GRADO **DEPARTMENT OF** INDUSTRIAL AND SYSTEMS ENGINEERING

THE ISE CONNECTION

YOUR WAY TO STAY IN THE KNOW AS ISE GROWS

IMPORTANT: To receive this letter in the future, if you have not done so previously, please contact Joyce Vest [vestjs@vt.edu] so that we may add you to the newsletter email list!

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Find Virginia Tech ISE on **Linked** in !

Expand your professional network past and current work by joining the Virginia Tech Industrial and Systems Engineering group on LinkedIn!

With 195 members and growing, this is an opportunity to keep up with colleagues and display your

experience.

To join, follow this link once you are signed in:

http://www.com/groups? mostPopular=&gid=1784853 OR go to:

http://www.linkedin.com, sign in to your account or create one, and search for the group Virginia Tech Industrial and Systems Engineering.

A New Community Service Initiative

The ISE Ambassadors have recently started working with St. Michael Lutheran Church in Blacksburg, contributing to a community ministry titled "Micah's Backpack." Micah's Backpack is a ministry program dedicated to promoting the nourishment of children, over the weekend, working with local schools to assist students who qualify for the free lunch program. Every Friday afternoon, backpacks filled with healthy food and snacks are given to local elementary school eligible students, assuring that they have food to eat over the weekend, and the students return the backpacks on Monday morning.

The ministry originated at St. Michael Lutheran Church in 2008, and continues to provide food to students from all five Blacksburg elementary schools, Blacksburg Middle School and the Blacksburg Head Start Preschool through the efforts of over 30 community partners. Micah's Backpack is one of many grassroots organizations all around the country working to fight child hunger. In November, several ISE Ambassadors met with Pastor John







Wertz to address the program's system for keeping records of the schools to which backpacks are distributed, as well as the food and money donations made to the ministry. The current system inadequately meets the needs of Micah's Backpack, making it difficult to keep accurate records of the ministry's success. The ISE Ambassadors have been working with St. Michael Lutheran Church to create a much more efficient system using Microsoft Excel with Visual Basic Integration (VBA). This new system is projected to be implemented no later than February of 2011. In addition, not only will it greatly assist the sector at St. Michael Lutheran Church, it is anticipated that the system will be added to the Micah's Backpack webpage to be shared with ministry partners around the nation. We are very proud of our Ambassadors for stepping up to use their talents and skills for the betterment of the local community and beyond.

You can find more information about Micah's Backpack on the web at: www.micahsbackpack.org

Notable Quotable

ISE was and will continue to be my family away from home. The professors, TA's, students, and faculty (couldn't forget Joyce, the mom to everyone in ISE!) are all awesome and are always there if you need them for anything. -Karen Tucker B.S. ISE 10, M.S. ISE '11

Ways to Stay Connected

If you and members of your class or your employer would like to sponsor or be a cosponsor of an event (i.e. ISEats, pizza for information sessions, Relay for Life fundraising events) please contact us and we will coordinate your efforts!

Senior Design Teams Go to France

This year four senior design groups had the opportunity to work collaboratively on international projects with the Ecole de Mines de Nantes in France. This program, organized by ISE professor Dr. Joel Nachlas, has been in place for many years. Every other year VT students travel to France to work intensively on the projects for a week and in alternating years the French students come to Blacksburg for



a week for the projects. The Virginia Tech teams were paired with French students and a French company for which they are working throughout the year. At the end of September, the VT teams traveled to Nantes to work with the French students and advisors on their projects. They were accompanied by Dr. Nachlas and fellow ISE professor



Dr. Michael Agnew. The teams completed their client visits, conducted their initial research and presented their solution proposals at the end of the week long stay. The teams received feedback from both the French and American advisors in addition to their clients and continue to work on their design solutions. The students remained in contact through January to complete their projects.









Relay for Life 2010-2011

The ISE Department started off the Relay for Life fundraising early this year! They had their first fundraising activity November 5, 2010, which was a bake sale in front of Moe's South-

western Grill right in downtown Blacksburg! It was very cold, but the students took shifts and had a great attitude, which paid off because they raised 300 dollars. Their next event was a share night at Log Cabin BBQ in Blacksburg, VA, located by the Math Emporium.

Overall, Relay for Life at Virginia Tech had a great first semester raising over \$70,000!

The ISE department boasts two teams so far, with the goal of organizing more. The team

names are **Torgy's ISE** in dedication to Dr. Paul Torgersen who is a cancer survivor. Between the fundraisers and personal donations the team as a whole has raised \$2,280. They are





looking forward to setting new records this Spring semester! There are several fundraisers, bake sales, and other events in the planning for this semester including a big pancake break-

fast coordinated by the Ambassadors, Institute of Industrial Engineers, and Alpha Pi Mu.

This year the Relay for Life at Virginia Tech will be held on April 22nd. If you would like more information about VT Relay for Life please use this link: http://tinyurl.com/VTRelayForLife

If would like to donate to our cause please visit:

http://tinyurl.com/ VTISEDonate

Come join our team!

THE ISE CONNECTION



Work Measurements Students "Measure Up" The VT Football Team

When most people hear of Virginia Tech, two the athletic department and talking to Dr. John things come to mind: Engineering and football. When the Chegin triplets, Matt, Mike and Chris, were contemplating lab ideas for their Work Measurement and Methods Engineering lab, the brothers came up with a unique and creative lab that combined their passion for football and their engineering knowledge. They wanted to analyze a Virginia Tech football team practice.

After the rest of the lab section voted to perform the Chegins' lab as a class, they faced one obstacle: getting permission from Coach Beamer and the football team. After emailing

Ballein, the Associate Director of Athletics for Football Operations, the Chegins and the rest of their lab section got to live one of every Hokie's dreams: being on the field for one of legendary head coach Frank Beamer's practices. The project team broke down into groups to study each of the football position groups at the practice. They performed two studies while on the field. The first, a work sampling study, was done to determine how long or how much of the practice was spent on predetermined tasks for each position at a specific time interval. The second, a time study, was

done to analyze productive time and nonproductive time and compare it for the duration of the period.

The lab results showed that a Virginia Tech football practice is highly efficient. The wide receiver group was found to be the most productive position group. With a legend like head coach Frank Beamer, Virginia Tech's continued success in football can now be directly correlated to the efficiency of its practices due to the efforts of these ambitious ISE students.



Coach Beamer and the ISE lab team

"I say it all the time, 'We're all in this together.' When I found out that this was a legitimate assignment, that they wanted to study the effectiveness and productivity of our practice, I was happy to assist. To be honest, I'm anxious to hear their results. I know this university produces top quality engineers and if they come up with ways that we can better manage our time, or ways that make us more productive, I'd welcome that feedback."

-Coach Beamer



Coach Beamer and the Chegin brothers

Find the Beamerball.com blog about this on October 21, 2010 at:

http://www.beamerball.com/ free/beamerblog.asp

To watch the interview done by WDBJ7 Roanoke's CBS-affiliated news channel, visit: http://tinyurl.com/dbj7Interview

The Lab team in action!







Awards, Highlights, and Announcements

Andrea Shome, ISE Student, Honored as College of Engineering Outstanding Senior



Ms. Andrea Shome has just been awarded the College of Engineering Outstanding Senior for 2011. The prestigious award is given by the COE from among all the seniors who are nominated from their

respective departments as truly outstanding individuals. The criteria for selection was based on four aspects: academic achievements, extracurricular participation in university activities, leadership positions held at VT, and contributions of service to the university and/or community. Andrea excelled in all aspects as was evidenced through her extensive resume and the wonderful letters of recommendation from her department. This is quite an honor for her and the Department of ISE but even more so as she is now eligible for the University Outstanding Senior

Andrea has maintained a rigid schedule of academics, double majoring in ISE and French. Her GPA in both are stellar and easily shows her commitment to her goals and high standard of academic achievement that she has set for herself. She is a member of the University Honors Program and has participated in three undergraduate research experiences, two being at VT and one at UMD.

Her many university activities consisted of multiple professional internships, University Honors Mentor, Student Representative for Global Living Community and many more. Andrea's leadership positions have truly showcased her special skills and abilities through resident advisor for themed housing; chair of the Recruiting Committee for the ISE Ambassadors (two year member of

University Honors. But what really makes Andrea Shome stand out is her contributions of service to the university and to the community. She is very involved in Relay for Life, tutoring, many club activities, and community service projects. Andrea gives of herself, her time and her talents for many worthwhile causes and activities and it is easy to understand why the ISE Department was very proud to put her forward as a candidate for this award. Andrea's excellent work and academic ethics and standards are only second to her humble and giving spirit which embodies the very principles of VT: Ut Prosim, That I

May Serve. Congratulations,

Andrea.!

program) and head mentor for

Current Students & Professors

We are currently highlighting students and professors in the Department as part of an effort to recognize those who excel in their lives in and out of ISE.

Nominations are made through a survey available to ISE students and faculty. The highlights are posted on the bulletin board outside of Joyce Vest's office and on the ISE website for everyone to see.

We would like to share these with all of our Alumni, and hope you enjoy reading about these special individuals who have been recognized by their peers!

ISE Professor Highlight

Dr. Paul E. Torgersen





Paul Torgersen received the ISE Distinguished Alumni Award in Academia from Lehigh University, along with Lee lacocca who won the Distinguished Alumni Award for Industry on April 29, 2010. Since Paul Torgersen's father was an electrical engineer, he started out studying electrical engineering at Lehigh University, which did not "fit," so Torgersen switched his major to Industrial and Systems Engineering and graduated in 1953 with a BS in ISE from Lehigh. He continued his education and received his MS and PhD degrees in Industrial Engineering from Ohio State University. Dr. Torgersen began his teaching career at Oklahoma State University and then came to Virginia Tech as head of the Industrial Engineering Department. After a few years, Dr. Torgersen became Dean of Engineering at Virginia Tech. Dr. Torgersen's career continued as he became acting president and then president of Virginia Tech from 1993 to 2000. After retirement in 2000, Paul Torgersen returned to his beloved department of Industrial and Systems Engineering and continues to teach Theory of Organization each semester.

THE ISE CONNECTION



ISE Student Highlight Ashley Faucher

Ashley started participating in pageants about two years ago because she wanted to ride on top of a fire truck in a parade, but then she learned about the program and the potential she had to leave a legacy. Miss America's platform is Children's Miracle Network, and Ashley is aiming to become a "Miracle Maker" this year by becoming



one of the top fundraisers. So far she has collected \$640 for the CMN Hospital in Roanoke, Virginia and \$200 for the Children's Miracle Network/Miss America Organization Scholarship Fund. Since Ashley started collecting for CMN/Miss America scholarship fund she has collected \$1,300 total. Ashley's contributions can be tracked at http://ow.ly/3IU1X.

Ashley's personal platform is Feeding America; she teaches people how close to home hunger is for America, and is aiming to collect the equivalent of 20,000 pounds this year! She always updates what she has been up to on her website www.Ashleyfeedsalot.com.

Her favorite part of competition is the interview portion, and she won the preliminary award for that on the same night she won Miss Smith Mountain Lake 2011. All together she has won about \$2,000 in scholarship money. Ashley will compete for Miss Virginia 2011 on June 25th which will be broadcasted globally on the internet and statewide in Virginia. She will keep everyone updated on her website!

ISE Professor Highlight Professor Joel Nachlas

C. J. Babb, one of the team captains of the Virginia Tech Lacrosse Team, says that Coach Nachlas is intelligent with gameplay and knows what to do to reach team goals of going to the National Tournament every year. He knows how to manage and direct a team and he is a keystone feature of the program. Without Coach Nachlas, the team wouldn't have organized practices, a bus to travel on, or a place to stay when the team travels, much less teams to play. Basically, he does all the logistics of the team. He is a bright individual and knows what he wants to do to reach each specific goal.







Our Alumni

In addition to
highlighting current ISE
students and
professors, we would
also like to include all
of our Alumni's news
and updates!
We would like to
expand this section and
make it one which you
can expect to see in all
future Newsletters.
Please see the last page
of the Newsletter,
dedicated specifically to

Alumni Wedding Announcement



Mrs. Kelly White Freno and Mr. John Freno



A warm congratulations to the new Mr. and Mrs. John Freno! Their wedding was held October 16, 2010. Attending and participating in the wedding were fellow ISE alums. From left to right in the above picture: Andrew Elmore (ISE '08) Kelly White Freno (HNFE '08), John Freno (ISE '08), Travis Winstead (ISE '08), and Daniel Gibbons (ISE '08).

Meet the Grado Department of Industrial and Systems Engineering

Advisory Board

Name and Title

Position

Mr. Steven E. Anderson

President & COO, Integrated Textile Solutions,

Mr. Richard (Dick) M. Arnold

Consultant, Gen. Brd. of Global Ministries of the

Mr. Thomas (Tom) E. **Bailey**

President, AMI Safety, Inc.

Balzer

Mr. Thomas (Tommy) R. Executive Vice President, Balzer & Associates,

Edward R. Clark Professor of Computer Aided Dr. William E. Biles , P.E. Engineering, Department of Industrial Engineering, University of Louisville

Ms. Lydia A. Birk

Project Manager, Bechtel Jacobs Company, LLC

Ms. Teresa J. Carter

Engineering Productivity Tools Leader, GE Energy

Mr. John Grado

Retired Chairman and Chief Executive Officer, Technographics Inc.

Mr. John McKnight

Vice President & General Manager, Kollmorgen Motors & Drives

Mr. Matthew J. Mulherin

Sector Vice President & General Manager, Northrop Grumman Corporation

Mr. Charles (Jack) J. Norris, Jr.

nell II

Chief Operating Officer, NuVox Communications

Mr. Robert (Rob) F. Pan- Strategic Space Planning Manager, Altria Client Services

Mr. Styron N. Powers

Director. Health, Safety, Security and Environmental at BP Refining and Marketing

Mr. Christopher (Chris) J. Rockwell

President, Lextant

Mr. Jaime A. Smith

Advisory Board Chair, Vice President Sales, Sun **Edison**

Mr. Kirk E. Spitzer

Retired President & CEO, Alfa Laval, Inc.

Ms. Mona B. Stewart

Location Lead-Boston/Pittsburgh/Reston/DC, Accenture Technology Solutions

Mr. Gary L. Whicker

Sr. Vice President of Engineering Services, J. B. Hunt Transport, Inc.

Region Engineering Manager for UPS Corporate

Mr. Don A. Wittke **Industrial Engineering**

Ms. Alyson J. Zehner

Shared Services Director of Application Development, Revenue Analysis and Education HCA Healthcare Corporation

What is their purpose?

The purpose of the Grado Department of Industrial and Systems Engineering Department Advisory Board is to provide the department with guidance in regard to undergraduate and graduate curricula, the research needs of industry, and overall direction. At their meetings members of the board regularly interact with both the students and faculty through formal briefings and informal social gatherings. The Advisory Board has been instrumental in assisting the department in obtaining named professorships, endowed undergraduate scholarships, graduate fellowships, and critically needed equipment. They have also had a major impact on the department's development and curricula. Members of the Advisory Board are distributed between alumni and non-alumni, and Virginia based industry and other industry from around the country. Some of our board members represent major recruiters of Grado ISE students. New board members are selected by the current board for five year terms. The board elects a chairman every two years. Four members of the Grado ISE faculty serve as ad hoc members.

The ISE Advisory Board Gets Involved with Students!

On Thursday, October 7, the ISE Advisory Board gathered in Blacksburg for their Fall meeting. They graciously reserved that night to spend with ISE students for a question and answer session. The night started with a pizza dinner meet-and-greet with the students followed by the sit-down session. The students attending had been able to provide up to two questions each in a survey sent out before the event, and asked questions ranging from work/life balance to how to apply what is learned in school to the real world. The Advisory Board not only answered student questions but spoke on topics they thought were important to share. The board members offered great advice on how to succeed with life after college and gave some great quotes such as, "Money will only make your miseries comfortable." The event was a memorable night for both the advisory board and students.

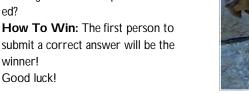


Brain Strain

Welcome to the ISE Brain Strain! In every Newsletter, there will be a competition for all readers. Submit answers to our chief editor, Alexia Ioannou at [lexi007@vt.edu] and the winner's response will be featured in the next edition!

Challenge: Can you tell us where on the Virginia Tech Campus this is locat-

How To Win: The first person to submit a correct answer will be the winner!







Creating a Culture of Giving

At the Grado Department of **Industrial and Systems** Engineering, our vision is to be leaders in research, education, professional outreach and leaders in our communities and society. Funds from the Commonwealth of Virginia to Virginia Tech do not cover our annual budget or needs. Private giving is critical if we are to maintain let alone improve, the high quality of our processes. Giving to ISE at Virginia Tech can provide student scholarships, maximize students' learning, help us attract and retain the world's best faculty, assist with day-to-day operations, and help maintain state-ofthe-art research and teaching facilities. If we are to be competitive with other top 10 departments, giving is vital. To aid us in soliciting funds for this endowment, we recently commissioned a "Hokie Bird" sculpture, which has been



Our Most Vital Need - The Hokie Bird Project.

installed on the wall in Durham Hall right outside the departmental office suite. The names of our Benefactors will appear prominently on the large brass plagues above the Hokie bird and the names of our Patrons will appear on the brass plagues on either side of the sculpture. Our Sponsors names will appear on the bronze plaques surrounding the Hokie bird. Listed below are the names of our generous contributors thus far. To learn more about this special project and how you can be a part of it, visit: http://www.ise.vt.edu/ support/vitalgiving.php

A Special Thanks And Recognition To Our Hokie Bird Excellence Fund Contributors

Grado, John & Corrie

Adams, Michael & Brenda Arnold, Dick & Sally Arnold, Joseph Askew, Tom Bailey, Fred Birk, Lydia Blanchard, Ben & Dot Canada, John & Wanda Casali, John Chachra, Vinod & Ranjana Cullinane, Thomas & Katherine Davis, Darrell & Michelle Deisenroth, Mike & Marilia Dick, Dan & Lynn Doughty, Gary & Eleanor Easterly, Mary Chris Fitzgerald, William & Vicki

Forbes, Charles & Patricia

Guynn, Jack & Becky Harmon, Ken ** Hepler, Clint & Nita Jones, John & Lillian Klein, Dave & Christine Laman, Denise Leclaire, Kevin & Jessica Leslie, Charles Mayo, Trevor Memmer, Peter Miller, Matthew & Holly Monroe, Ellis Montague, John & Jean Montgomery, Doug & Cheryl Norris, Jack O'Brien, Charley & Betsy Pannell, Rob

Polk, John & Marty Powers, Styron ** Ring, Bill & Sara Rusak, Jennifer & Mark Sage, Don & Mary Etta Sauer, Nancy & Ron Smith, Jaime & Erika Smith, Michael & Elizabeth Snelling, Steve Stewart, Mona & Kevin Szabos, Brian & Kurstein Taylor, Bob & Connie Taylor, Don & Jo Ellen Torgersen, Paul & Dot Van Aken, Eileen & Steve van Luyn, Dutch & Trudy Worley, Hal & Thornie

^{**} Indicates a new contributor

WE WOULD LOVE TO HEAR FROM YOU!

Please send in any updates and announcements such as (but not limited to) marriage, births, career accomplishments, retirement, community projects, and awards and recognitions by email to Joyce Vest at vestjs@vt.edu or by mail to the Department, address listed below.

Please be sure to include all relevant information including your name, address, phone number, and email address.

Mailing and email address updates should also be sent in to Joyce Vest at vestjs@vt.edu.

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Virginia Tech



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