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STATE UNIVERSITY

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FACEBOOK!

This Fall the IME Department launched a Facebook page. It has been a great tool to connect Alumni and current students.

Visit the NDSU IME webpage to find the Facebook Link.

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# IME Fall Newsletter

FALL 2014

## Greetings from the IME Department Chair

Greetings IME Alumni and Friends,

We are finishing off another productive year at NDSU Industrial and Manufacturing Engineering Department. Interest in our programs continues to be strong. In 2014, our programs enrolled 183 undergraduate and 20 graduate students. In the past five years, we have graduated, on average, 43 IME majors each year. We are a small but highly productive department. This past year, our faculty published 49 refereed articles; received external funding totaling over \$500,000; filed six patent discoveries; and graduated 47 undergraduates (35 Industrial and 12 Manufacturing Engineers), and six doctoral students.

We had an especially busy Fall Semester this year. Some of the highlights include:

- Dr. Val Marinov, who was recently promoted to full professor, was the keynote speaker at Bulgaria's University of Ruse's Annual International Conference. This is quite an honor and recognition of Dr. Marinov's accomplishments.



Dr. Val Marinov and President Beloev, of Bulgaria's University of Ruse.

- Dr. Bashir Khoda was a featured speaker for the NDSU Library's 3D Printing Workshop. Dr. Khoda was awarded a \$75,000 grant, this semester, to expand the department's Additive Manufacturing (3D Printing) Laboratory.

- During NDSU Homecoming Week the department hosted an alumni event (picture to left). It was great for our faculty and alumni to reconnect. We plan to host a similar event next fall. Check our new department Facebook page for information on alumni events.



- In early fall, working with Boston Scientific, we offered a day long Lean Workshop which was attended by over 40 IME students.

- Jake Larson (Senior, Manufacturing Engineering) took first place award in the 2014 NDSU EXPLORE exposition of undergraduate research projects.

- Katie Scholl (Senior, Industrial Engineering & Management) was selected to be a speaker for the 2014 Winter Commencement.

- In August we were able to hire Loralee Carpenter to fill the open administrative assistant office position. Ms. Carpenter has worked in higher education for a number of years. She is from Walhalla, ND and has a degree in Social Studies Secondary Education and a minor in Psychology.

Currently, we have an open faculty position for which we are accepting applications. I am hopeful that the position will be soon filled as well.

We always enjoy hearing from our alums and hope you will drop a line or stop by for a visit when you in the F-M area. On behalf of the students, staff, and faculty thank you for your generous support of our department through the years.

I hope you have a wonderful holiday season,

Canan Bilen-Green  
canan.bilen.green@ndsu.edu

# Featured Alumni: Clint Rossland



Clint Rossland, Class of 2003, at the new Sanford hospital construction site.

Clint Rossland earned a bachelor's degree in IME from NDSU in 2003. In 2010, Clint joined Sanford Health in Fargo as a Process Improvement Coordinator in the Office of Continuous Improvement after spending three years in small business consulting with the Dakota Manufacturing Extension Partnership, teaching and facilitating lean manufacturing projects. At Sanford, he

manages projects in a variety of settings throughout the organization aimed at improving efficiencies and streamlining processes using the lean healthcare methodology. Currently, he is heavily involved with the facility planning and construction of the new \$494 million Sanford Fargo Medical Center scheduled to open in 2017. Many projects are underway to get the people and processes

ready for the new facility.

Clint stays active on the IME Advisory Board and as an adjunct lecturer, teaching Hospital Management Engineering as the healthcare elective course. Clint and his wife, Nancy (BS Civil Engineering '03), currently reside in Moorhead, MN. They have two children, Jacob (8) and Ellie (5). They all love to cheer on the Bison!

## Institute of Industrial Engineers Fall Trip

The NDSU chapter of IIE recently took their Fall trip to the Minneapolis area. Twenty-five Industrial and Manufacturing Engineering students participated. Their trip included visits to: the water division of the General Electric company, a tour of Boston Scientific, and a tour of Stratasys.

The trip provided a great opportunity for the NDSU IIE chapter to meet up with the Twin Cities IIE chapter. Both chapters were able to meet at Dave and Buster's after a day of touring companies. The Twin Cities chapter was able to share about their various career paths, which was encouraging for students in the NDSU chapter to hear.

The NDSU IIE Chapter President Eric Schauer (IE & M Senior) said: "Stratasys was the biggest highlight for me. I found it very interesting how much capability they have to manufacture there. They can create nearly any part you can dream of."

Overall, an enjoyable and informative trip was had by all. The chapter is looking forward to their Annual Spring Regional Conference, in Milwaukee this coming March.



The NDSU IIE Chapter stopped by the Minnesota Vikings practice facility on their Fall Trip.



### Please Detach and Mail

- I am interested in purchasing an IME polo shirt to help support the IIE chapter. Size needed: \_\_\_\_\_
- Please send a \$ 45 check (The IIE chapter cannot accept credit card payments at this time) and your shipping address to:
- NDSU, IME Dept 2485 PO Box 6050 Fargo, ND 58108

This fall our Department had a fundraiser for our local IIE chapter. If you are interested in purchasing an IME polo shirt please contact us. We have a variety of both men and women's sizes available.

## Featured Students:

### Katie Scholl

Katie Scholl is a current senior at NDSU. She will be finishing an Industrial Engineering and Management degree in December. Throughout her time at NDSU she has been actively involved in a variety of programs including Society of Women Engineers and TechGYRLS, which delivers S.T.E.M. concepts to third through seventh grade girls through fun weekly lessons. Being a part of a program where women engineers can show young girls the excitement in engi-

neering has been extremely fulfilling for Katie.

Katie says, “Along with my education and organization involvement, the IME department has helped me to be prepared for my internship experiences, which have provided me with invaluable real-world experience. I have had the opportunity to intern at Ecolab, Walt Disney World, and Sanford Health. With these internships, I have worked on wide ranging projects, including creating an extensive value stream process map of a computer software system, leading a project to improve guest flow on a

park attraction, and working on a team of doctors, nurses and engineers to improve the flow of beds through a hospital. Upon graduation, I will be working full-time with Medtronic as an Associate Industrial Engineer, I am anxious to apply this Industrial Engineering experience to my career. My time here as a student at NDSU is quickly wrapping up, but it has been such a great experience that I feel has truly prepared me for a fulfilling future as an Industrial Engineer.”



NDSU IME Student Katie Scholl at Grand Floridian Resort during her internship.



IME Student & NDSU Student Body President Sarah Russell, working in the Manufacturing Process Laboratory.

Sarah Russell is a junior at NDSU, studying Industrial Engineering. She grew up about two miles from campus in North Fargo, and graduated from North High School. She became interested in engineering in high school, simply because she loved calculus. When she began studying at NDSU, she found out engineering is *much* more than just math. She feels industrial engineering fits her strengths and interests in working with

others to maximize a process or system.

Sarah says: “I’ve enjoyed my time at NDSU outside of the classroom, too, by getting involved with Student Government. I joined my freshman year, and was fortunate enough to be elected Student Body President last spring. Student Government has given me the best chance of giving back and serving the best university in the world, and I love every minute of it. The administrators,

faculty, students, and staff that I have had the pleasure of working with are absolutely phenomenal, and I’ve made lifelong friends through this organization. I’ve learned just as much in serving as Student Body President as I have in the classroom, and am excited to apply the experiences I’ve gained into my future career. “

### Student Body President Sarah Russell

## 2014 Capstone Projects

*“The IME senior students culminate their education in a senior capstone project.”*

The IME senior students culminate their education in a senior capstone project. Each semester students work with companies, within the region, to complete a project specifically for their company. If your company is interested in sponsoring a Capstone Research Project, please contact us for more information. This past calendar year there were five projects completed:

### Spring 2014 Projects:

*APEX Order Fulfillment Process Improvement:* Tecton Products, LLC.  
Students: Katie Scholl, Justin Clark, Hasith Ranasinghe

*Warehouse Layout and Design:* D&M Industries

Students: Patrick Hebert, Twila Moser, Nawal Whig

*Marketing Sample Production Process Improvement:* Tecton Products, LLC.

Students: Austen Dahmes,

Wyatt Knell, Jiabin Lin  
*Production Process Documentation Improvement:* D&M Industries

Students: Daniel Neveaux, Justin Schultz, Tyler Pulkrabek

*Designing SPC for M113 Machine:* Case New Holland

Students: Zachary Madsen, Michael Strand, Xingliang Zheng

*Unmanned Hydrostatic Test Development:* Bobcat

Students: Ian Vanic, Micah Larson, Chenguang Long

### Fall 2014 Projects:

*Development of RFID Solution:* Horton Manufacturing

Students: Brandon Gates, Ravith Grero, Connor Johnson, Nicholas Thomes, Jessie Zerr

*Inventory and Equipment Layout*

*Improvements:* Integrity Windows

Students: Sammera Ahanasing, Omar Ahmad, Mitch Giese, Kyle Sanford, Pedro dos Santos

*Continuous Improvement Analysis on Loading Job Functions:* SuperValu

Students: Nitesh Kharel, Benjamin Klingbeil, Serhat Kofteci, Monit Verma



Capstone Presentations:

Fall 2014 Students Pictured Above  
Spring 2014 Students Pictured Below



## Dr. Khoda Featured in Library Workshop on Additive Manufacturing



On October 20th Dr. AKM Bashir Khoda was a featured presenter in the 3D Printing Showcase sponsored by the NDSU Library.

Dr. Khoda's cutting edge

research drew the attention of undergraduate and graduate students. His work in Additive Manufacturing in the Healthcare Industry is quite fascinating.

This past summer Dr. Khoda was able to work with the Governor's

School here on the NDSU campus. Area high school students were able to produce 3D printed sugar cookies under Dr. Khoda's direction. (Picture to left).

For more information on this project please visit the IME website.

## Opportunities to Give Back

The Industrial and Manufacturing Engineering Department is excited to offer you ways to give back to the institution and the department. As advances are being made in the fields of Industrial and Manufacturing Engineering our faculty is finding that much of our lab equipment is in need of a major upgrade, we would love to be able to upgrade our lab facilities for our students.

Each year we also provide scholarships to several students, so they may continue to pursue their education here at NDSU. The students are so thankful to our Alumni and friends who make their education possible.

Please take some time to consider donating a tax-deductible gift to the Industrial and Manufacturing Engineering Department. We would be grateful for any support you can provide our faculty and students.

### Donation Form:

Please fill out, detach and return to the Industrial and Manufacturing Engineering Department at NDSU.

**Mailing Address:** NDSU Development Foundation 1241 N. University Dr. PO Box 5144, Fargo ND, 58105-5144  
The NDSU Development Foundation is qualified to receive gifts, donations, & bequests that are deductible for federal income tax purposes.

Name(s): \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

My/our gift of \$\_\_\_\_\_ is pledged and presented to the North Dakota State University Development Foundation.

This gift is designated for (select one):

- IME General Fund (Fund #EA30081)    IME Scholars Fund (Fund # EA30216)  
 IME Labs Fund (Fund #EA30144)

Cash: Enclosed is a check to the "NDSU Development Foundation" for \$\_\_\_\_\_.

Credit Card: Please charge my gift of \$\_\_\_\_\_ to my:    Visa

Account # \_\_\_\_\_    Discover

Expiration date: \_\_\_\_\_    Master Card

Card security code: \_\_\_\_\_    American Express

Your signature: \_\_\_\_\_    Diner's Club

Matching gift: Enclosed is a matching gift from my employer or my partner's company.

Thank you, from all of us at NDSU IME!



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**Visit Our Website:**

**[www.ndsu.edu/ime/](http://www.ndsu.edu/ime/)**



# Alpha Pi Mu

This Fall our local chapter of Alpha Pi Mu has been reactivated. After a short hiatus of activity our NDSU Alpha Pi Mu chapter is back up and running.

Alpha Pi Mu is a National Honor Society for Industrial Engineers. The national chapter was developed by James T. French in 1949 as a way to distinguish Industrial Engineers who are in the top of their class.

The NDSU chapter will be hosting an induction ceremony early in the Spring Semester. Please contact us if you are interested in attending this important event.

If you are a member of Alpha Pi Mu we are currently looking for NDSU Alpha Pi Mu Alumni to participate in the induction ceremony. Please contact Dr. Canan Bilen-Green if you are interested in participating.

