



The Newsletter of the Department of Nuclear Engineering

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NANT Undergraduate Scholarships

The National Academy for Nuclear Training (NANT) Scholarship program awards scholarships to college students who have demonstrated outstanding academic achievement and who are interested in pursuing careers in the nuclear power industry. For the 1999-2000 academic year, 37 new undergraduate scholarships of \$2,500 have been awarded nationwide to nuclear engineering students. Eight students (22% of the total awards) in the Nuclear Engineering department at UMR are recipients of new NANT scholarships. The students include five sophomores: Michel Call, Micah Hackett, Dale Waller, Tracia West, and Gary Wilburn; two juniors: Tyson Bourbina and Corie Reeves; and one senior: Michael Clayburn. Congratulations to all the students!

WHAT'S INSIDE?

Page 2
Chairman's Message
Grants
Summer Jobs

Page 3
Alumni News
Response Form

Page 4
Gifts

NSF Student Research Fellowships

The National Science Foundation (NSF) has announced the award of 256 three-year Graduate Research Fellowships for fiscal year 1999. The fellowships are awarded to outstanding college and university students as part of NSF's effort to improve the vitality and excellence of the U.S. human resource base in engineering. Included in the fellowships were 70 awards for women in engineering. The Graduate Fellowship program is one of NSF's oldest programs, with roots in NSF's original 1950 charter.

Two graduate students in the Nuclear Engineering department at UMR have been awarded a Graduate Research Fellowship. They are Rachel Lynn Ragland and Jeffrey Dean Shelton.

The fellowships provide a stipend of \$15,000 per year for fulltime graduate study. NSF also provides to the awardee's school an annual cost-of-education award of \$10,500 in lieu of all tuition and required fees at U.S. institutions.

The three years of support may be used within a five-year window, during which time students may suspend receipt of their fellowship in order to incorporate teaching or work experience into their graduate education.

ANS Scholars

Michel A. Call (Junior) and Tricia L. West (Sophomore) in the Nuclear Engineering department have each been selected to receive an ANS scholarship of \$2000 for the 1999-2000 academic year. ANS also awarded Jeffrey D. Shelton a \$3000 graduate scholarship for the 1999-2000 academic year.

Phonathon 1999

This year's Phonathon is scheduled for October 3-6, 1999. Nuclear Engineering students will be contacting you during this time period. Your generous contributions allow us to assist our students with the costs of attending UMR and greatly aid our recruitment efforts. In addition, we can upgrade our labs by providing matching funds for equipment purchases. We look forward to talking to you again!

MORE TO COME 

Message from the Chairman

Greetings from the Nuclear Engineering department!

Last year was an exciting year for us. We made substantial progress in a number of areas including funding for scholarships, laboratory equipment, summer employment for our students, and with our interaction with national laboratories and nuclear utilities. Unfortunately, we also had a setback in enrollment. Although the enrollment has caught up again to the earlier level of about 50 students, excluding those in the freshman engineering program, we must continue to recruit and retain high quality students in our program.

This year, with matching funds obtained from Ameren UE (Union Electric Company) and donors such as you, the department received \$30,000 from the Department of Energy (DOE) for undergraduate scholarships. We are happy that we were successful in securing an increase in the scholarship amount (last year's amount was \$20,000). I am confident that this increase will have a positive impact on our efforts to recruit and retain a higher number of qualified undergraduate students. Furthermore, I am optimistic that with the help provided by Ameren UE, we will be able to increase the DOE yearly support to the maximum of \$50,000 beginning next year.

I am also pleased to tell you that with your help, we have been able to further upgrade our computer and research laboratories. The improvements, with a cost of approxi-

mately \$25,000, include 10 Pentium (350 MHz) computer systems and a modern gas analyzer.

Our students continue to be successful in obtaining meaningful summer employment at national laboratories. Last summer, eight students worked at the Los Alamos, Argonne, and Oak Ridge National Laboratories. In addition, another student found challenging employment at the Callaway nuclear power plant. These summer opportunities were made available to our students with assistance provided by Dr. Gerald Schlapper of Los Alamos, Mr. Ron King of Argonne, and Mr. Tod Moser of Ameren UE. We appreciate the efforts of these well-wishers who also serve on the department's Development Board.

Finally, I wish to announce that Ms. Crystal Gottfried joined our department office about a year ago. She has been of great assistance to us in making our office run smoothly again. Please join me in welcoming her to our department. If you can, please call her at (573)341-4720 or contact her by e-mail at clgott@umr.edu to make her feel at home.

Your advice and support is gratefully acknowledged. If I can be of any assistance, please feel free to contact me at (573) 341-4747 or by e-mail at kumar@umr.edu.

With best wishes from the department,

Arvind S. Kumar
Department Chairman

DOE/Industry Matching Grants Program

It is our pleasure to announce that we have received a \$30,000 DOE/Industry matching grant for the 1999-2000 academic school year.

The grants from this program are intended to fund fellowships and scholarships for students, improve nuclear engineering and science curricula, and modernize experimental and instructional facilities at participating universities. The grants are focused on graduate and undergraduate students of nuclear engineering departments. DOE and participating companies provide matching funds, up to \$50,000 each. The endeavor is a 50/50 cost-shared agreement that supports 17 universities. Currently, 16 utilities and private companies provide funds equal to DOE grants. In FY 1999, up to \$2.0 million will be made available to these departments.

The grant for the department includes a \$30,000 award from DOE with a matching contribution in the amount of \$20,000 from AmerenUE. The funds will be used to recruit and retain academically superior students in nuclear engineering.

Students Participate in Summer Research Opportunities

Our students found the summer of 1999 to be a good one for research opportunities. Nine students investigated research projects that interested them and gained valuable experience through their collaboration with national laboratories and utilities. Veronica McAffrey (Senior), Beth Schlapper (Graduate), Joe Schmidberger (Senior), and Jeffrey Shelton (Graduate) participated in the student research program at the Los Alamos National Laboratory.

THERE'S MORE



Veronica worked in the NIS-7 (Nonproliferation and International Security-Safeguards Systems) division where she designed a program to display data from the statistical analysis of the measurement tools used in the accountability of materials for the plutonium processing facility. In addition, Veronica got to tour the Nevada Test Site, Yucca Mountain, and Frenchman Flats as part of her work experience at the lab. Beth worked with ESH-10 (Hazard Materials Response Group) on non-static field radiation detection in the environment. Joe researched commodities with Dual-Use characteristics as his project in the NIS-8 (Non-Proliferation and International Technology) group. Jeff worked in TSA-10 (Nuclear Systems Design and Analysis) and helped design the neutronics and thermal hydraulics of an accelerator to produce medical isotopes.

Heather Nydegger (Junior), Micheal Smith (Graduate) and Trevor Strickler (Senior) participated in the summer research program at the Argonne National Laboratory. Heather was in the Reactor Analysis group and researched a desorptive process for the removal of radon from 3-in-1 Oil. Micheal worked in the Reactor Analysis Division and used two codes called DRAGON and TWODANT/ONEDANT to perform reactor analysis on the experimental reactor Sheba II at Los Alamos. Trevor was at Argonne-West and researched thermal calculations for the BN-350 fast reactor unloading scheme and created a utility program to input file conversions from the VIM code to MCNP.

B.J. Marshall (Senior) worked at the Oak Ridge National Laboratory in the Radiation Safety Information Computational Center (RSICC) on four different projects while Julie Nowakowski (Graduate) was at the Callaway Nuclear Plant and worked in the Reactor Group on reactor analysis.

Alumni News

Donald J. Buth, '85,'87, Still working for Sargent and Lundy. Now living in sunny Arizona and working at Palo Verde. Lisa and the kids (Josette and Nathan) are loving the weather. It is good to wear shorts during the day and still be only a two-hour drive from playing in the snow.

Mark L. Kelly, '94,'95, Currently a licensing engineer working on restart of the D.C. Cook Nuclear Plant.

Scott P. Palmtag, '93, I was married in January 1997 and am now living in Idaho Falls with my wife, Ruxandra.

Katherine A. Phillips, '90, I am now staying at home with our new son, Blake, and finishing my Ph.D. in science education.

Dale A. Shelton, '85, Wife, Dayna, and kids, Ian (12) and Ariana (4) are doing great. Just started training for SRO license at Clinton Station.

Lenard A. Smith, '92, Currently working for Entergy Operations in Jackson, Miss., in Core Design Group.

Timothy C. Steadham, '93, I have accepted a position working for KSB Inc. in Richmond, Va. My new duties will include designing pumps for specific applications for both safety-related nuclear power stations (and fossil plants, too). KSB is the

world's third-largest pump manufacturer and the leading supplier of pumps to the nuclear industry. I am really excited about this career change. Not only will I be working with nuclear plants in the U.S., but all over the world!

Good to hear from all of you!

Tell Us What's New with You and Your Family!

We would love to include more news about our alumni in the *Gamma Gazette*. Please send us any changes of your home or business address as well as an update on your accomplishments. If you like, you can e-mail this information to Gary Mueller at gmueller@umr.edu.

News to Share: _____

The Nuclear Engineering department would like to thank and acknowledge the following alumni, friends and companies for their generous contributions between July 1, 1998 and May 31, 1999.

GIFTS LESS THAN \$100

Aceil, Smaeil M '84
 Alford, David B '98
 Alley, Michael E '96
 Baker, Kenneth L '77
 Barkalow, Thomas W '74
 Bartlett, Bruce Loren '80
 Beck, Robert Lee '93
 Blase, John J '74
 Blondin, Dennis G '74
 Carter, Mark D '80
 Clark, Robert Wayne '83
 Covey, Mark Kevin '82
 Cragg, Christopher D '85
 Cypret, Orville W '74
 Edwards, Kevin B '89
 Endsley, Charles M '75
 Freeman, David W '99
 Hart, Charles M '86
 Hiller, Justin William '94
 Hinton, William K '76
 Holland, Timothy E '91
 Justis, Paul Glenden '85
 Kaegi, Glen T '83
 Kalter, Charles J '72
 Kirsch, Raymond J '83
 Knudsen, Andrew T '86
 Kreisel, Kirk Andrew '95
 Kuspa, John P '72
 Lansberry, Mark R '95

Lawson, James A '89
 Lee, Darrell R '76
 Lewis, Jeffery L '76
 Lightfoot, Brian C '95
 Lojek, Jan R '69
 McDaniel, William J '96
 McLaughlin, Matthew K '92
 Monaghan, Rebecca M '98
 Palmtag, Scott P '93
 Rickard, Donald E '85
 Schade, Glenn W '69
 Schumer, Joseph Wade '92
 Shelton, Dale Alan '85
 Shelton, Jeffrey D '98
 Shrestha, Bijaya '95
 Singer, Richard J '75
 Smith, Lenard A '92
 Soto, Marcelo D '85
 Starke, Richard M '71
 Steadham, Timothy C '93
 Struve, James E '73
 Taber, Brian Keith '91
 Tibbitts, Dean L '73
 Thro, John R '78
 Venneri, Francesco '79
 Wahler, Vincent C '65
 Wagner, John C '92
 Walker, Stacy A '96
 Wolkenhauer, William C '62

GIFTS \$100 OR MORE

Aguilar, Omar Ivan '85
 Bobnar, William B '75
 Browning, Jimmy J '85
 Buth, Donald James '85
 Cadwallader, Lee C '81
 Croessmann, Charles '81
 Daiber, Bryan J '87
 Daily, Charles Ramon '83
 Easson, Sheldon A '75
 Eastburn, Michael R '67
 Eshelman, Curtis D '86
 Ferguson, Phillip Dean '88
 Ford, Michael John R '88
 Garner, Harold R '76
 Graham, Jacqueline S '80
 Kelly, Mark L '94
 Kinn, Gregory Scott '87
 Liao, Yonkai '92
 Lilleston, Richard N '79
 Moffett, Donald L '74
 Mueller, Gary E '76
 Phillips, Katherine Ann '90
 Pickard, Rodney Galen '95
 Reid, Billy W '77
 Ross, James D '94
 Schnell, Donald F '86
 Shores, Erik F '95
 Simpkins, Alice Ann '89
 Smith, Jeffery Joel '87

Suwal, Gajendra M '76
 Till, Henry A '68

The following corporations made gifts to the Nuclear Engineering Department during the same time period.

AmerenUE
 Arizona Public Service
 Foundation
 Carolina Power & Light
 Company
 Entergy Services Incorporated
 Lockheed Martin Corporation
 Pennsylvania Power & Light
 Company
 PricewaterhouseCoopers
 Foundation
 Southern Nuclear Operating
 Company
 Westinghouse Foundation

The gifts received by the department from individuals total \$7,890.

The matching gifts received by the department from corporations total \$1,300.

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**Phonathon
 October 3 - 6, 1999.**