

# HOWARD R. HUGHES COLLEGE OF ENGINEERING

university of nevada, las vegas

FALL  
2006



**UNLV is helping to prevent** hazardous material spills on the nation's roadways by partnering with the Department of Energy.

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## UNLV Addressing Highway Safety

Safely transporting hazardous materials is a major focal point of the U.S. Department of Energy.

Now, the UNLV Howard R. Hughes College of Engineering and the UNLV Research Foundation are assisting the DOE with a project addressing the trucking industry's shipment of hazardous materials.

The goals of the Hazardous Materials Truck Tracking Program are to prevent accidents by identifying technologies that will enhance the safe, cost-effective transport of hazardous materials and establishing an emergency response protocol if an accident does occur.

The team, which also includes Qualcomm Wireless Business Solutions, is trying to prevent accidents by addressing areas such as trailer tracking, which involves placing tracking devices on not only the cab of the truck but also the trailer; collision warning systems; critical event reporting; and electronic storage of driver's service logs.

"One of the biggest causes of accidents is when a driver makes a lane change and collides with a car in the next lane," said engineer Kenneth

Peck who, along with research professor Robert Abella, Ph.D. make up the UNLV team working on the project.

"With the collision warning system, a sensor will detect if a car is in their blind spot," Peck said.

For example, if a driver is applying the brake excessively or stopping too fast, Peck said, a transmission is sent to Qualcomm and the trucking carrier.

If an accident occurs, the driver will alert the carrier via a satellite provided by Qualcomm.

Then, the carrier will activate a Web-enabled notification system to Operation Respond Institute, a private company in Washington, D.C. which uses a database to track the contents of trucks for emergency responders. ORI will then contact dozens of qualified personnel to respond to the scene.

Trucking companies in Las Vegas, Columbia, S.C., Missouri, and Tennessee are participating in a pilot program and have equipped their trucks with these safety features.

The emergency response procedures will be tested during drills in January and February. ●

**UNLV**  
UNIVERSITY OF NEVADA LAS VEGAS

# MESSAGE FROM THE DEAN



Take a look around Las Vegas. The city is growing at breakneck speed, and graduates and faculty of the Howard R. Hughes College of Engineering are playing a major role in the region's expansion.

- Civil engineering and construction management graduates drive the local construction industry.
- Computer science, electrical engineering, and computer engineering graduates are leaders in the gaming industry.
- Mechanical and civil engineering graduates support the local infrastructure including power, utilities, and transportation planning.

New engineering programs have been introduced which will meet the demands of Las Vegas' commerce. For example, the School of Informatics, which launched this semester, offers graduate and undergraduate degree programs that combine information technology with other academic disciplines. The most popular and newest informatics areas are digital cinematography, design of interactive IT systems for resorts and casinos, and digitizing the choreography of stage productions.

In addition, the college generates more external funding for research than any other college on campus, which allows us to help improve the quality of life for residents of Southern Nevada. Current research projects that affect the Las Vegas community include the modeling and remediation of water quality in Lake Mead, forecasting the location and likelihood of earthquakes in the valley, solar energy generation and utilization, hydrogen production, identity theft and financial fraud prevention, reducing risk in the transportation of hazardous materials, and unmanned arial vehicles.

We in the Howard R. Hughes College of Engineering are proud to live in the great city of Las Vegas and to be an integral part of the UNLV family. Las Vegas is a better place, thanks in a large part to the important work conducted by our current and former students, advisory board members, and our talented faculty and staff. Thank you for making us proud and for helping build the Las Vegas community.

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



**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](mailto:caleen.johnson@unlv.edu).

**Pledges through the Rebel Ring Phonathon.** Next spring, students will phone our alumni and other friends to share college news and ask for support of its programs.



## CAREER SERVICES OFFERS ASSISTANCE TO ALUMNI

The UNLV Career Services can assist alumni and students at every step in their career development. From deciding on a major to preparing for the job search or posting employment opportunities within your business, Career Services is a one-stop shop with many advantages for our engineering family.

Alumni looking to return to UNLV for a second degree can use the resources at Career Services to help plan their course of study. Those looking to change careers are also welcome.

"We work with a lot of career changers," said Don Snyder, one of the career counselors.

To facilitate a career change, Career Services offers videotaped mock interviews and can help alumni refresh their resumes and cover letters and gear them toward a new industry.

"We try to tailor our help toward their particular situation," Snyder said.

To find open positions, alumni can take advantage of Career Link, a computer based job and internship database that is available to members of the UNLV Alumni Association at no cost. Alumni can use this system to search for jobs, post resumes, or schedule on-campus interviews. Career Link is also available to alumni who are employers and want to hire students.

Snyder also invited alumni to take part in Career Day, which will be Feb. 28 at the Thomas & Mack Center, and on-campus employer panels scheduled throughout the semester. For more information on these events and a full listing of services the Career Services provides, visit <http://hire.unlv.edu/alumni/alumni.html> or call (702) 895-4661.

## Welcome Dr. Ashley

As UNLV welcomed students for the fall semester, another new face was working his way across campus – David B. Ashley, the university's eighth president.

Ashley took over as president in July and since then has been touring the campus and meeting with community members to learn more about the university and how he can elevate its academic and research programs into greater prominence.

"Communication is important to me," Ashley said. "I want to continue to listen, learn and engage all in the process of further building UNLV's research agenda and elevating its academic stature."

"UNLV is a remarkable university," Ashley continued. "What excited me about coming to UNLV, and what continues to excite me, is that dramatic institutional changes have been propelled by a research agenda."

Ashley previously served as executive vice chancellor and provost at the University of California, Merced, where he helped build its academic and research programs from the ground up. He was also the dean of engineering at the Ohio State University and has held various faculty and administrative positions at the University of California-Berkeley, the University of Texas at Austin and Massachusetts Institute of Technology.

His professional experiences in civil engineering and construction management include working on the expansion of the Panama Canal, San Francisco-Oakland Bay Bridge, and the subway system in Taipei. ●

## Professor Selected for Institute

Ajit K. Roy, Ph.D., associate professor of mechanical engineering, was one of two professors recently selected as a fellow of the British Institute of Materials, Minerals & Mining. He was chosen in recognition of his outstanding research, contributions to materials science, and his pioneering research work in high-temperature tensile deformation, plasticity-induced residual stress and environment-induced degradations of numerous engineering materials and alloys. During his career, Roy has authored more than 75 journal and conference publications. ●



## Zero Energy Home Lives Up to its Name

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More than a year into an 18-month study of a southwest Las Vegas home that was modified to be energy efficient, researchers have already gained insight into how residential energy consumption can be reduced.

This is beneficial, because the house, located in a Pinnacle Homes subdivision, was recently sold.

Bob Boehm, Ph.D., director of the UNLV Center for Energy Research and distinguished professor in the College of Engineering, said it's not clear if the new owners will allow researchers to continue monitoring the house, but the data they have gathered in the past year will still allow them to demonstrate that a Zero Energy Home uses significantly less electricity than a traditional home.

"The modifications on the Zero Energy Home have made a lot of difference," Boehm said. "It appears we generate more electricity than we use. The

home uses much less electricity, especially when it comes to air conditioning and lighting."

The project was launched last fall by the UNLV Center for Energy Research along with Pinnacle Homes, Nevada Southwest Energy Partnership, and Nevada Power. The Department of Energy's National Renewable Energy Laboratory and ConSol provided technical and design project support.

A Zero Energy Home, a designation from the U.S. Department of Energy, combines cutting-edge energy efficient construction and appliances with renewable energy systems such as solar paneling. As a result, the home can generate more electricity than it consumes, and the excess energy is directed back into the utility grid.

The project called for the construction of two nearly identical, 1,610 sq. ft. houses side-by-side. Only one was outfitted to be zero energy so the

## Wanted: Your UNLV Memories

As UNLV's 50<sup>th</sup> anniversary approaches, officials are asking employees, alumni, students and other friends to scour their homes and offices for memorabilia to be included in next fall's anniversary exhibit at the Barrick Museum.

The temporary exhibit will be the biggest the museum has hosted and it will chronicle UNLV since the opening of its first building, Maude Frazier Hall, in 1957. The exhibit will focus on campus life and the changing makeup of the student body, academic development, and architectural changes.

"The exhibit will celebrate all the people who have been part of the Rebel family for 50 years," said Schyler Richards, chair of the anniversary committee. "UNLV's history is so much more than the buildings we've built and the programs we added. We hope the people who have lived UNLV's history will share their memorabilia and, more important, the stories behind their pieces."

Organizers are most interested in uniforms, megaphones, beanies, homecoming sashes, correspondence and university documents, programs, posters, tickets, student election paraphernalia and personal snapshots. For more information, please contact the Barrick Museum at (702) 895-3472. ●





## Howard R. Hughes College of Engineering Advisory Board Members – Fall 2006

energy performance of the two houses could be evaluated and compared.

“The two houses started life on architects’ drawing boards, and they are almost the same, but the Zero Energy Home has a lot changed under its skin,” Boehm said.

The two major differences in appearance between the two houses from the outside are that the roof of the Zero Energy Home, which has flat tiles, was rotated 90 degrees, giving it more south-facing roof area and allowing for more sunlight to be captured. The Zero Energy Home also has a solar hot water heater on the roof.

Boehm and several of his students, Elena Wilkinson, Rick Hurt, Robert Majeda, and Sandor Rosta have spent the last year tracking data via simulations and by monitoring the 87 sensors installed between the two homes.

Boehm said he envisions an entire housing development of Zero Energy Homes in Las Vegas. There are several such communities in California.

A Zero Energy Home can cost up to \$25,000 more than a conventional home, but that cost is expected to be lowered as new technology is developed.

“The builder learned a lot from this,” Boehm said. “We’ve had a downturn in the housing market in the last several months and that always causes builders to wonder what they should be doing differently. Something like this could be a whole development but with the houses built on a larger scale.”

The data collected can be viewed at the Web site: [www.zeh.unlv.edu](http://www.zeh.unlv.edu). ●

## New Informatics Professor Focused on Security

Ju-Yeon Jo’s work keeps your information safe, although you might not realize it. Jo recently joined the new School of Informatics, specializing in cyber security.

“For example, when you surf the Internet, you will sometimes see a lock icon in a corner of the web browser,” Jo told Inside UNLV. “That’s a secure site indicator. Most people wouldn’t care why the icon showed up, what the digital certificate is, or how secure that website is. That’s where my research comes in. I study the things under the hood, like the interaction between the web browser and the server, or checking whether a hacker can see the message content or create a fake message.”

Jo previously worked at California State University, Sacramento; Lucent Technologies; and Bell Labs. She earned her degree from Case Western University in 2003. ●



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- James F. Wunderlin, Southwest Gas Corp. ●

# Construction Management Program Launches New Scholarship

The construction management program is offering a new scholarship designed to encourage top-ranked high school students to pursue careers in the field.

The \$2,000 scholarship, funded by local construction and engineering firms, is renewable for an additional three years, and also includes a summer internship. David Shields, Ph.D., director of the construction management program, and the college advisory board, led by Greg Korte of the Korte Company, are administrators of the scholarship.

The program is a win-win situation for students and the sponsoring companies. It will result in an increased the number of highly-qualified students majoring in construction management and allow the companies to employ and train a quality construction management intern during the summer, which could result in an offer of full-time employment upon graduation.

Applicants must be UNLV freshmen pursuing a bachelor of science degree in construction management with a minimum of 15 hours per semester. Scores on the math portion of the SAT must be 560 or higher or 25 or higher on the ACT. Interested students must complete a UNLV scholarship application and the Howard R. Hughes College of Engineering scholarship application.

For additional information, please contact David Shields at [david.shields@unlv.edu](mailto:david.shields@unlv.edu). ●

# UNLV Innovating Character Recognition Technology

In the dimly-lit computer science lab at UNLV's Howard R. Hughes College of Engineering, graduate student Dean Curtis is studying a scanned form on a flat screen computer monitor.

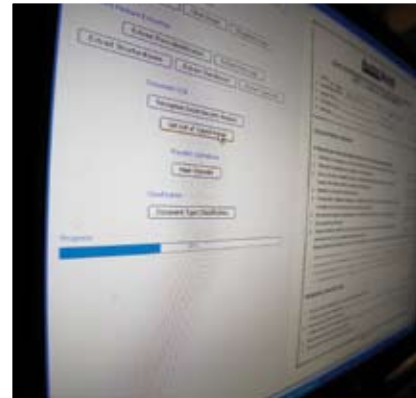
With a click of a mouse, a series of handwritten numbers from the form is converted into type.

Curtis and seven other students are part of a team working under Angelo Yfantis, Ph. D., professor of computer science, on a document information extraction project that reads data on paper forms and stores the information electronically.

While optical character recognition has been around for years, Yfantis' work in applying it to forms – differentiating between handwriting and typewritten text, the removal of lines, and identifying checkboxes, for instance – breaks new ground.

The military, schools, law enforcement agencies, hospitals, and any industry that uses paper forms would find such technology useful, Yfantis said. He predicts a future in which the software will be found in any office setting.

"This software is going to be huge until we are digitally immersed and no longer fill out forms by hand," Yfantis said.



# Library Liason Available to Assist Researchers

The College of Engineering welcomes our Lied Library liaison, Patrick Griffis. He assists students and alumni with research, accessing online resources, computer use, and obtaining material from other libraries. He also coordinates hands-on instruction sessions tailored to course assignments as well as sessions covering general research skills. The library has an engineering and computer science electronic resource that includes many electronic databases and Web sites that are excellent reference tools. For more information: <http://www.library.unlv.edu/>. Griffis may be contacted at [patrick.griffis@unlv.edu](mailto:patrick.griffis@unlv.edu) or at (702) 895-2284. ●





of human involvement.

“The idea is to have no human interaction with the forms,” graduate student John Bunch said. “A computer’s time is cheap and a human’s time is expensive.”

He applied for a patent last year, and Apogen Technologies, a Virginia-based technology research firm with an office in Las Vegas, has been testing the software and giving the team feedback.

Paper forms occupy a great deal of expensive storage space, and with this technology, there will be no need for the warehousing of boxes of paper documents, Yfantis said.

Before the data can be extracted from a document, it needs to be scanned by a person, but that is the extent

Yfantis sees this technology being used not only to read data on new forms, but also on forms that are hundreds of years old.

“It could be used on military records from the Civil War through today,” he said. “Some forms might be old and wrinkled, and we are able to do image processing to clean up those wrinkles and have the computer understand the handwritten information.”

Having these older documents in electronic form will allow multiple people to view simultaneously while conducting research, Yfantis said. ●

## Leak Researchers Work to Save Energy

Most Southern Nevadans run their home air conditioners for months at a time, resulting in wasted energy and high bills.

A group of UNLV faculty and students, led by Samir Moujaes Ph.D., is trying to combat that problem by researching air duct leaks.

According to Moujaes, research shows that residential construction leakage rates can be as high as 30 percent, meaning that residents are paying for 30 percent more energy than they are using. As part of this two-year research project, Moujaes and his team are developing new ways to detect the leaks. They hope to implement these techniques on about eight test homes in the second phase of the project, beginning in March.

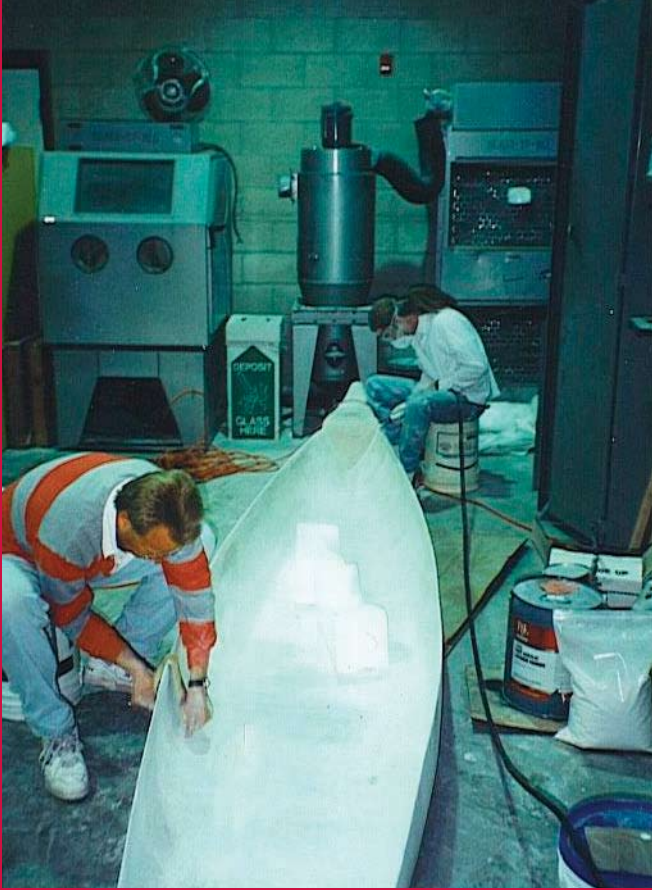
“What we’re doing is not your typical research where you do the research, publish the results and move on to the next project,” Moujaes said. “We want to know how you actually apply it.”

The project is supported by the National Center for Energy Management and Building Technologies through funding from Department of Energy. ●



**Graduate student Radhika Gundavelli**, Samir Moujaes, graduate student Dhandapani Selvaraj, Ken Teeters, and postdoctoral researcher Nabil Nassif.





## A Concrete Boat Can Float

Concrete isn't the first thing that comes to mind when it comes to boat construction, but members of the Rebel Concrete Canoe Club can prove that concrete can float.

Members are building a concrete canoe for the 20<sup>th</sup> Annual National Concrete Canoe Competition, and they are looking for alumni to help support the team by joining the Rebel Concrete Canoe Booster Club.

The Booster Club aims to promote consistent and rigorous design and raise awareness of the civil engineering profession.

"The goal of the Booster Club is ensuring design continuity so that the product gets better every year," Booster Club member Paul Villaluz '06 M.S., said.

Alumni and friends are invited to casting day on Feb. 18, and the unveiling dinner on March 30.

For further information about the team or the Booster Club, please call (702) 806-6239 or log on to [www.rebelconcretecanoe.com](http://www.rebelconcretecanoe.com). ●

## Rumble Strips Keep Drivers Safe

A study conducted by the Transportation Research Center concluded that rumble strips – grooves along the shoulders of Nevada highways – do improve safety by reducing the number of single-vehicle crashes.

The research project, "Evaluating the Effectiveness of Continuous Shoulder Rumble Strips in Reducing 'Ran-Off-Roadway' Single-vehicle Crashes" was conducted over the course of the past year. The study was sponsored by the Nevada Department of Transportation.

The project team evaluated safety records from 1995 to 2003 for roadways in Nevada that have continuous shoulder rumble strips. During that period, there were 33,000 crashes in which vehicles went off the side of the roadway, and 772 were fatal.

Other key data considered in the analyses include the locations and dates of installation of continuous shoulder rumble strips, posted speed limits, and average daily traffic volumes.

Analyses of the data show that overall, the rumble strips significantly reduce single vehicle "ran-off-roadway" crashes.

In Nevada, rumble strips are typically installed continuously along the shoulders of roadways and are about seven inches wide, 16 inches long and are placed perpendicular to the travel lane.

Tires passing over the rumble strips cause vehicles to vibrate, alerting drivers that the vehicle is drifting off the roadway and allowing them to take corrective action. ●

## College Fund Raiser Honored

The Association of Fundraising Professionals, Southern Nevada Chapter, recently named Caleen Norrod Johnson, director of development for the Howard R. Hughes College of Engineering, the year's outstanding fundraising professional. Johnson, a certified fund raising executive, has raised more than \$4.3 million since coming to Las Vegas in 2000. Before coming to UNLV, she worked for The Nature Conservancy of Nevada. A professional fund raising executive for 23 years, Johnson has raised more than \$38 million for nonprofit and educational institutions. ●



# Spring Calendar of Events

## Feb. 18 - 24 National Engineering Week

Numerous activities on campus: ASCE employer fair, ASCE concrete canoe casting, featured presentations, and recruitment open houses. For more information: [www.egr.unlv.edu](http://www.egr.unlv.edu).

## March 30 - 31

### The 3<sup>rd</sup> Annual Las Vegas Regional FIRST Robotics Competition

8 a.m. - 4 p.m. at the Thomas & Mack Center. For more information: <http://www.lvfirst.org> and <http://www.usfirst.org>.

## April 30

### Annual College of Engineering Honors Convocation

5:30 - 7:30 p.m., Richard Tam Alumni Center.

## May 2

### Senior Design Competition

8 a.m. - 4 p.m., The Great Hall.

## May 4

### The 6th Annual Senior Design Dinner

6 - 9 p.m., Cox Pavilion. Guest speaker, UNLV President David B. Ashley. ●



## Air Force ROTC Celebrates First Anniversary

UNLV's Air Force Reserve Officer Training Corps Detachment 004 marked its first anniversary this fall by welcoming twice as many cadets into the program as it had last year.

The increased number in cadets is just one indication of the group's success.

Over the summer, the detachment sent its first group of nine cadets to Maxwell Air Force Base in Alabama and one to Ellsworth Air Force Base in South Dakota to attend field training. Field training is a four-week encampment designed to evaluate the cadets' leadership potential to become an officer in the United States Air Force.

"People implied that it was going to be tough out there and it was, but you learn so much that it was worth every minute," Cadet Robert Wilcox

said. "I have always respected my freedoms, but the training has given me a new respect for the freedoms I have as an American."

The detachment has also planned and supervised events such as the air show at Nellis Air Force Base in the fall, a NASCAR booth in the spring, and a fireworks booth in the summer.

All events have been successful recruiting and fundraising, which are activities that ensure the possibility of future events such as Dining Out this fall and the annual Military Ball in the spring.

An honor guard was established and has presented the colors at the university basketball games, football games, FIRST Robotics competition, college ceremonies, and other special events. ●

## Math Whiz Awarded Grants

Mechanical engineering student Lucas Bang recently received two prestigious awards: The Nevada NASA Space Grant Consortium Scholarship, which is a \$5,000 award, and the Satish Bhatnagar Top Math Student, a \$600 award. Bang is pursuing bachelor's degrees in both mechanical engineering and applied mathematics.

"I am incredibly grateful to be selected for both of these awards," Bang said. "I would especially like to thank Dr. Bhatnagar, Dr. Costa, Dr. Trabia, and Paula Adkins for their help and encouragement."

The Nevada Space Grant Consortium Scholarship is one of many scholarships that NASA provides. In the state of Nevada, there were six awards presented for \$5,000, and 12 awards for \$2,500. The scholarship is for students who show an interest in pursuing careers in aerospace related fields. For more information: <http://www.unr.edu/spacegrant/about/nvspacegrant.html> ●

# INVENT THE FUTURE

## Mendenhall Innovation Program to Bridge Engineering-Business Partnership

Microsoft chairman Bill Gates once said, "Never before in history has innovation offered promise of so much, to so many, in so short a time."

His words, spoken about technology's future, are prophetic for what is on the horizon at UNLV.

The Howard R. Hughes College of Engineering is coupling entrepreneurship and design with plans for the Mendenhall Innovation Program, a track that will integrate students' engineering and business savvy.

The program is designed to make engineering studies more effective as students adapt to the workforce. Students enrolled in the program will find their schedules a mix of engineering and business courses to enhance their communication, teamwork, business, and creative skills.

Dean Eric Sandgren said that students will also balance their engineering expertise with an understanding of how to protect and promote their intellectual property.

"This is an important part of the puzzle for UNLV's efforts as a major research university," Sandgren said.

The program's roots reach to the Senior Design Competition, where students undertake comprehensive design problems in a two-semester capstone class. Named for benefactor Robert Mendenhall, founder and president of Las Vegas Paving Corporation, the Mendenhall Innovation Program will encompass students' entire academic careers.

Mendenhall sees promise within UNLV, noting that students' involvement in the program will help take their ideas from working models to the complex world of marketing.

"We have many local students with the desires to try something new and hopefully find a market," he said.

Mendenhall, whose innovative approaches launched America's first recycled highway in the 1970s, committed private support to start the program. No stranger to entrepreneurial ideas, his numerous other inventions benefit the construction industry and conserve natural resources.

The private support will help the program's development, and also fund scholarships to sustain students through the enhanced coursework. The interdisciplinary classes – some of which will be outside of the college's established offerings – will likely take students beyond the traditional four or five year completion rate.

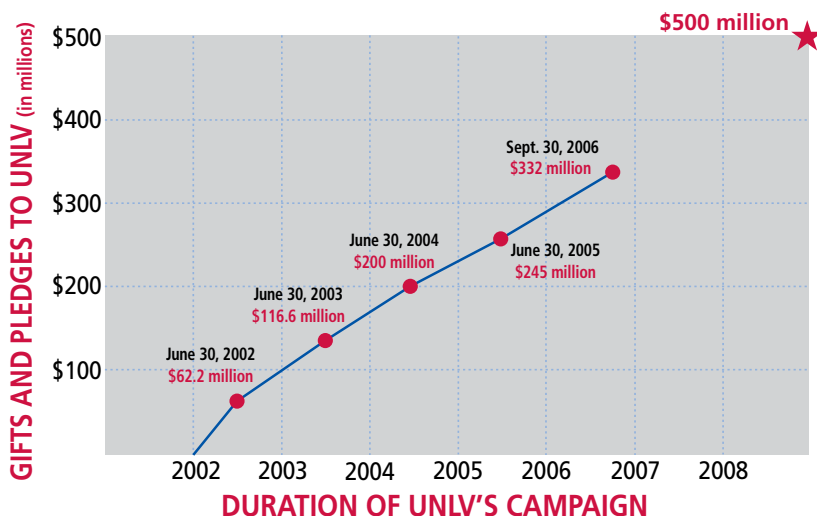
Sandgren said that additional future gifts through the Invent the Future campaign will expand the program's scope to include faculty support, graduate studies, and incubator space.

"If we are successful," he said, "the next Bill Gates may well come from our college." ●

### HOWARD R. HUGHES COLLEGE OF ENGINEERING

#### CAMPAIGN FUNDING PRIORITIES

- Science and engineering building
- Entertainment engineering
- **Mendenhall Innovation Program**
- Renewable energy and materials
- Unmanned Aerial Vehicle Center



**Invent the Future** is UNLV's first comprehensive effort to secure the promises of tomorrow through a \$500 million fundraising initiative. With your help, private funding for students, faculty, research, facilities, and programs will map a course for Las Vegas' next decade.



# DONOR HONOR ROLL

This roll of honor recognizes the contributors to the Howard R. Hughes College of Engineering from Jan. 1 to Oct. 20, 2006. The college wishes to thank the following individuals, corporations, and foundations for their generous support. Every gift to UNLV is important. It is our wish to recognize all donors correctly. Please notify the UNLV Foundation at (702) 895-3641 of any discrepancies.

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Anthony Hills '94  
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Andrea '97 and Neil '95, '98  
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Energy and Business  
Nevada Community  
Foundation  
Nevada Power Company  
Nevada Title Company  
Jacqueline Newton  
O'Rourke Plumbing Inc.  
Lisa and Nick '03 Oana  
P.R. Engineering  
Parsons Brinckerhoff Group  
Lynda and Jesse Paulk  
PBS & J  
The PENTA Building Goup Inc.  
Poggemeyer Design Group Inc.  
Samantha Porter '05  
Precision Aggregate Products  
LLC

Randy Innis & Associates Inc.  
Red Rock Community Bank  
Linda and Charles Reed  
Kitty Rodman  
Roel Construction Company  
RSSG Inc  
Billie and Stephen Schmidt  
Dion Segler  
Ellen and Steve Shearing  
Sierra Pacific Resources  
Simplefy  
Ruth and James '88 Skaggs  
Sletten Construction of  
Nevada Inc.  
Southern Nevada Chapter  
ASPE  
Southwest Gas Corporation  
Foundation  
Stantec Consulting Inc.  
Gloria and Tony '91 Statom  
Cheryl and Les Sully  
Technology Ventures  
Corporation  
Thomas J. Keating D.D.S.  
J.A. Tiberti \*  
Tiberti Family Foundation  
Tiberti-Blood Inc.  
TIMET  
Cynthia Toepfer '90  
Tony Dimaria Salon Inc.  
Tronox LLC  
Patricia McLaury and David  
'04, '06 Turner  
Venture Catalysts LLC  
Luis Villegas '00  
Jody Walker '97  
Christine Wallace  
Kelly '97 McBride-Watson and  
Roger '85 Watson  
Weaver Construction Inc.  
Wells Fargo Foundation  
Lora and John '98 Wichmann  
Connie Willingham '81  
Tim Wilmott  
Clyde Wilson '04  
Edward Yu '89  
YWS Architects  
Jichun Zuang '91

\* = deceased



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## Volunteer Provides Catalyst for College Partnerships

While Judi Dohn doesn't have a title on her business card, it does feature four words that describe exactly what she does: analyze, energize, maximize, and capitalize.

As the principal for Venture Catalysts LLC, she nurtures ideas through a business incubator, participation in technology organizations, and work with private clients; she's part mentor, cheerleader, catalyst, and matchmaker. Dohn, who is on the state's technology council and the Technology Business Alliance Network, brought this same approach to the College of Engineering when she joined its advisory board three years ago.

"Judi is committed to helping in any way she can," said Dean Eric Sandgren. "She was the driver for our entertainment engineering and innovation programs, helping us create synergistic relationships with parts of these communities."

Dohn taught a new venture creation class last year, a forerunner for the emerging Mendenhall Innovation Program. She applauds the college's direction to couple

engineering coursework with business savvy, creating what she calls "the multi-dimensional engineer."

"We're starting to learn we can't be traditional in our learning approach," Dohn said. "The big push at the major engineering schools now is on innovation and creativity. We want engineering students to not only understand the fundamentals of design and development, but to also the business and economic aspects of product development, intellectual property, and market issues."

Dohn also worked with faculty and other advisors to fashion the entertainment engineering major. The bachelor of science degree, which combines critical engineering elements with artistic technology, will be offered through the Colleges of Engineering and Fine Arts beginning in the next academic year.

"The entire college advisory board is excited about this dynamic new program," Dohn said. "We believe it will help attract new students to the engineering college." ●

**WE WANT TO HEAR FROM YOU!** SEND US YOUR PERSONAL AND CAREER UPDATES.

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Home Phone \_\_\_\_\_ Work Phone \_\_\_\_\_

Degree \_\_\_\_\_ Graduation Date \_\_\_\_\_

Occupation \_\_\_\_\_ Employer \_\_\_\_\_

Your News \_\_\_\_\_

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Please fax or mail this form to: Caleen Johnson, Howard R. Hughes College of Engineering, 4505 Maryland Parkway, Box 454005, Las Vegas, NV 89154-4005. Fax: (702) 895-4059

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