

Construction Alumni Lead Sanford Medical Center Project

Joanna Slominski earned a Bachelor of Science in Construction Engineering from NDSU in 2004. She is currently employed by Mortenson Construction and is the Construction Executive overseeing the Sanford Medical Center project. The Sanford Medical Center is the largest Fargo-Moorhead construction project and by the summer of 2015, this \$494 million building will involve 600-800 workers. The project is on track for completion in early 2017. Joanna says the skills she learned in the Construction Engineering program helped her prepare for her role in the construction industry. She also stated that the curriculum encourages team work, which is essential to the success of a project like Sanford.

Construction alumni employed by Mortenson or Nor-Son (Mortenson's project partner) currently working on the Sanford site are pictured at left. (Left to Right, Back Row: Cory Jackson, Tucker Norton, Marcus Myre, Oliver Finneman, Jeremy Cossitt, Andrew Pringle, Bart Extrand; Front Row: Joanna Slominski, Jason Toso, Chris Kentzelman and Brian Lambrecht; Not Pictured: Mike Bratton and Derek Hoeschen)

Several CM&E faculty members have used the Sanford project for student learning.



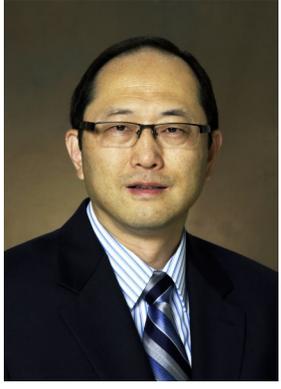
NDSU CONSTRUCTION MANAGEMENT AND ENGINEERING

NEWSLETTER
Spring 2015

Construction Programs Earn Six-Year Renewal of Accreditation

With the great effort of stakeholders, the Bachelor of Science in Construction Management (BS in CM) program has just earned a six-year renewal of accreditation by the American Council for Construction Education (ACCE). The ACCE has accredited NDSU's BS in CM program since 1984. The most recent accreditation visit was conducted in September 2014. In 2013, the Bachelor of Science in Construction Engineering (BS in CNE) program received the six-year renewal of accreditation by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). NDSU's BS in CNE has been accredited by ABET since 1983, making it the third oldest construction engineering program in the United States. NDSU is one of five universities in the United States that offers both a Bachelor of Science in Construction Management and a Bachelor of Science in Construction Engineering on the same campus. Many students have benefited from the construction programs at NDSU and have become industry leaders both in the United States and overseas.

NDSU NORTH DAKOTA STATE UNIVERSITY



It is my pleasure to share the accomplishments of the Department of Construction Management and Engineering with you. Based on the results of the September 2014 accreditation visit, the American Council for Construction Education (ACCE) granted a six-year renewal of accreditation to the Bachelor of Science in Construction Management program in February 2015. Earning the six-year renewal of accreditation indicates that our undergraduate construction management program, valued by students and the construction industry, has and will continue to provide knowledge, skills, and learning experiences of the highest quality. Our enrollment has been increasing since Fall 2014. Employment rates for students in the Bachelor of Science in Construction Engineering program and the Bachelor of Science in Construction Management program were 100 percent and 91 percent in 2014, respectively.

Our faculty members, along with their graduate students have been conducting research projects to sustain the economic growth in North Dakota and the nation. **Dr. Matthew Stone** has been developing erosion and sediment control training courses for the North Dakota Department of Transportation. **Dr. Eric Asa** received a grant to conduct research on unpaved road dust control in the Bakken region of North Dakota. **Dr. Todd Sirotiak** conducted a research project to study the electrical contractors' competitiveness by incorporating the Construction Wireman/Construction Electrician (CW/CE) classification into construction operations. A student team, advised by **Dr. Jongchul Song**, won first place in the design-build division of the annual Associated Schools of Construction-Region 4 competition in Nebraska City, Nebraska. This is the second year in a row that the NDSU team won first place in the design-build competition. **Dr. Jerry Gao** received the International Student and Study Abroad Services Green and Golden Globe Diversity Award. **Syed Owais Ahmed**, a graduate student advised by **Dr. Jongchul Song**, was inducted into the Tapestry of Diverse Talent at NDSU in February 2015. These are just some examples of the successes from the past year. I hope you enjoy reading the rest included throughout the newsletter. Finally, I would like to thank you for continually supporting the construction programs at NDSU.

Dr. Yong Bai, Chair and Professor

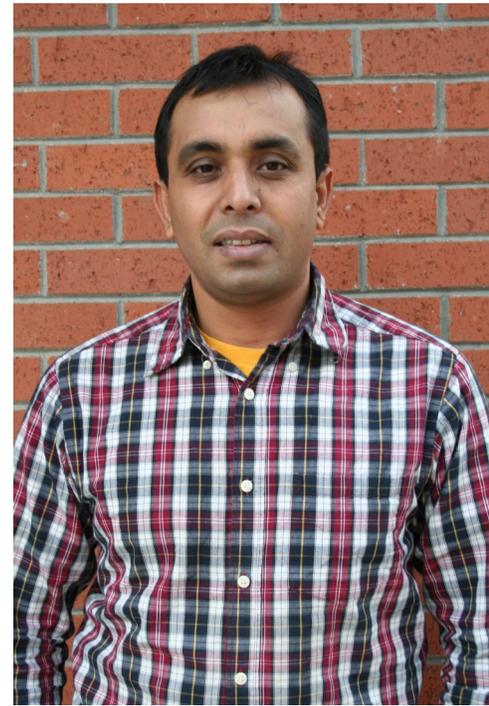
Outstanding Construction Graduate Award

The Outstanding Construction Graduate was named during the Graduating Senior Dinner which was held on April 16, 2014 at the NDSU Alumni Center. The dinner was sponsored by Associated General Contractors of North Dakota, Construction Engineers, Dakota Construction, Industrial Builders Inc., McCarthy Construction, Mortenson Construction, and Roers. **Jeffery Jackson** received the Outstanding Construction Graduate Award. Samuel Caven, Derek Dame, Erik Diederich, and Lucas Judd were Jeffery's fellow nominees.



Mohammad Molla's Research Recognized By TRB

Mohammad Molla is pursuing a Ph.D. with an emphasis in Construction Engineering under the supervision of Dr. Matthew Stone and is a Doctoral Graduate Research Assistant for the Advanced Traffic Analysis Center, Upper Great Plains Transportation Institute. Mohammed's research entitled *Geostatistical Approach to Detect Traffic Accident Hot Spots and Clusters in North Dakota*, was recently featured in the Transportation Research Board (TRB) University Research Newsletter. Mohammed's study investigates geostatistical approaches using ordinary Kriging and clustering analysis for traffic crash data in order to identify the traffic accident hot spots in North Dakota counties. The research analyzes 37 years (1975–2011) of fatality crash data available from a U.S. National Highway Traffic Safety Administration official. The resulting geostatistical and tracking analysis model, based on single linkage method clustering, discovered significant facts and features and yielded critical threshold zones for higher accident prone counties/areas in North Dakota counties. This provides an avenue for improving traffic safety; consequentially, the outcomes of this research can aid relevant agencies/industry in making better decisions for traffic safety planning and administration.



Scholarship Recipients

For the 2014-2015 school year, the students in the CM&E Department received \$55,699 in scholarships. The 2014-2015 Scholarship recipients are listed below.

Wyatt Aberle	Shane Hillen
Chase Baker	Jordan Hochhalter
Jordan Bartsch	Aaron Janz
Grace Becker	Joseph Kasper
Daniel Benson	Conner Mann
Loren Bothun	Brookston Mathern
Luke Capistrant	Seth Morken
Taylor Carlson	Kyle Pederson
Brittany Diederich	Ryker Reil
Tylor Doll	Landon Schmitz
Alexander Feil	Bryan Silvers
Jon Fishbeck	Tanner Volson
John Garceau	Taylor Werner
Jordan Gleason	Benjamin Ziemer





Ahmed Inducted Into The Tapestry of Diverse Talents

Syed Owais Ahmed, graduate student, was inducted into the Tapestry of Diverse Talents on February 19, 2015. The Tapestry of Diverse Talents is a program of the North Dakota State University Memorial Union that recognizes students, faculty, staff, and alumni for the diversity and contributions they bring to NDSU.

Molla Receives North Dakota View Scholarship

Mohammad Molla, Ph.D. student, was awarded a \$500 scholarship from the North Dakota View to help promote his professional development in remote sensing and other geospatial technologies. The North Dakota View, led by the UND Department of Geography, is a member of the AmericaView Consortium and is dedicated to promoting remote sensing and geospatial technologies within North Dakota.



Students Win At Annual ASC Student Competition



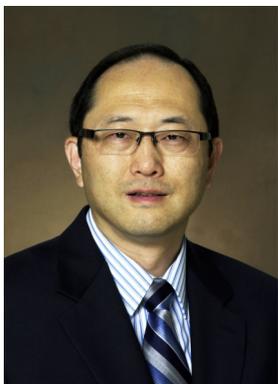
The Associated Schools of Construction (ASC)- Region 4 met on October 22-25, 2014 in Nebraska City, Nebraska for its annual conference. Eleven of the fourteen universities in the seven-state region were represented. In attendance were 24 university faculty and 29 teams totaling 176 students. During the 21st Annual Construction Management Student Competition, students competed in four divisions: Commercial, Design-Build, Heavy-Civil, and Residential. To place students in “real life” project management situations, real plans and specifications from real projects were used. In an 18-hour period, students had to schedule, estimate, run cost analyses, and resolve several management issues that arose during the project planning phase. Students prepared proposals that included their team’s plans for

managing and constructing the project and presented to a panel of judges. The panel which reviewed and graded the proposals, was comprised of representatives from all facets of the construction industry. Student groups from the Department of Construction Management and Engineering, coached by **Dr. Jongchul Song**, took home honors in the Design-Build Division and the Residential Division. NDSU students placed first in the Design-Build Division. Team members included: Chase Baker, Brendan Cullen, Jordan Gleason, Tim Halvorson, Chris Miller, and Landon Schmitz. NDSU students placed third in the Residential Division. Team members included: Brandon Davis, Shane Hillen, Jeff Jackson, Jason Kirschenheiter, and Anthony Leighow, and Carin Neseth.



Dr. Eric Asa Advises Students in STEM Research

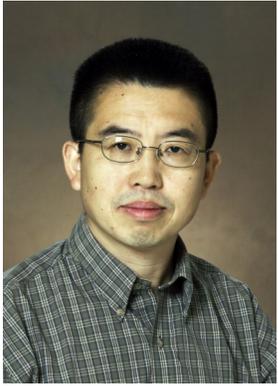
The STEM Summer Research Program provides high-academically achieving underrepresented ethnic minority students a chance to study in the sciences, technology, engineering, and mathematics fields as well as learn about the graduate school. Caleb M. Woodies (pictured below on right in left photograph) and Lawrence K. Okereke (pictured below on left in left photograph) conducted research in the Concrete Lab under the guidance of **Dr. Asa** in the summer of 2014. Caleb's parent university is Virginia State University in Petersburg, Virginia. Lawrence's parent university is Prairie View A&M University in Prairie View, Texas. The results of their summer research was presented on July 14, 2014.



Dr. Yong Bai Organizes An International Conference

Dr. Bai, chair and professor of the Construction Management and Engineering Department, was the chair of the Technical Committee of the 10th Asia Pacific Transportation Development Conference (pictured above in right photograph), which was held in Beijing, China on May 25-27, 2014. More than 200 scholars attended the three-day conference. A total of 84 presentations were given during the meeting. In addition, 85 peer-reviewed conference proceedings were published by the American Society of Civil Engineers (ASCE).

Dr. Bai was the lead editor of the ASCE proceedings. The conference was hosted by Beijing University of Technology and co-sponsored by the National Nature Science Foundation of China, the Beijing Nature Science Foundation, and the Transportation & Development Institute of the ASCE.



Dr. Zhili “Jerry” Gao Receives Award

On April 30, 2014, during the 5th Annual Green and Golden Globe Diversity Awards Ceremony, **Dr. Gao** was presented with the International Student and Study Abroad Services Green and Golden Globe Diversity Award. The Office of International Student and Study Abroad Services stated that “Dr. Gao has been instrumental in developing strong partnerships with institutions in China and is a great supporter of students who transfer to NDSU. Dr. Gao takes special care to ensure his department documents are complete and in order, even personally walking them to their destination to ensure they are received in a timely manner. Beyond paperwork, Dr. Gao is wonderful with students and exchange visitors, often personally accompanying them to the Office of International

Student and Study Aboard Services when they first arrive. Friendly, knowledgeable, approachable, and helpful, he is a joy to work with.”



Dr. Huojun Yang Joins CM&E Department

Dr. Yang joined the Department as an assistant professor in September 2014. He received his Ph.D. in 2012 from the University of Nebraska at Lincoln. Since Fall 2014, Dr. Yang has been developing the coursework in a new area called Built Environment Systems. This new area will be launched under the BS in Construction Engineering program in Fall 2015. His research interests include smart building systems, building environment systems, and building energy.



Dr. Todd Sirotiak Discusses Recent Research

Dr. Sirotiak recently established a new collaborative relationship with several graduate students investigating concrete enhancement, education, and sustainability. He also recently completed a research report for ELECTRI International. Dr. Sirotiak examined current Construction Wireman/Construction Electrician (CW/CE) practices utilized by well-established electrical contractors. Results of this study provided strong evidence that a majority of projects can utilize CW/CEs successfully. He proposed ways to incorporate CW/CEs into the workforces of companies and also recommended practices for training and methods for implementation, as well as addressed potential challenges. Dr. Sirotiak investigated additional areas such as competitiveness, market

share, productivity, membership, schedule performance, and safety. Results of the study indicate that CW/CEs enhance competitiveness and market share without adverse effects.

The report, *Best Practices for CW/CE Implementation*, is accessible on ELECTRI International’s website at: <http://www.electri.org/research/best-practices-cwce-implementation>



Dr. Matthew Stone Talks Research

Dr. Stone assisted the Upper Great Plains Transportation Institute (UGPTI) at NDSU in the development of training courses on erosion and sediment control for the North Dakota Department of Transportation (NDDOT). Two courses were developed as part of the training program. A design course was created to aid NDDOT personnel and consultants on planning and designing control measures to minimize soil erosion and sediment loss from highway construction sites. A construction course was developed to focus on the management and proper installation and maintenance procedures used during the construction phase of the project.

Dr. Stone also worked with researchers Dr. Eric Giannini and Dr. Jay Lindly from The University of Alabama to investigate the use of carbonate coarse aggregates in portland cement concrete pavements in the state of Alabama. Current Alabama Department of Transportation (ALDOT) specifications do not allow the use of limestone in mainline concrete pavements due, in part, to fear of aggregate polishing over time. From the research, the team provided recommended revisions to ALDOT material and construction specifications and provided best practices for aggregate and pavement friction testing. The research team also provided future research needs on diamond grinding concrete pavements that were identified during the project.

CM&E Staff Members Provide Excellent Service

Our staff members, **Ann Denney** and **Ingrid Scarski**, continue to provide excellent service to students and faculty. Nate Rumschlag, a Master of Construction Management student, recently wrote an article for the Distance and Continuing Education website and within his post, he mentioned his positive experience working with Ann and Ingrid. Ann and Ingrid's dedicated service was acknowledged during the CM&E Graduating Senior Dinner, which was held on April 16, 2014.

Thomas D. McCormick, 1972

Thomas D. McCormick graduated in 1972 from the Construction Management program at NDSU. Tom has worked for Northern Improvement Company since 1971 serving in multiple roles. He has worked as chief engineer, senior vice president in charge of engineering, and he currently serves as the president and chief executive officer. In his current position, Tom is responsible for general operations, finances, and engineering. In 2005, Tom was appointed Chairman of the Board at Northern Improvement Company. He has been a registered Professional Engineer since 1978 and has served as the president of the North Dakota Chapter of Associated General Contractors of America.



Dan Johnson, 1986

Dan Johnson is a 1986 Construction Engineering graduate of NDSU. Dan was recently promoted to president of M. A. Mortenson Company, a U.S.-based, family-owned construction and development services company, and one of the nation's top builders. Dan joined Mortenson in 1986 following his graduation from NDSU. During his 29 years with Mortenson, he has been involved in the start-up and ongoing operations of many of the company's businesses including offices in Milwaukee, Chicago, Phoenix, and Portland. Dan was instrumental in launching Mortenson's renewable energy business and growing the company's real estate development business. Dan is active on several Boards including the Lean Construction Institute and the Crohn's and Colitis Foundation of America. He is a member of the Construction Industry Ethics and Compliance Initiative and the ACE Mentor Program National Leadership Council, as well as NDSU's Construction Management and Engineering Department Industry Advisory Council. Dan also is on the Executive Committee for the 2016 Ryder Cup and is a former Board member of Hazeltine National Golf Club.

Brett Kallias, 2003

Brett Kallias graduated in 2003 from the Construction Engineering program at NDSU. After graduation, Brett went to work constructing new bridges and roads for the North Dakota Department of Transportation (NDDOT) in the Devils Lake District. In 2006, Brett founded Accelerated Green Works, Inc., a landscaping company located in West Fargo. Brett is pictured on left with his wife Jodi Kallias who graduated from NDSU in 2010 with a BS in Environmental Design and in 2011 with a Master of Architecture.



Herman Durazno, 2011

Herman Durazno earned his MS in Construction Management in 2011. He is a project manager for the Laurin Group and recently completed a new concept store for a retail client. The project included high-end finishes custom millwork, a 30 feet foyer with drywall ceilings, custom miscellaneous steel, super flat concrete slab and polishing, concrete panels around a custom walk-in cooler and 1500 light fixtures and associated mechanical and electrical. One interesting feature is that 100 wood barrels were cut in half and bolted to the reinforced structural steel wall. This was by far the most challenging project in

Herman's ten years in the construction industry. He stated, "I would have not succeeded if it was not due in part to both my experience and my education, especially my construction management graduate study at NDSU."

Alumna Wins Award

The NDSU Development Foundation and Alumni Association recently announced the Alumni Awards will be held on May 6, 2015. **Joanna Slominski**, 2004 Construction Engineering graduate, is one of the three 2015 Horizon Award recipients. The Horizon Award honors graduates of the past 15 years who have distinguished themselves in their profession and/or in service to their community. Joanna is employed by Mortenson Construction and is the Construction Executive for the \$494 million Sanford Medical Center currently under construction in Fargo.



IAC News

On October 28, 2014, members of the Industry Advisory Council (IAC) discussed the possibility of establishing a Bachelor of Science (BS) in Architectural Engineering program within the Department of Construction Management and Engineering. The need for building design and construction is increasing, and there is no Architectural Engineering program to meet this demand in the region (Iowa, Minnesota, North Dakota, South Dakota, and Montana).

The Department could seize this opportunity by establishing an Architectural Engineering program. It was suggested to utilize a two-step approach to achieve this goal. The Department will first establish a built environment systems (BES) area under the current BS in Construction Engineering program. If the BES area continues to grow, the Department will then transform the BES area into the BS in Architectural Engineering program. Providing advice and sharing industry's vision is the main role of IAC members. **John Eickhof** (pictured in center) is the current president of IAC. He is also the president of Construction Engineers Inc. in Grand Forks, North Dakota.

Associated General Contractors of America

The NDSU student chapter of the Associated General Contractors of America (AGC) promotes relationships among students and industry professionals. The AGC of North Dakota has provided almost \$40,000 scholarships to the construction students throughout the 2014-2015 school year. **Jordan Gleason** is the current president of the AGC student chapter.



National Association of Home Builders

The National Association of Home Builders (NAHB) NDSU chapter meets with industry professionals for discussions about real-world construction practices. Five students from NDSU competed in the 2015 Residential Construction Management Competition in Las Vegas, Nevada. The five students are pictured to the right (Left to Right: Mason Anderson, Ian Bullis, Liam Prior, Landon Schmitz, and Samuel Manke).



Sigma Lambda Chi

Sigma Lambda Chi is an international construction honor society that provides construction students the opportunity to be recognized for their academic achievements and connect with industry professionals. The students listed below were inducted in Spring 2014.

Syed Owais Ahmed
 Kyle Emanuel
 Jordan Gleason
 Manisha Goyal

Dharminder Kaur
 Jonathan Pistorius
 William Rader
 Bryan Silvers



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CM&E Degree Programs and Spring 2015 Enrollment

Bachelor of Science in Construction Engineering	37
Bachelor of Science in Construction Management	144
Graduate Certificate in Construction Management (online)	5
Master of Construction Management (online)	23
Master of Science in Construction Management	7
Doctor of Philosophy with an emphasis in Construction Engineering	5

2013-2014 CM&E Graduates

Bachelor of Science in Construction Engineering	5
Bachelor of Science in Construction Management	30
Master of Construction Management (online)	6
Master of Science in Construction Management	1

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