The City of Fargo

Historical Background

The area that is present-day Fargo was an early stopping point for steamboats floating down the Red River during the 1870s and 1880s. The city was originally named "Centralia," but was later renamed "Fargo" after Northern Pacific Railway director and Wells Fargo Express Company founder, William Fargo (1818–1881). The area started to flourish after the arrival of the Northern Pacific Railroad and the city became known as the "Gateway to the West." A major fire struck the city on June 7, 1893 when the proprietor of a grocery store accidentally started the blaze after emptying ashes behind her store on a windy day. The fire destroyed 31 blocks of downtown Fargo; however, the city was



immediately rebuilt with new buildings made of brick, new streets, and a water system. Over 246 new buildings were built within one year.

The North Dakota State Agricultural

College was founded in 1890 as North Dakota's land-grant university, becoming first accredited by the North Central Association in 1915. In 1960, NDAC became known as North Dakota State University.



The City of Fargo is part of the Fargo–Moorhead metropolitan area which is comprised of the cities of Fargo and West Fargo in North Dakota, Moorhead and Dilworth in Minnesota, and the surrounding communities. These cities lie on opposite banks of the Red River of the North which acts as the border between the two states. In October, the Fargo-Moorhead area records



temperatures that average from 35 degrees Fahrenheit for the low to 56 degrees Fahrenheit for the high, so warm clothing is recommended.

Additional Visitor Information

Fargo-Moorhead is host to many visitor attractions, which include multiple shopping centers, active nightlife destinations, excellent restaurants, historical museums, and cultural attractions. For additional information, please visit the Fargo-



Moorhead
Convention
and Visitors
Bureau
website or the



Downtown Community Partnership website, accessible through the conference website by clicking on the "The City of Fargo" link.



Can Engineering Education Be Life Changing?

October 17-18, 2013

North Dakota State University Fargo, North Dakota

INVITATION

Welcome to the 2013 North Midwest Section Conference of the American Society for Engineering Education (ASEE). North Dakota State University (NDSU) College of Engineering is pleased to host this conference. College of Engineering Dean Gary Smith has strongly supported the efforts of a committee of 20 faculty members along with significant help from other staff members. The North Midwest Section members have enthusiastically supported this conference by submitting a large number of papers. Accepted papers have been through a review process involving two peer reviewers and three editors. We think you will be pleased with the opportunity to choose from 46 papers that will be offered in three parallel tracks on Friday, Oct. 18, 2013. If you arrive the day before, please take advantage of the technical tours we have arranged and our Thursday evening reception, because, most of all, we look forward to meeting old friends and making new ones as we share together our commitment of educating this next generation of engineers. If there is anything we can do to make your stay more enjoyable, don't hesitate to ask.

Sincerely,

David A. Rogers, Ph.D. G. Padmanabhan, Ph.D.
College of Engineering
North Dakota State University
Conference Co-chairs



SPONSORS













TECHNICAL SESSIONS

The conference theme is: "Can Engineering Education Be Life Changing?" Engineering faculty face new challenges every day. These challenges are threefold: (1) the ever-changing science and technology of their discipline, (2) the unpredictable changes in student culture, and (3) the evolving expectations of the academic career and the society we serve. Our students face challenges as well: (1) the changing demands of the world of work, (2) the unpredictable economy of the future, and (3) peer and family pressures to be successful in all aspects of life. The clash of these two worlds is the battleground of contemporary engineering education. How can faculty and students work together to create their futures? The ASEE North Midwest Section Conference at North Dakota State University will provide an opportunity for exploration of the problems and opportunities thus presented.

The technical program will offer nine sessions consisting of four papers each taking place in three parallel tracks on Friday, Oct. 18, 2013:

- 1. Strategies for Improving Instruction A, B, C, and D
- 2. Trends in Engineering Program Development
- 3. Design Experience in Engineering Curricula
- 4. Collaborations to Increase Efficiencies in Engineering Education
- 5. Problem Based learning
- 6. Dimensions of Engineering Education
- 7. Embedded System Teaching
- 8. Engaging Students for Better Learning
- 9. Retention is the Name of the Game

SPECIAL EVENTS

Reception

Conference reception starts at 5:30 p.m. on Thursday at the Fargo Holiday Inn. Meet old friends and make new ones. Refreshments will be provided (no host bar).

Luncheon

The luncheon session features Dr. Karl A. Smith, fellow of the ASEE and an international expert in engineering education (see Dr. Smith's bio on the conference web site), who will present insights and perspectives for the design and operation of First-Year Engineering Programs (FYEP). Dr. Smith will address topics such as the philosophy of an FYEP, core curriculum requirements, the role of faculty advising, the role of mentoring and tutors, and required resources. The session will also discuss the relationship of FYEP's to core courses in mathematics, chemistry, physics, computer programming and communication skills.

❖ Tours

A tour of NDSU's Center for Nanoscale Science and Engineering (CNSE) and a tour of laboratories in NDSU's College of Engineering will occur from 3:00 to 5:00 p.m. on October 17th, just before our conference reception.

EXHIBITS

Exhibits will include materials, equipment, software, and state-of-the-art tools applicable to engineering education. A list of exhibitors will be available on the conference website. We thank the businesses for their financial support and contributions to making the 2013 ASEE North Midwest Section Conference a meaningful conference. For information about exhibiting at the Conference, please contact conference co-chairs David.Rogers@ndsu.edu and G.Padmanabhan@ndsu.edu.

For the most current information, visit the conference website:

http://www.ndsu.edu/coe/2013 asee north midwest section conference/

REGISTRATION

Go to the conference website and register online.

The regular registration fee is \$150 for regular members while students and ASEE Life Members get a discount of \$90, paying only \$60. Additional discounts will be offered for early registration by September 25th where regular members will have a discount of \$25, paying only \$125, and students and ASEE Life Members will get a discount of \$100 paying only \$50. Please note that a discount is given as you progress through the website registration process.

- Regular until September 25th: \$125
- Regular after September 25th: \$150
- Students and ASEE Life Members until September 25th: \$50
- Students and ASEE Life Members after September 25th: \$60

Registration includes admission to technical sessions and tours, the reception on Thursday, Friday breakfast and lunch, and one copy of the conference proceedings on a flash drive.

HOTEL REGISTRATION

A block of rooms has been reserved at the Fargo Holiday Inn:

Holiday Inn Fargo-West Acres 3803 13th Ave. S. Fargo, ND 58103 Phone: 701-282-2700

To make reservations, call 701-282-2700 and mention the conference's discount code "ASE", or book online at Holiday Inn online booking – the hotel website is accessible through the conference website by clicking on the "Accommodations" link. Conference attendees who make their hotel reservations by September 20th will pay a discounted rate of \$109 per night, plus taxes. Reservations received after Sept. 17th will be provided on a space available basis.

Holiday Inn Fargo-West Acres is located in Fargo, close to West Acres Mall, North Dakota State University, and Red River Zoo. Nearby points of interest also include the Plains Art Museum.

PROGRAM (Room Names at Fargo Holiday Inn)

Thursday, October 17

Noon – 9:00 p.m.	Registration (Atrium/Press Rooms)
3:00 p.m. – 5:00 p.m.	Tours to NDSU College of Engineering and CNSE labs
5:30 p.m. – 8:00 p.m.	Conference Reception (Crowne Hall)
7:30 p.m. – 10:00 p.m.	Section Executive Meeting (Mezzanine Suites)

Friday, October 18

7:30 a.m. – 5:30 p.m.	Registration (Atrium/Press Rooms)
7:30 a.m. – 8:30 a.m.	Breakfast (Conference/Director's Rooms)
8:30 a.m. – 10:00 a.m.	Technical Sessions (see detailed program)
9:00 a.m. – 5:00 p.m.	Exhibits (Atrium/Press Rooms)
10:00 a.m. – 10:30 a.m.	Break
10:30 a.m. – noon	Technical Sessions (see detailed program)
Noon – 2:00 p.m.	Lunch/Section Business meeting/Conference Speaker Dr. Karl A. Smith (Conference/Director's Rooms)
2:00 p.m. – 3:30 p.m.	Technical Sessions (see detailed program)
3:30 p.m. – 4:00 p.m.	Break
4:00 p.m. – 5:30 p.m.	Technical Sessions (see detailed program)