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## ANNUAL CSE-EE PRE-GAME TAILGATE PARTY

September 25, 2010 Notre Dame vs. Stanford



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\_\_\_\_\_ NO. OF TAILGATE TICKETS ONLY \$15 EACH (NO LIMIT)  
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Payable to: **University of Notre Dame, Dept. of Electrical Engineering**

Mail form with payment to:

**CSE-EE Pre-game Tailgate Party**  
**Attn: Deb Gillean**  
**University of Notre Dame**  
**275 Fitzpatrick**  
**Notre Dame, IN 46556-5637**

Tailgate only cost is \$15 and includes hamburgers, bratwursts, salads, chips, cookies, and soft drinks. The party will be located in the main atrium of Stinson Remick and start at 11:30 a.m.

Limited number of game & tailgate ticket packages for CSE-EE alumni only, \$85 each. Payment is required to reserve a game and tailgate package.

For more information, contact:  
Deb Gillean, (574) 631-5480 or  
gillean.1@nd.edu



September 2010

A newsletter of the Department of Computer Science and Engineering at the University of Notre Dame

## Commencement 2010

The Department of Computer Science & Engineering (CSE) graduated 42 students on Sunday, May 16, 2010. A departmental ceremony was held in the afternoon and attended by the graduates, their families, and CSE professors. This year's faculty speaker, selected by the students, was Professor **Ramzi Bualuan**. Schubmehl-Prein Professor **Kevin W. Bowyer**, the department's chair, served as master of ceremonies. The ceremony was organized and coordinated by seniors **Nicole Artman** and **Alexander Tomala**, with the help of Administrative Assistants, **Ginny Watterson** and **Dian Wordinger**.

This year's Outstanding CPEG Senior recipients were **James Notwell** and **Robert Wettach**, and the Outstanding CS Award recipient was **Alexander Tomala**. **Tomala** also received the IEC William L. Everitt Award. **Christopher Durr** received the Faculty Choice Award for outstanding scholastic achievement.



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## Biometrics Research Activity Expands with Several New Awards Since 2009

Notre Dame's Computer Vision Research Laboratory, directed by Professors **Patrick Flynn** and **Kevin Bowyer**, received



the following research awards on the last year:

- Two separate awards totaling \$271,000 from FBI for research into discrimination of identical twins
- A \$760,000 grant from the US Department of Justice/ National Institute for Justice for face annotation and forensic applications
- An IC Postdoctoral Fellowship worth up to \$360,000 to be occupied by Ph.D. graduate **Dr. Karen Hollingsworth**, on the topic of periocular biometrics, and
- A cooperative agreement with Army Research Labs in the amount of \$1.5 million to support large-scale biometric data collection, validation and research on face and iris biometrics.

The biometrics research group has received in excess of \$8 million of external funding (including collaborative projects with other faculty at Notre Dame and at other universities) for its biometrics and computer vision research program since 2001. The lab supports the research of fifteen Ph.D. students, three research faculty members, twenty-nine undergrads and is supported by two technical staff members.

## Associate Professor Christian Poellabauer Co-Authors Book on Wireless Sensor Networks

"*Fundamentals of Wireless Sensor Networks: Theory and Practice*", co-authored by Associate Professor **Christian Poellabauer** and published by Wiley, is a textbook that describes the fundamental concepts and practical aspects of wireless sensor networks. The book provides a comprehensive view to this rapidly evolving field, including its many novel applications, ranging from protecting civil infrastructure

to pervasive health monitoring. Using detailed examples and illustrations, this book provides an inside track on the current state of the technology and includes topics such as sensor architectures, operating systems, network protocols, power management, sensor programming, and security. At the end of each chapter, the authors provide practical exercises to help students strengthen their grip on the subject, making the book an excellent choice as textbook for advanced undergraduate and graduate courses on the topic of sensor networks.



Christian Poellabauer

## Commencement 2010 (cont.)

The first-place winners of the Advanced Database Projects Competition held in Spring of 2010, sponsored by the **Thomas Meurer Endowment Fund for Excellence**, were **Michael Brickl, Christopher Dondanville, and Benjamin Drda**. Second -place winners were **Thomas Walton and Andrew Weber**. The third place prize was shared by two teams. Team one included **Natalie Dehen, Alyssa Krauss, and Michael Sullivan. Nicole Artman, Carl Beyer, and Angela Hiss** comprised team two. The winners were students enrolled in CSE 40746: Advanced Database Projects, taught by Professor **Ramzi Bualuan** and studied topics such as database design, development and management.

The Outstanding CSE Faculty Teaching Award was granted to **Professor Amitabh Chaudhary**.

Most of our graduates are planning to take a position in industry. Six are planning to attend grad school and one is pursuing a military career.

**Nicole Artman, Mark Doellman, and Robert Wettach** are this year's winners of the Mobile Application Development award, sponsored by the **Edward C. Ateyeh Endowment for Excellence Fund**. The winners were students enrolled in CSE 40333, Mobile Application Development taught by Professors **Patrick Flynn** and **Christian Poellabauer**. The goal of this course is to expose talented undergraduate students to hands-on experience with mobile systems and technologies, thereby preparing them for careers in mobile and wireless communications and applications.

Students receiving their degrees at this ceremony were **Nicole Artman, Emmanuel Bello-Ogunu, Alexander Bess, Carl Beyer, Michael Brickl, Kevin Cathcart, Natalie Dehen, Mark Doellman, Christopher Dondanville, Benjamin Drda, Christopher Durr, Tyler Emptage, Katherine Engstrom, John Fullard, Nathaniel Garrison, Ian Gavlick, Brendan Geisler, Christopher Gill, Michael Gonzales, Angela Hiss, Gregory Hochsprung, Daniel Kesser, Alyssa Krauss, John Langley, Leanne LeBlanc, Michael Lehmann, Sean McRoskey, Matthew Mooney, Alvin Mwangi, Thomas Newnam, James Notwell, Kevin Partington, Thomas Raynor, Peter Rowlands, Joseph Schmitt, Michael Sullivan, Alexander Tomala, Thomas Walton, Andrew Weber, Robert Wettach, Paul Zakas, and Jared Zenk**.

## Summer in London Program

Notre Dame's "Summer Engineering in London" program is increasingly popular with students. This year, 48 engineering undergrads spent six weeks in London. The students took two courses from Notre Dame faculty, and had field trips to the Thames River flood barrier and Iron Bridge ("birthplace of industry"), among others, and social outings to Shakespeare in the Park and elsewhere. One of the two courses this year was Ethics and Professionalism in Engineering, taught by Professor **Kevin Bowyer**, chair of CSE.

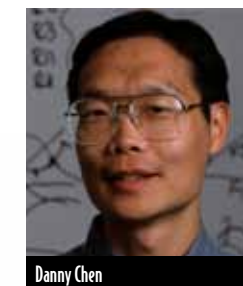


Left to right: Max Gabreski, Corey Brady, James Denué, Nicholas Balsamo, Andrew Mironovich, Kevin Bowyer, Benjamin Fuja, Katelyn Troyer, and Antwane Mason

## Two CSE Alums Became Tenured Associate Professors at US Universities

In the summer of 2010, two former CSE Ph.D. students have become tenured associate professors at two universities in the US. In particular, Dr. **Xiaodong Wu** (Ph.D. 2002) has been promoted to Associate Professor of Electrical and Computer Engineering and Associate Professor of Radiation Oncology with tenure at the University of Iowa, and Dr. **Shuang (Sean) Luan** (Ph.D. 2004) has been promoted to Associate Professor of Computer Science and Associate Professor of Radiology with tenure at the University of New Mexico. The research work of both Dr. Wu and Dr. Luan has focused on developing computational solutions for medical imaging and radiation cancer treatment problems, funded by NSF and NIH (including NSF and NIH CAREER Awards).

Both Dr. Wu and Dr. Luan's Ph.D. thesis advisor was Professor **Danny Chen**.



Danny Chen

## Chawla Joins the Science Advisory Board of Health Discovery Corporation



Nitesh Chawla

SAVANNAH, Ga.--(BUSINESS WIRE)-- Health Discovery Corporation announced today that **Nitesh Chawla**, Ph.D., Assistant Professor in the Department of Computer Science and Engineering and Co-Director of the Interdisciplinary Center for Network Science and Applications at the University of Notre Dame, South Bend, Ind., has joined the Health Discovery Corporation's Science Advisory Board. Dr. Chawla is an expert in data mining and machine learning.

"The addition of Dr. Nitesh Chawla to our Science Advisory Board brings a major intellectual resource and additional expertise to our company," said Stephen D. Barnhill, M.D., Chairman and CEO of Health Discovery Corporation. "We're thrilled to have Dr. Chawla join our team of scientists," said Dr. Barnhill.

"Health Discovery Corporation has an impressive suite of techniques and applications in personalized medicine, and a highly prestigious Science Advisory Board. I am honored and humbled to become a part of it," said Dr. Chawla.

Dr. Chawla is a welcomed Member of HDC's Science Advisory Team which includes among others Kary Mullis, Ph.D., winner of the Nobel Prize for Chemistry (1993), Vladimir Vapnik, Ph.D., creator of Support Vector Machines and winner of the prestigious Humboldt Research Award-for his academic achievements-by the Alexander-on-Humboldt-Foundation, and Isabelle Guyon, Ph.D., co-inventor of the first patent for Support Vector Machines.

Please see <http://eon.businesswire.com/news/eon/20100225006180/en/HDC/SVM/health-discovery-corp> for the newsfeed source.

iCeNSA is a university wide interdisciplinary research center organized around network science problems in social, biological, biochemical, physical, environmental, organizational, technical and defense systems. More information about iCeNSA is at <http://icensa.nd.edu>.

## Blake Conducts New Computing Outreach

Professor **M. Brian Blake** is the PI of an NSF-sponsored research grant entitled "Popularizing Computing to the Mainstream". Through highly engaging and visually stimulating modules, the program attempts to recruit underrepresented minorities into computing fields from mainstream venues like shopping malls, sporting events, and community events. Although the project ran summer camps for students in 2007, 2008, and 2009, this summer and fall the program established a series of kiosks at shopping malls, community centers, and a large innovation convention, all in the Washington, DC area. More about this project and a video documentary can be viewed at <http://www.future-encoders.org/>