



Press Release

To:
From: Cheryl Osowski, Outreach Coordinator
Date: 5/09/09
Re: UND Student Wins Regional Competition

For Immediate Release

A mechanical engineering student from UND's School of Engineering and Mines has placed first in competition at the American Society of Mechanical Engineers (ASME) Student Professional Development Conference for District C held recently in Milwaukee, WI. David Dvorak, senior in mechanical engineering, won the "Old Guard" oral presentation competition with his presentation entitled "Unmanned Aircraft Systems and Precision Agriculture." He is now invited to present at the 2009 ASME International Mechanical Engineering Congress & Exposition in Lake Buena Vista, FL.

David's presentation described UND's Unmanned Aircraft Systems Engineering (UASE) team's experience developing and testing an imaging payload that gathers information about crop health. The "PrecisionAg" payload consists of a multispectral camera that can detect wavelengths of light that humans cannot see but that healthy vegetation reflects well. The payload was integrated and flown in several different UAVs, including ones owned by UND, Lockheed Martin, and Raytheon. The individual images captured can be stitched together to make a map showing the location of healthy or stressed crops within a field. Farmers can use this information to apply varying amounts of chemicals, based on the information gathered from the payload and UAV. This idea, known as Precision Agriculture, allows farmers to save money on chemicals and help the environment by preventing over spraying. David is a native of St. Cloud, MN.

Tom Oakland, senior mechanical engineering student from Bismarck, ND also presented and earned fifth place in the oral presentation competition.

The "Old Guard" competition is designed to emphasize the value of an ability to deliver effective oral presentations. The oral presentation is fifteen (15) minutes with five (5) minutes of questions and answers. The presentations are judged in four categories: content, organization, delivery, and effectiveness and discussion.

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Contact: Cheryl Osowski, Outreach Coordinator
UND School of Engineering and Mines
Upson II Room 165
243 Centennial Drive Stop 8155
Grand Forks ND 58202-8155
Tel: 701-777-3390 Fax: 701-777-4838
Email: cherylosowski@mail.und.edu

ASME is a non-profit educational and technical organization serving a worldwide membership of 125,000. Its mission is to promote and enhance the technical competency and professional well-being of its members and to better enable its practitioners to contribute to the well-being of mankind. UND is a member of ASME District C consisting of 11 states and 2 Canadian provinces and 58 member schools.

Picture caption: David is pictured in the UASE lab with precision ag payload in hand.

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About UND SEM: The UND School of Engineering and Mines (SEM) is a fully accredited engineering program offering undergraduate and graduate degree programs in civil, chemical, electrical, energy, environmental, and mechanical engineering, with undergraduate program concentrations in biomedical, computer and aerospace engineering. The School emphasizes its teaching mission while supporting a wide variety of innovative research in the areas of sustainable energy, bio-fuels, distance learning, aerospace payload development, remote sensing, engineered surfaces, and hydrogen fuel cell technologies.