

University of Idaho

A LEGACY OF LEADING

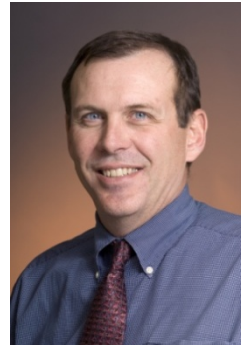
A LETTER FROM THE DEAN OF THE COLLEGE OF ENGINEERING

Biological and Agricultural Engineering
Chemical Engineering
Civil Engineering
Computer Science
Electrical and Computer Engineering
Materials Science and Engineering
Mechanical Engineering

May 12, 2009

Dear Idaho Engineering and Computer Science Alumni and Friends,

On April 22, 2009 the Idaho State Board of Education selected **M. Duane Nellis** as the 17th President of the University of Idaho. He will begin his appointment as president on July 1, 2009. Nellis has served as Kansas State University's provost and senior vice president since 2004 and previously as dean of the Eberly College of Arts and Sciences at West Virginia University. He was born in Spokane, WA and married his wife, Ruthie, while pursuing his bachelor's degree in geography at Montana State University. He received his master's and doctoral degrees in geography at Oregon State University. I welcome Dr. Nellis to this great institution and congratulate him on receiving the honor of serving our University. In the last year, **President Steven Daley-Laursen** has led the University of Idaho through a complex chapter of its very long and proud history with great skill, understanding and vision, and the University is grateful for his leadership.



Dean Don Blacketter
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On May 1, our 17th annual **Engineering Design EXPO** impressed hundreds of visitors, students and judges with innovations for the future. The inventive efforts of more than 250 engineering students involved in 55 senior projects were truly impressive. Their final designs were presented to faculty, alumni, and industry partners and were judged on project purpose, detail, design and real work applicability. The EXPO book is available at www.engr.uidaho.edu.

The winning booth exhibits:

Ski Force Analysis System: *Josh Hartung, Cameron Stefanic, Jesse Kappemeyer, Anjil Giri, Safal Kshetri*

El Salvador Irrigation Project: *Kara Eby, Angelina Cernick, Alexander Edstrom, Manuel Diaz Gonzalez, Steve Schneider*

Electrochemistry of Copper Electrodeposition on Diffusion Barriers for Interconnect Technologies: *Natalie Gese, Sohana Khanal, Toni Gutknecht, Tess Howell, Lindsay Barnett, Frank Battik*

Boeing Set-Point Block: *Abraham Shryock, Brandon Butsick, Benjamin Shropshire, Nathan Thomas*

Sand Slurry Pump: *Jessie Holderman, Beth Madsen, Adam Oster*

Electrochemistry of Molten Salts for the Recovery of Actinide Elements: *Natalie Gese*

The winning posters:

Water Infrastructure for City of Moscow: *Ben Coryell, Ashley Hobbs, Cara Haley, Ryan Lewis*

Christy Custom Home: *Aaron Lewis, Kevin Funke, Charles Molthen*

TVBMS for Hybrid Electric Vehicles: *Brittany Muntiferling, Andrew Weakley, Duane Elgan, David Smith*

The winning technical presentations:

Converting Wind Energy to Mechanical for Water Filtration: *Thor Kooda, Sean Penberthy, Matthew Sorge, Mike Price*

Micrometeoroid and Orbital Debris Impact Detection: *Alex Swanson, Jay Hirata, Matt Arnone, Matthew Hinkelman, Matthew Mihelish, Nicholas Harris*

El Salvador Irrigation Project: *Kara Eby, Angelina Cernick, Alexander Edstrom, Manuel Diaz Gonzalez, Steve Schneider*

Vandal Educational: *Tyler George, Nicole Hochstrasser, Benjamin Johnson, Davin Sands, Kevin Waring*

Large-Scale Vehicle (LSV2) Battery Charger Redesign: *Christopher Douglas, James Randall, David Hooker*

The winner of the people's award:

RLEP Lunar Instrument Launcher: *Tim Palmer, Eli Henson, Matt Cerro, Nick Yankee, Achala Akuretiya (KC), David Mehaffey, Mark Pennington.*

Tremendous thanks goes to **Bill Eisinger** for his role as **EXPO Honorary Chair** this year. The exciting grand opening of the **POWER Center for Power Engineering Excellence** was held on May 1. Now, engineering students on this campus will have the chance to work with real-time power systems thanks to this distinctive partnership with and a generous donation from **POWER Engineers**.

I want to acknowledge and thank our **EXPO Distinguished Speaker, Russell Strong**, who traveled from Washington D.C. to present his talks on logic-based solutions and the advancement of robotics. Russ's presentation is available on our web site at www.engr.udaho.edu.

At the Dean's Reception on April 30, we honored three remarkable individuals for their lasting contributions to the field of engineering, to the College of Engineering and to the University of Idaho. Our distinguished honorees are **Janet DeVlieg Pope, Wendell Satre and George Russell**. Dean's Reception honoree pictures and biographies are available at www.engr.uidaho.edu.

Over 100 future engineers found inspiration from College of Engineering students at EXPO 2009. The visiting students ranged from elementary to high school age and participated in the **EXPO Innovators** program, giving them an exclusive opportunity to interact with college students and experience the engineering innovations first-hand. To give high school students the opportunity to learn basic engineering principles through the hands-on application of robotics, the College of Engineering also hosted the second annual **Vandal Robotics Challenge**. This year ten teams from Idaho, Washington and Oregon competed in the exciting competition on May 2.

The College of Engineering also had 400 students in teams of fifth and sixth grade students gather on May 1 at the Moscow Junior High School as part of the 2009 **Idaho Teaching Engineering to Children (TECH) Mars Rover Challenge**. The students and their parents visited the senior design projects at EXPO. The NASA Idaho Space Grant Consortium's TECH Challenge tested the engineering skills of students using LEGOS to create a motorized Mars rover.

On behalf of the College of Engineering I would like to recognize all our industry partners for their support of EXPO, the Student Outreach Program, and for their generous support and inspiration to attract students to engineering and science. Thank you to the **Avista Foundation, the Boeing Company, Itron, the Micron Foundation, POWER Engineers** and **Schweitzer Engineering Laboratories**.

Like many engineering fields, the transportation industry is in need of encouraging young engineers to pursue the many opportunities that are available. Many high school students are not aware of the career choices and opportunities that exist in this industry, so the United States Department of Transportation (USDOT) and the Federal Highway Administration (FHWA) have established various educational initiatives, including the National Summer Transportation Institute (NSTI) to stimulate interest in secondary school students, and attract a broad and diverse selection of bright minds who may be interested in selecting a career in the transportation industry. In order to extend the reach of the NSTI programs, The **Federal Highway Administration** has **generously contributed \$59,000 to the College of Engineering for the 2009 Idaho Junior Engineering, Math and Science (JEMS) summer program** to become the Idaho partner of this national educational initiative. Designed for students who have completed at least their junior year of high school, the JEMS summer camp provides an introduction to engineering through study of real-world problems within their technical and social contexts.

The Idaho JEMS curriculum includes classes in engineering design, computer-aided design, problem-solving and introductory engineering taught by College of Engineering professors. Each year classes specific to a design project, such as environmental engineering, computer programming, robotics, or computer graphics, are also offered. This year, students will explore the future of our country's infrastructure through the **JEMS Summer Transportation Institute** and will design alternative energy vehicles to compete in several exciting challenges.

Thanks to the generous support of the Federal Highway Administration, up to 20 JEMS students will receive financial assistance to attend this summer's program. Please visit www.engr.uidaho.edu/jems2009 for more information and registration for the **JEMS – Junior Engineering Math and Science Program**, July 12-24, 2009. Application Deadline is May 29, 2009.

Congratulations to our nuclear engineering faculty!!! The University of Idaho was awarded 5 of the 71 university nuclear research project awards as part of the Department of Energy's investments in cutting-edge nuclear energy research and development (R&D). Under the **Nuclear Energy University Program (NEUP)**, these 71 projects will receive approximately \$44 million over three years to advance new nuclear technologies in support of the nation's energy goals. The College of Engineering will receive nearly \$3 million in support of these projects. Our faculty work with the **Center for Advanced Energy Studies (CAES)** to help develop the next generation of advanced nuclear technologies and the **NEUP** will play a key role in addressing the global climate crisis and moving the nation toward greater use of nuclear energy. Please visit www.caesenergy.org.

I'm delighted to congratulate **S.J. Jung** and the College of Engineering for receiving the **Congressionally-directed grant of \$238,000** to develop a mining and mine-safety curriculum.

Jeffrey L. Young receives great accolades for the third phase award by the **Office of Naval Research** for the investigation of ELF Signals associated with mine warfare as the **University of Idaho and Acoustic Research Detachment** collaboration for **\$787,000**.

Congratulations on the success of two **University of Idaho Research Council Awards**, one to **Jay McCormack** in the department of mechanical engineering and a second to **Erik Coats** in the department of civil engineering. The process this year was very competitive, with only 13 of 48 proposals selected.

Congratulations to **Professor Ed Schmeckpeper** and the civil engineering student team for qualifying to compete in the **2009 National Student Steel Bridge Competition**, May 22-23, at the Thomas and Mack Arena in Las Vegas.

We are pleased to recognize **Rachel Bonas**, graduate computer science student and president of the University of Idaho Chapter of the National Society of Black Engineers, for receiving the **Associated Students of the University of Idaho (ASUI) Outstanding Officer of a Student Organization** award. This is given to an officer who has found innovative means to make their club more active and efficient on campus. It's notable that other societies on campus recognize Rachel's leadership attributes as an outstanding example for the university community.

The prestigious **Outstanding Graduate Student Teaching Award** was presented last month to mechanical engineering graduate student **Dan Cordon**. An interdisciplinary selection committee composed of faculty and graduate students reviewed nominations and the awardee was selected by the Dean of the College of Graduate Studies based upon recommendations of the committee. This award is to support and recognize outstanding teaching by graduate students at the University of Idaho.

CONGRATULATIONS to our 143 undergraduate and 54 graduate engineering and computer science graduates on the successful completion of their degree requirements! Moscow Commencement will take place on May 16 in the Kibbie Dome. The main ceremony includes a commencement address by **Idaho Congressman Walter C. Minnick**. Individual college receptions, such as the College of Engineering's gathering, will be held on south side of the Jansen Engineering Building immediately following the main ceremony.

I look forward to visiting with you at the **Idaho Society of Professional Engineers** annual meeting on June 11 at the Coeur d'Alene Best Western Inn. See you then!

Sincerely,



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Dean, College of Engineering

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