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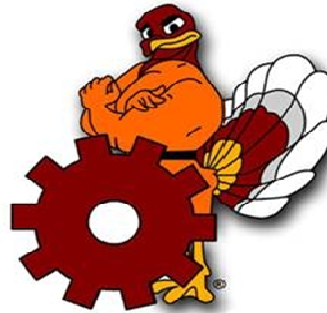
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## Hot Off The Press: Our Fourth Edition

Dear ISE family  
members and fans,

Another semester is coming to a close and that means another semester of exciting news, events, awards, and fascinating individuals shaping the VT Grado ISE department. Enclosed you will read about students serving the community, athletic achievements, and faculty dedication to the ISE department. You will also read about several events which occurred throughout the semester including



the department's first ever International Night. Also enclosed is a list of senior design clients and the

various types of projects students are working on. Finally don't forget to complete the word search (if you can). It is our goal to continue to provide you with all that is ISE, and it is our hope that you provide feedback and creative ideas on how to improve this Newsletter. Please, do not hesitate to contact Joyce Vest [vestjs@vt.edu] with your comments. We hope you enjoy the issue and look forward to hearing from you. Stay tuned for our next edition coming in April.

Sincerely,  
Your ISE Editors

## Featured Article

### An Extended Birthday Wish to Dr. Paul E. Torgersen!

*Matt Chegin and Danielle DeRosa*

On October 13<sup>th</sup>, the entire Department of Industrial and Systems Engineering took part in a birthday celebration for a very special member of our ISE family, Dr. Torgersen. The ISE Ambassadors put together an album of cards and emails with fond memories of Dr. Torgersen, along with wishes from both past and present students, faculty, and staff. The birthday celebration consisted of a ceremony held in the afternoon, where department head, Dr. Don Taylor, provided gracious remarks pertaining to Dr. Torgersen's memorable 80<sup>th</sup> birthday.

The birthday wishes for Dr. Torgersen were not just limited to the ISE department. The entire football coaching staff also

#### HAPPY 80th BIRTHDAY!



Coach Beamer and the entire football staff celebrate Dr. Torgersen's 80th birthday.



took part in this celebration.

Dr. Torgersen's role at Virginia Tech and within the ISE department has been nothing more than extraordinary. His continued teaching of the Theory of Organization course has impacted the lives of past and present students. From sharing his personal experiences with students, he offers tremendous advice and life lessons ISE students will take with them as they all strive to become the future leaders of tomorrow. Dr. Torgersen has served as a fabulous colleague, mentor, and friend to all of us who have been privileged to know him. Thank you for all that you do for the ISE department, Dr. Torgersen!

**IMPORTANT:** To receive this letter in the future, please contact Joyce Vest at [vestjs@vt.edu] so that we may add you to the newsletter listserv.

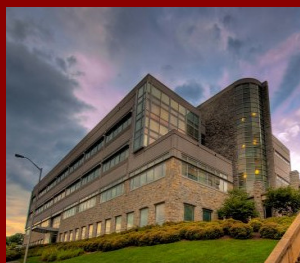
**"The ISE professors devotion to student learning promotes success and a great academic environment"**



**Chelsea Jensen**  
Senior ISE

### Ways to Stay Connected

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



**THE ISE  
CONNECTION**

## Students Helping Honduras

Ridwan Alam is an ISE Senior and President of Students Helping Honduras (SHH). Freshman year, he decided to get involved with SHH after seeing how much Virginia Tech students can create change in the towns in Honduras.



The mission of SHH is to empower the vulnerable children of Honduras since most living there are on their own by age 13. There is a high rate of these children joining gangs or going to jail. Building schools and homes for them are

important to help them prosper and provide positive influences. With Ridwan's lead, Virginia Tech's chapter raised over \$7,000 for the cause last year. They also built a rain catching system and more sanitary bathrooms. The chapter raises about \$200 a week and has a variety of fundraising activities such as a FIFA tournament, bake sales, and concessions.

Ridwan has been to Honduras twice. The first time he went, he helped build a school called Unidos Venceremos. The school that he built also included a computer lab with English language-learning software. On his second trip, Ridwan was happy to witness the finish of a school that he helped build. He also worked on

*Alex Lyddane*

the project called Villa Soleada, where he helped build 45 houses and roofs. Electricity and plumbing systems were built with \$17,000 fund-raised by SHH at Virginia Tech.

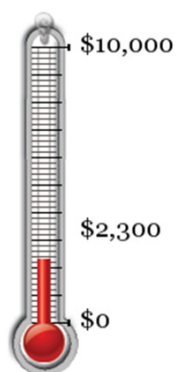
While visiting Honduras he was able



to really bond with the people of the village and meet great friends. His favorite thing was being able to play soccer with the locals after working for the day. Soccer, called futbol, is a passion and way of life in Honduras. Ridwan will be traveling back to Honduras this winter.

## Help Us Reach Our Goal!

The 2012 Relay for Life Fundraising season is well under way for the Torgy's ISE teams. For those of you that are not familiar with Relay for Life, it is a non-profit organization that supports the American Cancer Society by raising money for cancer research. The ISE department's team name was chosen to honor cancer survivor Dr. Paul Torgersen, former ISE Department Head and President of Virginia Tech. After a successful 2011 Relay, we have raised the bar even



higher with a new goal this year to raise \$10,000 for the American Cancer Society. We are off to a good start with over \$2,300 raised through fundraising events, but we still

have a long way to go and could use all the help we can get!

So far this year we have been able to take advantage of another successful Hokie football season by asking for donations from tailgaters and giving out Gatorade and chocolate. With the help of Professor and Associate ISE Department Head Dr. Van Aken, we were able to park cars in her driveway for additional donations. Homecoming weekend was a complete success with the teams conducting a late-night bake sale on Main Street, as well as our routine tailgating fundraiser for the Boston College game.

Now that the home football games are over, we have started new fundraisers such as our monthly dessert raffle. Tickets are sold each month in the main office in Durham if you are inter-

*Colton Wenger*

ested in supporting Relay while having a shot at a sweet treat!

We have many more fundraisers planned for the rest of the fall and spring semesters with a possible Relay Casino Royale night in the works.

To reach our goal we need your help. If you would like to share other possible fundraising ideas, please notify Joyce Vest at [vestjs@vt.edu](mailto:vestjs@vt.edu). If you are interested in joining a team, you can go to [www.vtrelay.org](http://www.vtrelay.org) and sign up for one of the three Torgy's ISE teams. Feel free to invite friends to join. The more people that join, the closer we get to reaching our goal. As always, thank you for supporting Relay for Life and the fight against cancer!



# ISE Student Spotlight: Matthias Treff

*Matt Chegin*

Matthias Treff started throwing Javelin when he was 16 years old and since that time has become one of the nation's top throwers. Growing up in Burgthann, Germany, Matthias started competing full time in the sport when he was a high school student-athlete. He later went on to compete in the World Championship under-18 games. His talents quickly opened the eyes of many recruiters, particularly nationally ranked Track and Field teams in the United States.

Virginia Tech is known to recruit a lot of international student-athletes, having notably one of the best javelin throwing coaches in the country. It was an easy decision for Matthias when it came time to select where to take his throwing talents.

When asked about his adjustment to the US, he said the toughest part was adapting to the different unit conversions: pounds compared to kilograms, feet compared to meters, and Fahrenheit compared to Celsius. Not knowing how cold it is outside in Blacksburg, VA, not knowing how much weight he was lifting in the weight room, or not knowing how far he threw the javelin presented a huge challenge upon Matthias' arrival to the Hokies, but he has adapted well.

Matthias' outstanding list of ac-

complishments on the Virginia Tech Track and Field Team is accompanied by a degree in Industrial and Systems Engineering. Along with his impressive javelin career, he is also a representative of the Student Athlete Advisory Committee (SAAC) for the Track team. During the summer of 2011, he was in China throwing for the German National Team and competed in the World University games.

When asked why he decided to study ISE, he said he was interested in the ergonomics side of the curriculum and he really liked how the major offered such a broad education from management, to operations research. The All American javelin thrower intends to graduate in May of 2012. Upon graduation, Matthias hopes to work towards a MS degree in Industrial Engineering or Ergonomics, while still competing for the VT Track and Field team. With one more year of eligibility, Matthias hopes to take a final shot at becoming a National Champion and help lead his Hokie squad to another NCAA crown. Good luck Matthias!

For more information about Matthias and the Virginia Tech Track and Field Team please visit:

[www.hokiesports.com](http://www.hokiesports.com)



## MATTHIAS TREFF

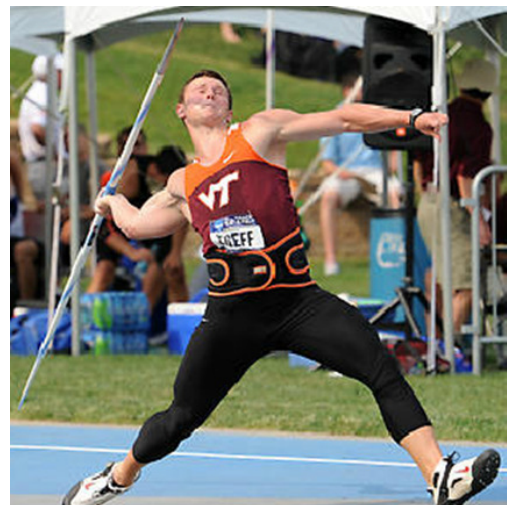


**2011 First Team ALL AMERICAN**

**All-Time ACC record holder in the Men's Javelin**

**2 career ACC titles in the Javelin**

**2 time All-ACC Academic Team**



Matthias Treff helped guide his team to its highest NCAA finish in school history, placing 5<sup>th</sup>, as well as leading his team to a 1<sup>st</sup> place finish in the ACC.



## International Night Done Right

*Alice Dula*



Kevin Grove and Juan Folgar embracing El Salvadorian culture

The ISE Ambassadors hosted the first annual International ISE Night on October 20<sup>th</sup>, where international students and students who studied abroad were given the opportunity to tell the ISE faculty and fellow students about their experiences. There were representatives from 15 different countries spanning from Asia, Africa, and Europe to North and South America, who gave presentations containing pictures and facts about

their countries. The students also brought custom dishes which accompanied the dinner provided by the department. There were several distinguished faculty members in attendance including Dr. Richard Benson, the Dean of Engineering and Dr. Don Taylor, the ISE Department Head. The ISE Ambassadors were thrilled with the enthusiasm expressed by the students, staff, and participants regarding this event and have received

lots of positive feedback. The ISE department is very excited about this event and plans to make next year's even better.



A special thanks goes out to all of our presenters!

## Advisory Board Q&A Session

*Sutton DeCrane and Matt Chegin*



Our Advisory Board at the 2011 Senior Symposium, held at the Inn at Virginia Tech.

On September 29<sup>th</sup>, the Department held its annual Advisory Board Question and Answer Forum that was a tremendous success. There was a positive turnout

of more than fifty undergraduates, numerous faculty members, and the majority of the Advisory Board members. The meeting consisted of questions submitted by students to Advisory Board members which provided out-

standing responses. Questions included advice on resumes and interviews, minors to pursue, the value of an ISE degree today, and the transition undergraduates experience when moving from a classroom setting to the real world. The Advisory Board provided tremendous insight on career paths and future endeavors students will face upon graduation from Virginia Tech. As the question and answer session concluded, students were given a great networking opportunity to talk with these successful individuals who represent major recruiters of Virginia Tech

ISE students.

The Grado Department of Industrial and Systems Engineering Advisory Board consists of eighteen distinguished members, many of whom are alumni, who help guide the direction of the department. These members spend time suggesting curriculum improvements, helping with research needs, and providing advice for students. The Advisory Board members are very much appreciated throughout the ISE Department and we are so glad to have them all on our team!

## Congratulations Fall 2011 Alpha Pi Mu Initiates!

Ali Alkhalaf

Anson Felder

Kyle Fritz

Edward Jenkins

Sayed Almohri

Juan Folgar

Andrew Heier

Peter Lewis

Rawia Aly

Kathleen Antonacci

Kristen Bieszczad

Dominic Breuer

Choah Choi

Margaret Dozier



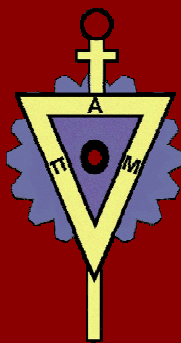
Christine Newman

Regan Newman

John Robertson

Ivan Volonsevich

Laura-Beth Woodford



## Virginia Tech Takes 1<sup>st</sup> Place

The Virginia Tech Facilities Planning and Material Handling team of Dan Mashack, Rachel Belyavsky, Tomas Lima, and Matthew Strauss took 1<sup>st</sup> place in the 2010-2011 CICMHE Material Handling Student Design Competition. Their design was first selected from a pool of excellent projects completed by the Spring 2011 Facilities Planning and Material Handling class by instructor Jeremy Rickli, and then submitted to the national CICMHE competition. The competition required students

to use real-world facility data supplied by the St. Onge Company to design an entire distribution center, including facility layout, all facility operations, and personnel requirements in only five weeks. The first place finish awarded the team \$2,000 and \$500 for the Virginia Tech Industrial and Systems Engineering Department. In addition, the team's efforts will be recognized at the CICMHE booth at the 2012 MODEX expo for manufacturing, distribution, and supply

chain industries in Atlanta, GA.

The 2010-2011 CICMHE Material Handling Student Design Competition is a national competition for undergraduate students at universities teaching the principles of facilities planning and material handling.



**Facilities Planning and Material Handling team of Tomas Lima, Dan Mashack, Rachel Belyavsky, and Matthew Strauss**

## Instructor Spotlight: Fadel Megahed

Originally from Cairo, Egypt, Fadel has earned his BS in Mechanical Engineering from The American University in Cairo and his MS in Industrial and Systems Engineering at Virginia Tech where he continues to pursue a PhD.

Currently he is the instructor of the senior-level course Production Planning and Inventory Control. As an instructor, Fadel shows tremendous care for his students, making sure they

*Eric Cohen*

**Fadel Megahed is a great instructor who really wants to see his students succeed!**

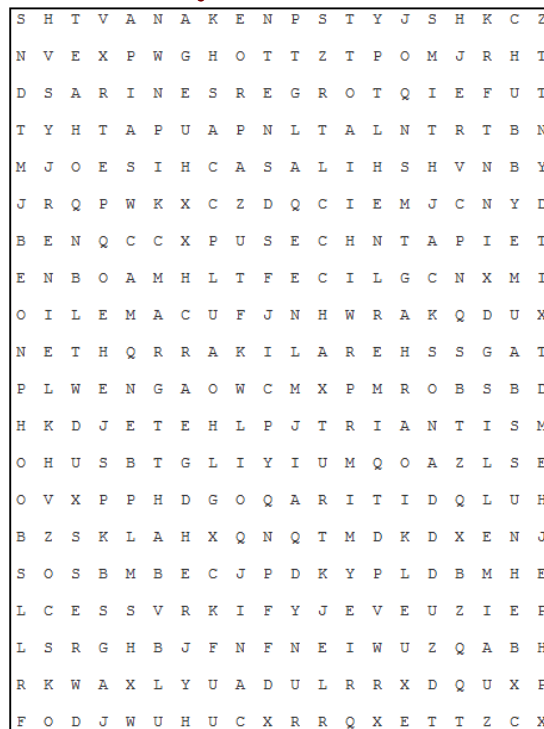


perform well and most importantly learn the appropriate material for future success. In class, Fadel promotes student interaction

through activities such as case studies to drive home the topics and connect them to the real world. He provides extended office hours and one on one appointments to help students. He even encourages meetings with all students to individually review tests and make sure they understand the material missed on exams. He is extremely understanding when it comes to interview and job searching conflicts and is always available to help make up the work students may have missed. In addition, he provides support to senior design students whether it be by providing feedback on presentations or technical support during data collection or analysis. Fadel meets with one senior design team every Friday to aid in the progress of their project. Along with academics and the care for his students, Fadel loves sports, in particular Virginia Tech Football.

## Word Search: ISE Faculty

Agnew	Sarin
Bish	Sherali
Camelio	Shewchuk
Casali	SmithJackson
Ellis	Sturges
Harmon	Taaffe
Jin	Taylor
Kleiner	Torgersen
Koelling	Triantis
Lockhart	VanAken
Nachlas	Vest
Nussbaum	Wernz
Paupathy	Winchester
Rahmandad	



## Senior Design Clients



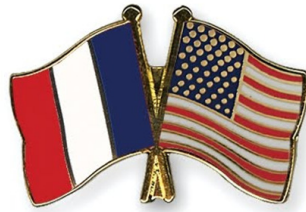
## Collaborating Overseas

Laura Beth Woodford

For several years now, ISE Senior Design teams have had the option of working jointly on their projects with Industrial Engineering students from Ecole des Mines de Nantes (EMN) in France. This year, seven out of thirty-one VT Senior Design teams have taken advantage of this opportunity, and have since discovered how demanding, yet rewarding an experience it can be.

For a week in September all of the EMN students, who are fluent in English, made a trip to America to visit Virginia Tech, providing an excellent inter-cultural experience for everyone involved. The VT students provided the EMN students with a taste of what our community is all about, including exposing them to the VT classroom environment, campus and downtown dining, as well as a refreshing hiking trip at the Cascades. On the other hand, VT students were able to learn some of the French language and were even treated to a fine dinner of homemade French foods made by the EMN students.

Also during that week, all of the students made visits to the companies sponsoring their projects and established problem definitions and objectives as a foundation for the remainder of the design project. A presentation of each team's progress at the end of the week allowed for feedback from both the EMN and VT advisors. Since then, groups have progressed towards their project goals through e-mail and video chat. Although this form of communication has proven challenging in some situations, the experience has certainly been incomparable and worthwhile!



## A Look at Senior Design...

Eric Cohen

This year's senior design projects range in variety, much like years in the past. Students are currently working with healthcare industry clients including LewisGale Medical Center, Carilion Clinic, and Smart Perfusion LLC. These health care projects include improving patient throughput of an endoscopy lab, improving process and supply layout of an OR facility, as well as designing a bottle and can recycling program for a hospital. In addition to hospital process improvements, some teams are implementing design improvements. This includes engineering and perfecting a cardiac transplant system for Smart Perfusion LLC or creating a chair design which will immobilize a patient in order to obtain an accurate scan of the ear canal for ear-plugs.

In addition to providing healthcare benefits, senior design teams are also working with manufacturing facilities and distribution centers across the New River Valley. These projects include optimizing the warehouse staffing levels of Solutia Perfor-

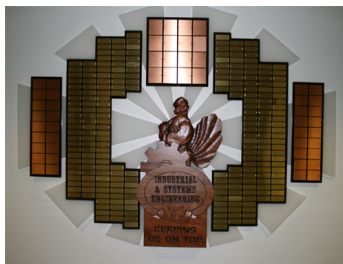
mance Films, improving the machine workshop flow of Moog Components Group, improving the facility layout of Volvo Logistics plant, as well as many more. Teams are also using skills learned in class to provide a better strategy in disaster relief efforts for the United Way.

Even with all of the project choices, one team went above and beyond creating their own project for senior design. This team was able to create a project that incorporated the Virginia Tech football team, something for which the team members all have an extreme passion. The team decided to aid the Athletics Department and university in its marketing strategy for selling tickets to bowl games. The team will create forecast models to determine the bowl game to market based on previous years' records and other historical data. From there, the team will forecast the number of tickets expected to be sold and the revenue obtained. This team, along with all the others, reinforce the vast impact ISE students have on the world around them.

# 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-of-the-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 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 plaques above the Hokie Bird and the names of our Patrons will appear on the brass plaques on either side of the sculpture. Our Sponsors will appear on the bronze plaques surrounding the Hokie Bird.

For more information on donating to the Hokie Bird fund, visit <http://www.ise.vt.edu/support/vitalgiving.php>

## **Our Most Vital Need - The Hokie Bird Project.**

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

**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**

**Grado, John & Corrie**

**Gynn, Jack & Becky**

**Hepler, Clint & Nita**

**Jones, John & Lillian**

**Klein, Dave & Christine**

**Laman, Denise**

**Leclair, Kevin & Jessica Oi**

**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**

**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**



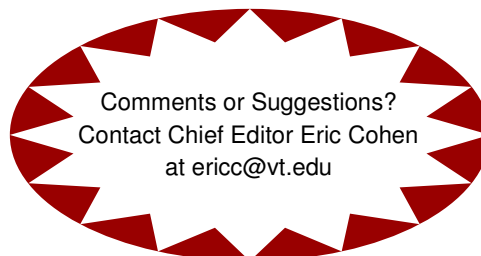
## **WE WOULD LOVE TO HEAR FROM YOU!**

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

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

Mailing and email address updates should also be sent to Joyce Vest at [vestjs@vt.edu](mailto:vestjs@vt.edu).

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