful impact on the Howard R. Hughes College of Engineering.

Membership in the Dean's Associates Program. This gift club recognizes donors who give \$1,000 or more to support Dean Eric Sandgren's vision for the Howard R. Hughes College of Engineering. Members will receive UNLV Magazine and invitations to campus and community events.

"How Can I Help the Howard R. Hughes College of Engineering?"

For more information about giving to the Howard R. Hughes College of Engineering, please contact Caleen Johnson at (702) 895-2913 or caleen.johnson@unlv.edu.

Every gift counts. Your annual gift – no matter the amount – to your program of choice in the College of Engineering helps support student endeavors and academic excellence. Plus, your donation today is part of Invent the Future, UNLV's 50th anniversary campaign. Give online at foundation.unlv.edu.



Emma Regentova (left) and Mei Yang, both of the computer engineering department, work together to inspire students.

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Engineering a Difference: Recent Graduate Kristal Sauer

Kristal Sauer came to UNLV in the fall of 2002 from Advanced Technologies Academy, where she was a National Merit Finalist and selected as the valedictorian of her graduating class. Throughout her tenure at UNLV, Sauer achieved a long record of academic accomplishments and service to the college. She maintained an exceptionally high grade point average (3.98 GPA), pursued dual degrees in electrical engineering and computer science, completed a minor in mathematics, and earned distinction in the Honors College.

While at UNLV, Sauer had many accomplishments and earned numerous accolades, including participation in a number of advanced research projects with faculty; numerous scholarships, including one from NASA; the honor of Best Student Research Paper at the 2007 Regional IEEE Conference; and a Regent Undergraduate Scholar Award. Furthermore, she and her team of peers won the grand prize during the December 2006 College of Engineering Senior Design Competition.

In addition to her academic achievements, Sauer served as an ambassador for the college, actively assisting with recruiting new students to its programs. She also helped other students as a mathematics tutor.

This fall, Sauer will attend the University of California-Berkeley to pursue a doctoral degree in computer science. She has been awarded a California Chancellor's Scholarship, which will provide a full ride for four years of her graduate studies. After obtaining her doctorate, Sauer hopes to pursue a career in academia as a faculty member so that she may continue her research and teach the next generation of engineering and computer science students.

The college extends sincere congratulations to Kristal Sauer and all of our 2007 graduates. ●

Lessons Learned at Home Inspire Professor

To say that learning begins at the home front is fitting to describe one professor's passion for the field of engineering.

Emma Regentova, an associate professor in electrical and computer engineering, can recall as a young girl living in Armenia the everyday inspiration for learning she witnessed in her own home.

"My mother was a pediatrician, my father in construction, my uncle an architect, and my grandfather an engineer and inventor," she said. "My family implanted in me the idea that there was nothing I was limited to."

Her path of continuing education has led her to places like Bratislava and Greece and down different career paths including architecture, astrophysics, and journalism.

"I just didn't stop looking," she said.

After receiving her doctorate degree in computer engineering from State Engineering University of Armenia, Regentova fell into a passion that has its roots back home—teaching and learning.

Joining UNLV and the College of Engineering about seven years ago, Regentova has received honors such as the master instructor of the year and outstanding electrical computer engineering professor of the year.

"I am very enthusiastic about teaching," she said. "My door is always open." ●
--Angela Sablan

Students Succeed at Steel Bridge Competition

UNLV engineering students participated in a steel bridge building competition April 12-14 at the University of California, San Diego.

The competition allowed students to apply all of their classroom knowledge to the design, fabrication, and construction of a scaled model steel bridge.

The national competition is sponsored by the American Society of Civil Engineers and the American Institute of Steel Construction. The team thanks the following sponsors: Frehner Construction, Gilbert's Precision Machine, Just for Show, Steel Engineers, and Wright Engineers. ●



UNLV Photo Services

UNLV's award-winning bridge earned first place for aesthetics and stiffness, third place for speed and efficiency, and fourth place overall in the annual steel bridge building competition.



Women Engineers Inspire Next Generation

CONTINUED FROM PAGE 1

She said that there is a misconception that men are superior to women in math.

"We need to distinguish learning outcomes in math as a result of individual differences not gender differences." Jo said, "In the field of informatics there isn't a lot of mathematics, but women are still shying away from it."

"Traditional thinking is that engineering is not feminine," said Emma Regentova, an assistant professor in electrical and computer engineering. "But I care about my nails, my face, and my physical appearance."

Although there may be a lack of female engineers, a few of the female faculty members were fortunate to have female role models in the field.

Yang found support in a female friend whom she met while pursuing her doctorate at the University of Texas in Dallas.

"She was the top student in our Ph.D. program," said Yang, who

had previously not had a woman mentor. "Her passion for science and engineering is fascinating."

Jo pointed out that the person credited as the world's first computer programmer was Ada Lovelace, a British woman. To honor her contributions to the field, the U.S. Defense Department named its new computer programming language "Ada" on Dec. 10, 1980, which was Lovelace's birthday.

These women are role models in their own rights, and have encouraging words for females thinking about joining the engineering field.

"Be brave," Regentova urged. "Don't fear the difficulties. They are everywhere. Just work hard and you can be excellent."

"I strongly believe that women should be encouraged to pursue their dreams and those of us already in the field should set good examples for them," Nasoz said. ●

--Lisa Shawcroft

New Assistant Professor Brings Motivation to UNLV

Renee Bryce, assistant professor of computer science, says that computer science is a helping profession that provides many opportunities to improve the world around us. Her research area of software testing may improve the quality and reliability of software systems that we interact with on a daily basis.

"Software defects cost the country \$59 billion a year," she said. "Software testing prevents these defects, and there's a chance to make a real impact."

Bryce joined the computer science department last summer after earning her Ph.D. at Arizona State University. There, she taught several introductory courses and got to know many of the female students in her classes. Several students approached her about advising a group of women in computer science. Together, they organized an annual computer programming competition, luncheons with speakers from academia and industry, and several other activities.

Bryce said, "The purpose of the group is to foster a supportive environment for female students in the department and to provide social support among peers."

Last semester, Bryce's first at UNLV, the ratio of women to men in the classes she taught was about one to eight. She hopes more women will realize the potential that computer engineers have in changing the world. ●

Faculty members Lee Misch, Ju-Yeon Jo, and Fatma Nasoz bring their expertise in computer science and informatics to UNLV's College of Engineering.

Society of Hispanic Professional Engineers Involves Students

One Saturday morning in the early 1990s, four students along with Eugene McGaugh, met on campus to discuss the possibility of forming a student organization within the College of Engineering. This meeting is considered the first step in forming the Society of Hispanic Professional Engineers (SHPE) on the UNLV campus.

SHPE is a national organization with a visible student chapter here at UNLV with more than 60 active members.

"SHPE's primary function is to enhance and achieve the potential of Hispanics in engineering, math, and science," said Marcella Sosa, president of SHPE.

Student participants are involved in networking opportunities through career fairs and workshops, as well as some extracurricular activities, explained Sosa.

"This organization helps the students build on their organizational skills, leadership and communication skills, as well as their resumes," said McGaugh, faculty advisor and assistant dean in the College of Engineering.

"These students are ambassadors for UNLV and engineering. Through community outreach they get out to the underrepresented students, especially Hispanic students, in this field," McGaugh said.

SHPE members were most recently involved in helping local high school students with their robots, in the College of Engineering's FIRST (For Inspiration and Recognition of Science and Technology) Robotics Competition in late March. ●

--Angela Sablan

Academic Achievement and Intellectual Values Celebrated

Three hundred students and their family members, donors and other friends of the college, and faculty participated in the annual Honors Convocation on April 30 to celebrate the academic achievement and intellectual values of the college. Students were recognized for their places on the Dean's List and for receiving one of many scholarships within the college.

Department of Civil and Environmental advisory board member, Lisa Freestone P.E., '94 and Department of Mechanical Engineering advisory board member, Michael Blois P.E., were honorary emcees for the ceremony. Former vice chair of the college's advisory board and supporter of the college of engineering, Todd Kenner P.E., president and chief operating officer of PBS&J, was the guest speaker. Kenner advised students, "to remove the word 'if' from their vocabulary and make their ideas possible as they begin their engineering careers."

Additionally, community, Nevada System of Higher Education (NSHE), university, and departmental awards were also presented to students and faculty. The ceremony also paid tribute to Eugene McGaugh, Ph.D., for his 18 years of service and his role in establishing the Minority Engineering Program (MEP). McGaugh steps down from his post as assistant dean in June to return to teaching in the classrooms this fall.

AWARD HIGHLIGHTS

Kristal Sauer '07

*Regents' Undergraduate Scholar Award
Fall 2006 Grand Prize winner for Senior Design
IEEE Best Paper award
Outstanding spring 2007 graduate for the electrical and computer engineering department*

Biswajit BJ Das, Ph.D.

Barrick Distinguished Scholar Award

Jeanette Sorensen

Inaugural UNLV and the Nevada Regents Academic Advisor-Undergraduate Awards

Ajit Roy, Ph.D.

Outstanding College Researcher

Thomas Piechota, Ph.D.

Outstanding College Teacher

Neal Griffith

5-year Classified Staff Service Award ●

The Senior Design Competition, the College of Engineering's annual signature event, brings hundreds of community supporters to encourage UNLV's most talented and entrepreneurial engineering students. The college is grateful for their dedication, and would like to recognize these individuals and corporations for their commitments to Senior Design.

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Fall 2006 judges

Ricco Novero, Bally Technologies, Inc.

David S. Petersen, Lochsa Engineering

Justin R. Young, Denmark Technical Services

Spring 2007 judges

Tony Griffith, Aldec, Inc.

Qiong Liu, Ph.D., P.E., P.T.O.E., City of North Las Vegas

Joel Martell, Southwest Gas Corporation

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To become involved with the 2007-08 Senior Design events, please contact Caleen Johnson at (702) 895-2913. ●

President Ashley Speaks at Sixth Anniversary Senior Design Dinner

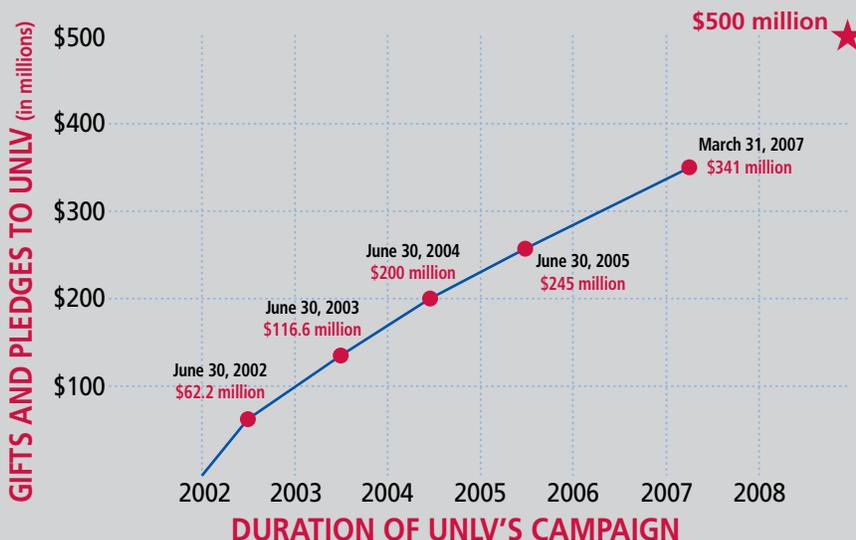
President Ashley welcomed nearly 400 guests to the sixth annual Senior Design dinner held May 4 at the Cox Pavilion. KLAS-TV anchor, Chris Saldaña, served as the master of ceremonies.

The dinner marked the conclusion of a year-long effort by the senior engineering students designing and implementing solutions to real-world engineering challenges, and is the venue for the official announcement of the Harriet and Fred Cox Engineering Design Awards. The winners are determined by a panel of industry partners who serve as judges for the two competitions held during the academic year. Honorees receive a monetary award, certificates of recognition from national and state elected officials, and a commemorative plaque.



Rod Buckle

Bob Mendenhall, one of this spring's judges, enjoys the Senior Design dinner with his wife, Paula.



As part of the Invent the Future campaign's success, the Howard R. Hughes College of Engineering is focusing on efforts to bring greater resources to its students, faculty, and programs. Private gifts designated to the college will help complete the Science and Engineering Building, develop the entertainment engineering and Mendenhall Innovation programs, and provide resources to students and faculty as they pursue interests in renewable energy and materials, and unmanned aerial vehicle systems.

To support these or any endeavors in the College of Engineering, please contact Caleen Johnson at (702) 895-2913.



The students, parents, faculty, and industry partners that attended the event participated in a friendly competition, where each table of guests produced a design using LEGO® pieces. Their creations served as centerpieces and then were judged by the William K. Moore Elementary LEGO® Club. This year's winning creation was a scorpion.

President Ashley's keynote speech was delivered in his capacity as an engineer. He advised students, "Engage in research. It is important educationally and professionally."

To reinforce the message that research is a necessity, Ashley featured the research efforts of several engineering professors, including Jaci Batista, Robert Boehm, BJ Das, and Barbara Luke, as well as recent graduate Chris Stevenson, and highlighted their local, regional, state, national, and international research projects.

"In order to become a first class research institution, we must have professors and students that both respect and appreciate the importance of research in the engineering discipline. To

continue to move the engineering profession forward, research is required," Ashley said.

He cited his own research experiences, including his innovative and ongoing work for the Panama Canal expansion project, noting the importance of design in the engineering process. Appropriately, the hallmark of the senior design project experience is this very same factor—design. ●

--Christine Wallace



Students Ahmed Moustafa and Vincent Veilleux (holding plaques) received congratulations from (pictured from left) President David B. Ashley, Fred and Harriet Cox, and Dean Eric Sandgren.

Rod Buckle

Fall 2006 Winners

Grand Prize Winner

Kristal Sauer, Niveen Shlayan, and Stephen Tam: Parking Lot Space Availability Notifier System

First Place for Civil and Environmental Engineering

Bisrat Alemayehu, Lexido De Los Santos, and Jason Ghadery: Project Green

First Place for Electrical and Computer Engineering

Tak Chang, Ravigrud Charoenbanchon, and Samuel Fukuhara: Bus Tracking System

Second Place for Electrical and Computer Engineering

Kevin Baker, Jesse Montgomery, Emmanuel Opel: Phone Call Filter

First Place for Mechanical Engineering

Brian Goldstein, Keith Lloren, and Chris Stevenson: Motorized Car Jack

Second Place for Mechanical Engineering

Lawrence Garcia, David Hanson, and Paul Lawson: Automated IAC-CPR Machine

Interdisciplinary Award:

Kim Clark, Tim Nelson, Stacy Raagas, Halli Warf: Silverfish Poison Packet Cutter

Spring 2007 Winners

Grand Prize

Ahmed Moustafa and Vincent Veilleux: STOREQUEST

First Place for Civil and Environmental Engineering

Jessica Leavitt, Jacelyn Rice, and Ramona Sanders: Sienna Gardens Office Building

Second Place for Civil and Environmental Engineering

Shaun Boulton, Scott Braddell, Mauricio Cardenas, and Luis Suarez: Residential Development at Allen and Ranch House

First Place for Electrical and Computer Engineering

Chandra Blackmon, Brandon Johnson, and Christopher Workman: Unmanned Ground Vehicle

Second Place for Electrical and Computer Engineering

Dulan Abey, Enri Mendoza, Oscar Solórzano: Ultra Navigational Cane for the Visually Impaired

First Place for Mechanical Engineering

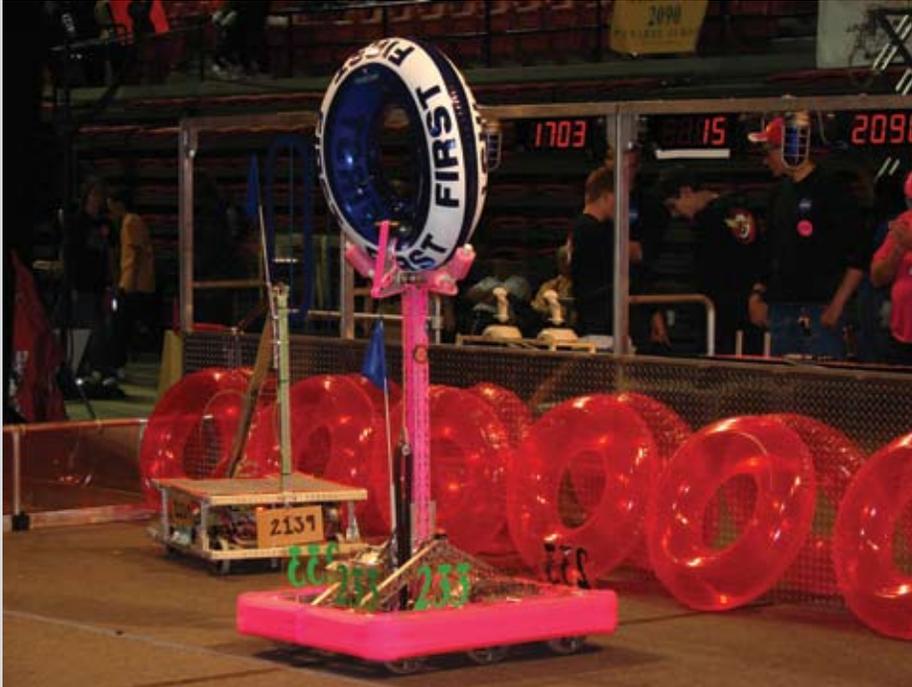
Rocío Hernandez, William Nelson, and Russell Robinson: Laptop Cooling Station

Second Place for Mechanical Engineering

Eric Parlade: Liquid Synergy

Using Robots to Recruit the Next Generation of Engineers

Engineers are in high demand in Southern Nevada and across the nation, yet American universities are struggling to keep pace with industrialized nations worldwide when it comes to attracting and producing professionals.



Rod Buckle

Teams put their creativity to the test, matching sport with science in their robot creations.

indicate the need for three times the engineers we graduate. Multiply that with the other 49 states and you understand the crisis within the profession,” said Dean Eric Sandgren.

FIRST was developed by accomplished inventor Dean Kamen to prove to students that science can be as exciting as sports and entertainment and to inspire them to pursue careers in engineering and related fields.



Rod Buckle

Student participants show their enthusiasm for engineering as FIRST team mascots.

The event has evolved from humble beginnings to become an international phenomenon during which students, with the help of university and engineering industry mentors, design and build unique robots from an identical kit of parts to participate in various regional competitions. In addition to building their robots, the students engage in computer animation, website design, and various marketing and fundraising activities.

“FIRST provides a rare opportunity to host 1,500 of the brightest high school students in the nation and show them that the skills they’re learning for the competition can lead to valuable and rewarding careers,” Sandgren said.

When UNLV was initially awarded this regional opportunity in 2005, only three local high school teams competed. In just its third year in Las Vegas, 12 local teams took part, with Cimarron-Memorial and Legacy high schools advancing beyond the qualifying stages. Cimarron-Memorial advanced to the championship in Atlanta, Ga., to win the grand prize as national champions.

The theme of this year’s event was “Rack ‘N’ Roll,” which required students to hang inflated colored tubes on pegs configured in rows and columns on a 10-foot high center “rack” structure—picture an evolved version of Tic-Tac-Toe or Connect Four.

--Tony Allen

In response, the Howard R. Hughes College of Engineering is developing creative approaches to recruit the next generation of engineers. One such strategy involves the FIRST (For Inspiration and Recognition of Science and Technology) Robotics Competition.

From March 29 - 31, the college hosted more than 1,500 high school students on 51 teams from Southern Nevada and across the nation for the third annual FIRST Robotics Las Vegas Regional Competition. Held at UNLV’s Thomas & Mack Center, FIRST combines elements of sport with science and technology in a high-energy, team-driven contest that has inspired thousands of high school students to pursue careers in science and engineering.

“Each fall semester the College of Engineering hosts a recruiting fair at which potential employers consistently

A Message from the Howard R. Hughes College of Engineering Advisory Board Chair

It has been an exceptional year for the Howard R. Hughes College of Engineering. I wish to thank Dean Sandgren, the faculty, and the board for all their outstanding efforts during the academic year.

The college is making great strides in implementing its diversity model and is making great strides to be recognized as a premier global educational institution demonstrating an inclusive culture and environment that develops impressive, effective, and successful leaders for women and underrepresented minority groups.

The college is breaking new ground with the new coursework in entertainment engineering and design. Everyone is very excited about this program because as a new milestone in the college's history, it will help earn a reputation as a leader in the education of future engineers. Because of the dynamics and continued growth within the college, several new industries will benefit from this program.

The board's goal is to assist the college in providing the most challenging and rigorous educational experience that is appealing to both present and future students for a rapidly changing workplace. Education is a lifelong experience. I challenge everyone to participate, donate, and or volunteer to be part of an outstanding educational experience or as the college remarks—engineer a difference.

Clark G. McCarrell, Jr.



Clark McCarrell, Advisory Board Member, Howard R. Hughes College of Engineering

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Dennis Waibel Memorial Golf Tournament Raises Funds for Civil Engineering Laboratories

The 2007 Dennis Waibel Memorial Golf Tournament, a major fundraiser for UNLV's civil engineering department, is scheduled for Nov. 30 at the Black Mountain Golf and Country Club.

The tournament began in 2005 when Nader Ghafoori, Ph.D., and chair of the civil and environmental engineering department, and the department's advisory board launched a campaign to raise funds to upgrade the civil engineering instructional laboratories.

The inaugural tournament had nearly 100 golfers and raised \$20,000. Last year's event grew to 132 golfers and raised more than \$23,000. That year, the event was named the Dennis Waibel Memorial Golf Tournament in recognition of Waibel's contributions to the advisory board and the local engineering community.

For additional information, please contact Nader Ghafoori at nadar.ghafoori@unlv.edu ●



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Professor Urges Students to Build Confidence

taught at Penn State for a year as a visiting professor. She currently works as an associate professor of civil and environmental engineering in the Howard R. Hughes College of Engineering at UNLV.

their male counterparts. Batista also said in her 10 years of teaching, she has seen that in general, females are more detailed-oriented, so they find errors more easily than men, and also solve conflicts better.

Jaci Batista says that UNLV professors can serve as a model for young girls and that they can succeed in the engineering field.

Growing up in Brazil, Jacimaria Batista was never told she couldn't do anything because she was a woman.

"My mother had no limitations for us," said Batista. Her mother, a business owner, whom Batista described as independent, told her children they could be anything they wanted to be.

In grade school and high school, Batista said most of her teachers were female. It wasn't until she started college that she noticed the difference in the number of female professors and the number of male professors.

Batista moved to the United States for her graduate schooling, and received a master's from Montana Tech and a Ph.D. from Penn State. After receiving her Ph.D., she

Batista said she sees a difference between the self-worth she was taught growing up and the way women in the engineering field are treated.

Female students are always the best students, according to Batista, and their leadership skills are better, as well. However, Batista said, women don't get the top jobs in engineering. Batista said she believes that women are treated differently than men.

"For a man, aggressive is good. For a woman, it's bad. It shouldn't be different for a woman," she said.

Still, Batista does not want to discourage women from getting involved in engineering. In fact, she said there are many aspects of engineering that women may be better at than

Batista said she wishes young girls would play with Dora the Explorer rather than Barbie, and concentrate less on their appearances as they get older, and concentrate more on school.

"I think it's about building confidence that you can do anything you want," Batista said. "No one should be limited by any parent or any teacher."

Batista said UNLV professors can serve as a model for young girls that they can succeed in the engineering field.

"If female students see female faculty members, maybe they will think 'Oh I can be like Dr. Batista, or 'I can be like Dr. Luke,'" she said.

--Lisa Shawcroft

Erin Breen helped give input to the design of the Danish offset crosswalks that help pedestrians cross safely from one side of Maryland Parkway to the other.

Erin Breen: Passionate about Pedestrian Safety

When Erin Breen applied for her position at UNLV's Transportation Research Center (TRC), she was asked if she could get as passionate about traffic safety as she had been about other causes she had been involved with, such as AIDS and homelessness.

Breen said her answer was a resounding yes.

It was easy for her to get passionate about pedestrian and traffic safety – all she had to do was look at the statistics. Last year, 44 pedestrians, 199 vehicle occupants, 36 motorcyclists, and seven bicyclists were killed in Clark County.

"It's hard to ignore numbers like that," Breen said.

As director of the Safe Communities Partnership, which is part of

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the TRC, Erin brings together more than 40 local agencies and programs to review data, determine the most pressing safety issues for Clark County, and develop programs to address those needs.

From the partnership's home in the Howard R. Hughes College of Engineering, Breen and her team bring together the three "E's" of safe communities: engineering, education, and enforcement.

"When those three work together, we wind up with a much safer situation," Breen said.

For more information, visit www.trc.unlv.edu.

--Lisa Shawcroft

DONOR HONOR ROLL

This roll of honor recognizes the contributions to the Howard R. Hughes College of Engineering from Oct. 20, 2006 to May 14, 2007. The college wishes to thank the following individuals, corporations, and foundations for their generous support. Every gift to UNLV is valued. It is important to us to recognize all donors correctly. Please notify the UNLV Foundation at (702) 895-3641 of any discrepancies.

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HDR Engineering, Inc.
Carolyn and Carl High
The Howard Hughes Corporation
Intrepid Engineering
Jacobs Consulting Inc.
Dawn and Christopher Johnson
Kayann 97' and Mark 01' Jongsma
JT3, LLC
KB Home Nevada, Inc.
Rita and Herbert Kelsey
Fred Khanbolouki
Kimley-Horn & Associates, Inc.
Catherine and Christopher '92 Kimmich
Jeffry King
Peter King
William King
Kleinfelder, Inc.
The Korte Company
The LandWell Company
Langan Engineering & Environmental Services
Paul Larsen
Gina and Christopher Latorre
Carol and Terry Lewis
Trudy and James Little
Lochsa Engineering
Elizabeth Lopez
Mei and Simon '97 Luk
Patricia and Marvin Maize
Marnell Corrao Associates, Inc.
Martin-Harris Construction
Ann and Timothy McCoy
Alexander Merrill
William Meyer '97
Sheila and David Morreale
Most Worshipful Prince Hall Grand Lodge
Chawn and Bennie Murray
MWH
National Security Technologies, LLC
Nevada Power Company
Nevada Society of Professional Engineers
Ninyo & Moore
Opportunity Village Arc, Inc.
Vicki and Luis '95 Palor
Parsons

PBS&J
Ken Peck
The PENTA Building Group, Inc.
David Peterson '82
E. Peterson
Janice and Scott Plummer
James Porrazzo '92
Ion Prisecaru
Rick Read '96
Carla Rickerd '95
Rinker Materials
Roel Construction Company
Douglas Rounds '02
Shalean and Curtis '00 Rowe
Joel Searles '03
Sigma Engineering Solutions, Inc.
Sletten Construction of Nevada, Inc.
Linda and Benjamin Smith
Southern Highlands Golf Club
Southwest Gas Corporation Foundation
Stantec Consulting, Inc.
Jeri and Manville '77 Strand
SWCA
T.J. Krob Consulting Engineers, Inc.
Terracon
Renaldo Tiberti
Titanium Metals Corporation
Cynthia Toepfer '90
Laura '90 and Kevin '97 Tomlinson
Tronox, LLC
Danette and Jonathan '02 Tull
David Turner '04
Howard Vandermeer '70
Sujatha and Tyagasamudram '96 Venkatesh
Mary and Troy Wade
Wade Associates
Monica Waibel
Christine Wallace
Esther and George Wallace
Ira Wallace
Richard Warren
Washington Group International
Roblyn and James '94 Williams
WRG Design
Edgar Allan Yanga '06

New Program Aims to Broaden Scope of Students Skills

Engineering students come up with ingenious creations for their senior design projects, but after the presentations are done, the great ideas – which in the past have included a device to find open parking spots in a parking garage and a battery operated contraption to carry large items such as refrigerators upstairs – are for the most part forgotten.

Students have the technical know-how to create these inventions, but lack the business skills to market them as successful products.

Eric Sandgren, the dean of the Howard R. Hughes College of Engineering, knows firsthand how important it is to integrate the two fields of engineering and business. Before coming to UNLV, Sandgren worked at several companies, including IBM. There, he created prototypes.

“Our job was to come up with really cool ideas, but we really weren’t strong on the business side. Only one of every 20 became a product,” Sandgren said. “It was frustrating to see everything else that worked end up in a closet.”

To help students stay ahead of the curve and learn how to market their ideas, the college is introducing a new program, the Mendenhall Innovation Program, in collaboration with the College of Business.

The program, which is currently seeking center status, is funded by Robert L. Mendenhall, founder and president of Las Vegas

Paving Corporation. It includes components such as a technology commercialization minor, which is set to launch this fall; internship opportunities; lecture and speaker series; and participation in innovation competitions.

“The overall purpose of the program is to make engineering more effective in the world of international commercialization business,” said Nick Fiore, director of the program.

Fiore worked in the industry for 20 years and also taught for 20 years in the College of Engineering at the University of Notre Dame.

Through his experience, Fiore learned the need for people who can combine technological abilities with business savvy.

“I have closed down many companies,” he said. “I would much prefer to help young people build things up than participate in closing things down.” ●

--Lisa Shawcroft

Watch for the fall issue of this newsletter for more coverage of the Howard R. Hughes College of Engineering’s emerging and multidisciplinary programs such as the proposed Mendenhall Innovation Program.



UNLV Photo Services

Nick Fiore joins UNLV as director of the Mendenhall Innovation Program.