

2003-2004 Outstanding Seniors Announced

Each year CECS honors an outstanding senior in each major. The students are selected for their scholastic achievements, as well as their service to the College, the University, and the community. All of the Outstanding Seniors will be honored at the College Awards and Recognition Ceremony on June 11, 2004. In addition to the outstanding students, the College will also present awards to faculty. The faculty winners will be featured in the September issue of BITS & PCs. The Outstanding Students for the 2003-2004 academic year are:

Catherine Zelnio – Outstanding Student in Biomedical Engineering

In addition to having a 3.94 GPA and top-notch analytical abilities, Cayti has many leadership and extracurricular activities, including her work for the last four years on both our College's Wright Engineering Council and the Society of Women Engineers. She has been President of the Tau Beta Pi chapter for the last two years and participated for two years in the Dean's Leadership Seminar. She is currently finishing her senior design project, which involves the application and modification of a head-mounted display for use with vision testing of pre-school children. In addition, she is doing research using this device for the departmental honors thesis. She has done teaching and outreach service, including teaching and encouraging seventh grade girls as a research counselor in the Buckeye Women in Science and Engineering summer camp program, tutoring for calculus courses, and speaking to incoming

engineering students about how to be a successful student. She has also participated in research projects for the last two summers in the Air Force Research Lab Human Effectiveness Division at Wright-Patterson AFB. She has been accepted into the optometry program at The Ohio State University for the upcoming fall and has been awarded the prestigious Ohio Regents Professional Fellowship to attend.

Trunali Grissom – Outstanding Student in Computer Engineering

Trunali Grissom is a senior computer engineering student who joined Wright State University in the fall of 2000 and has a 3.83 GPA. She has worked as a tutor for math, chemistry, computer science, electrical engineering, and physics, and has also worked part-time as an inspector for a local company that makes firemen's bunker gear. She is married, and during fall and spring quarters she works and goes to school full-time. Trunali has worked at LexisNexis as a co-op student since the fall of 2002 and also has been the grader for Dr. Mateti's CEG 433 class. While working for LexisNexis, she applied for, and won, the Greater Dayton IT Alliance Scholarship for interns. She is a member of the Tau Beta Pi engineering honors society and ACM-IEEE, and she participated in the programming contest during the summer of 2003. Trunali has worked with Habitat for Humanity and participated in a volunteering service called LexisNexis Cares, teaching computer skills to seniors. Her employer has promised to pay her

tuition to graduate school if she stays with them upon graduation.

Aneta Zeppettella – Outstanding Student in Computer Science

Aneta Zeppettella was born in Szczecin, Poland and attended the University of Szczecin majoring in Education with a minor in Psychology. After graduating with honors, she moved to Warsaw, Poland and worked as an English-Polish interpreter for GTE International. When Aneta moved to the United States she realized the limited market value of her interpreting skills and enrolled in the WSU Computer

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College of
Engineering
and
Computer
Science
NEWS

June 2004
Volume 20, No. 8

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FACULTY FACTS

Below is a list of all new grants awarded within the College of Engineering and Computer Science, as well as other recent accomplishments by our faculty.

- Bourbakis, Nikolaos G. (ITRI)**
Secure Knowledge Management IIENGA
 The Wright Brothers Institute, Inc.
 4/1/04-5/31/05.....\$436,032
- Bourbakis, Nikolaos G. (ITRI)**
 spoke on *The IT-based Eye vs. the Bionic Eye* to the Physics Department on May 7, 2004.
- Grandhi, Ramana V. (MME)**
Simulation Based Research and Development Tools and Processes
 University of Dayton
 12/5/03-9/30/04.....\$40,000
- Hong, Lang (EE)**
Multirate Interacting Multiple Model Fusion
 MRLets Technologies
 7/1/02-6/30/05.....\$60,000
- Menart, James A. (MME)**
Continued Study of the Effects of Magnetic Fields on the Flow Field in a Mach 5 Wing Tunnel
 General Dynamics (formerly Veridian Engineering)
 3/1/04-9/30/04.....\$37,568
- Narayanan, Sundaram (BIE)**
Source Recommendation
 LexisNexis
 3/1/04-6/30/04.....\$15,000
- Narayanan, Sundaram (BIE)**
Fendley, Mary E. (BIE)
Model-Based Feedback for Simulator-Based
- Training in Network-Centric Operations*
 Sandia National Laboratories
 4/12/04-3/31/05.....\$10,010
- Narayanan, Sundaram (BIE)**
Kight, Amanda C. (BIE)
Diverse Data Fusion, Information Theory, and Evaluation Techniques
 Anteon Corporation
 10/1/03-9/15/04.....\$30,495
- Siferd, Raymond E. (EE)**
Broadband High Resolution Bandpass Delta Sigma Analog to Digital Converter
 Systran Federal Corporation
 4/18/03/4/17/05.....\$150,034
- Slater, Joseph C. (MME)**
Quantifying Uncertainty in Structural Response
 Anteon Corporation
 10/22/02-11/22/04.....\$40,350
- Wolf, J. Mitch (MME)**
Slater, Joseph C. (MME)
Power Extraction from a Gas Turbine Engine in Flight
 P.C. Krause and Associates
 4/9/04-12/24/05.....\$70,000
- Young, Henry Daniel (MME)**
Ceramic Fiber Heterostructures
 Ohio Space Grant Consortium
 1/1/04-12/31/04.....\$10,000

Hangartner awarded 'Distinguished' BME title for research



Dr. Thomas Hangartner

Dr. Thomas N. Hangartner has been named Distinguished Professor of Biomedical Engineering Research.

This title recognizes Dr. Hangartner's high performance in biomedical

research as recognized by the Board of Trustees, Dean Brandeberry, the provost and the President of the University.

In qualification for this title, Dr. Hangartner has maintained a research program with expenditures totaling over \$4.3 million and has supported 49 quarters of graduate research assistants.

He received the Presidential Award for Faculty Excellence in Research in 1995, as well as the Brage Golding Distinguished Research Professor award for 2001-2004.

Dean Brandeberry named NSPE Fellow



Dr. James Brandeberry, Ph.D., P.E.

Dean Brandeberry has been named a National Society of Professional Engineers Fellow Member. NSPE established the Fellow recognition program to honor those active NSPE members who have demonstrated exemplary service to the engineering profession, the Society and the community.

Dr. Brandeberry has served NSPE as Chair of the Professional Engineers in Education Division, as a member of the Board of Governors of the Sustaining Universities Program and as Vice President. He has also served as an engineering consultant for numerous companies, as well as president of his own company, Simulation Technology Inc.

Graduating with a Ph.D. from Marquette University in 1969, Dr. Brandeberry began his career at Wright State as an Assistant Professor and Chair of the graduate program in Systems Engineering that same year. By 1986, he became the founding dean of the College of Engineering and Computer Science. As the longest standing engineering dean in Ohio, Dr. Brandeberry has brought in over \$1 million to the College through equipment and research-related grants he has authored or co-authored.

Dr. Brandeberry will receive recognition for being honored as a NSPE Fellow Member at a luau at Hale Koa at the NSPE Annual Convention in Honolulu, Hawaii on July 9.

'Mobile Computing' Grandhi honored by OSPE offered next fall

A new senior/graduate level course covering mobile computing will be offered during the fall quarter. CEG 499/699 provides an in-depth study of networking protocol and system design in the area of wireless networking and mobile computing. It will help students in the networking area establish a solid foundation in wireless networking protocols, fundamental concepts and principles.

It will also introduce students to a few hot topics in wireless networking and mobile computing research. The course will start with a review over fundamental design challenges, architectural principles and philosophy for the Internet and heterogeneous networks.

The focus will then move on to an in-depth examination of wireless networking protocols, and system design techniques for mobile computing environments. This is followed by several topical studies in wireless and mobile networking system design. The course material consists primarily of technical papers published on major networking conferences and journals, which will be posted on the web.

The course will be offered Mondays and Wednesdays during fall quarter at 8pm.

For more information, contact the Department of Computer Science and Engineering at (937) 775-5131 or stop in 303 Russ.



Dr. Ramana Grandhi

presented at the society's awards luncheon in Akron, Ohio on Saturday, May 15.

With 20 chapters throughout Ohio, OSPE is the state's leading organization of professional engineers. Each year they select one engineer from among their 3000 members to receive this award.

Dr. Richard Henry, P.E., president of the Dayton chapter of OSPE, nominated Dr. Grandhi for this honor. The award was given "in recognition of his teaching and professional expertise, selfless service to promoting excellence in engineering education, and for his dedication to the students of Wright State University and the engineering profession."

Since joining the Department of Mechanical and Materials Engineering in 1984, Dr. Grandhi has made tremendous contributions

The Ohio Society of Professional Engineers (OSPE) has selected Dr. Ramana Grandhi, to receive their 2004 Outstanding Engineering Educator Award. The award was

presented at the society's awards luncheon in Akron, Ohio on Saturday, May 15. Dr. Grandhi is currently directing the Ph.D. in Engineering program, which serves three departments within the College of Engineering and Computer Science. Dr. Grandhi's students consistently give him high marks for his teaching, with comments such as, "I found the course to be very challenging and educational," and "Dr. Grandhi was available all the time for consultation."

In addition to his regular classes, Dr. Grandhi has offered week-long short courses to engineers in government and industry. These courses give working engineers an opportunity to update their skills and create a valuable bridge between the University and the engineering community. He has also worked through the local chapter of the American Institute of Aeronautics and Astronautics to provide scholarships to local high school seniors to study engineering at local colleges.

Dr. Grandhi is an internationally recognized leader in the field of Multidisciplinary Design Optimization (MDO). At Wright State, he directs a group of 24 researchers, including Ph.D. candidates, master's candidates, and post-doctors. His research proposals have generated more than \$8 million in research grants for Wright State from such sponsors as the U.S. Air Force, the U.S. Navy, NASA, and Caterpillar, Inc.

Dr. Grandhi has received numerous awards for his teaching, research, and leadership, including The Brage Golding Distinguished Research Professor title and the Ralph R. Teetor Educational Award. He is currently a Distinguished Professor of Mechanical Engineering Research.

CECS professors awarded at annual Dayton IEEE awards banquet

On Sunday, April 25, 2004, the Dayton Section of IEEE held their annual awards banquet in the Wright State Student Union. At the banquet several CECS faculty received awards.

Dr. Raymond E. Siferd, from the Department of Electrical Engineering, received the Fritz Russ Bio-Engineering Award.

Dr. Ping He, from the Department of Biomedical, Industrial, and Human Factors Engineering, received the Harrell B. Noble Award.

Dr. Kuldip Rattan, from the Department of Electrical Engineering, received a special award for revitalizing the Student Chapter of IEEE at Wright State.

SKM Grant Extended

The Secure Knowledge Management grant has been extended for another year with additional funding of \$436,000 from the Wright Brothers Institute and AFRL. ITRI held an SKM-WCI workshop on April 27, 2004 where researchers presented talks and demos to WCI representatives.

Order of the Engineer Ring Ceremony



The Order of the Engineer (OOE) was established to promote professionalism among engineers and graduates of accredited

engineering programs. The College of Engineering and Computer Science holds two induction ceremonies each year, one at the end of fall quarter and one at the end of spring quarter.

The next induction ceremony will be held on **Friday, June 11, 2004 at 7:00 PM** in the Student Union Multipurpose Room. Engineering seniors graduating in June 2004 or August 2004, graduate students, alumni, and faculty are encouraged to register and participate.

We hope to see all upcoming graduates there.

BITs & PCs

College of Engineering and Computer Science
Wright State University



Dean

James E. Brandeberry, Ph.D., P.E.

Managing Editor

Jenny Garringer

Editor

Samantha Hundt

BITs & PCs is a monthly newsletter published by the College of Engineering and Computer Science to inform students about activities, news, opportunities and changes occurring in the College. It reports on the achievements of faculty and students; changes in organization, policy and curriculum; scholarship and employment opportunities; and engineering and computer science student club activities.

The current issue of *BITs & PCs* is available on the Web at <http://www.cs.wright.edu/bitsandpcs/>. Copies are also available in the College office, any Department office, literature rack in the Russ Center Atrium, Russ Center Study Lounge, or the Student Club Room.

The next issue of *BITs & PCs* will be published the week of September 1, 2004. To submit items for this issue, call the College of Engineering and Computer Science at (937) 775-5001, or send email to jgarring@cs.wright.edu by August 19, 2004. The College of Engineering and Computer Science reserves the right to edit all material for publication.

OUTSTANDING STUDENTS

continued from page 1

Science program in 2002. Focusing completely on academics, Aneta managed to maintain a 3.8 GPA. She also worked as a math tutor and was recruited as a Calculus Lab Assistant by the College of Science and Mathematics. In the future she would like to combine her liberal arts background with her knowledge of computing systems and work in the area of human-machine interface development. Aneta and her husband David are also volunteers for Labrador Retriever Rescue of Cincinnati fostering dogs and helping with fund raising activities.

Henry Griffith – Outstanding Student in Electrical Engineering

Henry was given a full tuition scholarship to attend Wright State University in 2001. In only three years at WSU, Henry was able to complete all the coursework in the Electrical Engineering program, using no AP or transfer credits toward his degree. During this time period, he has maintained a 4.0 GPA. Henry is Chair of the WSU branch of IEEE, as well as an active member of both Tau Beta Pi and Alpha Lambda Delta honor societies. Henry has performed research at the AFRL Sensors Directorate during his time at WSU. In 2002, he received both the Birden-Jordan and the Harry Jeffery scholarships for outstanding continuing studies at WSU. Griffith has also served as a Lab Instructor for the Calculus program for two years. Henry is heavily involved in the fitness programs here at WSU, where he has begun pursuing competitive bodybuilding. After completing his degree in June 2004, Henry plans to begin pursuing his doctoral degree in electrical engineering. He has been awarded full doctoral study fellowships through both NASA and DAGSI, and will be attending Wright State for his Ph.D.

Dean Brown – Outstanding Student in Engineering Physics

Dean has maintained a 4.0 GPA and has been on the Dean's List every quarter. In June 2003, he received the Student Research Program's Student Employee of the Year Award. Dean has been very active in Tau Beta Pi, Sigma Pi Sigma, Student Honors Association, and

Golden Key International Honour Society. He also participated in the Wright State Men's Chorale, Madrigal Singers, and Chamber Singers. He is currently the accompanist for the Way Off Broadway Theatre Co., a student run organization that he helped initiate. Dean has also participated in SOCHE's Student Research Program, working in both the polymer branch and agile filters branch of the Air Force Research Labs at WPAFB. He has combined this research with his senior project. Presentations of this project were given at the Wright State Honors Research Colloquium, a Physics Department seminar, and at the Great Lakes Photonics Symposium in Cleveland. In addition, Dean has been a contributor to two peer-reviewed publications, two proceedings, and five invited talks. Dean plans to get married this summer and expects to complete his B.S. in June 2005 with departmental honors and a Management Minor. He plans to enter University of Rochester's Institute of Optics in pursuit of a Ph.D. in Optics in the fall of 2005.

Kelly Loughlin – Outstanding Student in Industrial and Systems Engineering

Kelly has excelled in her academic work at Wright State, after transferring from Purdue University in 2002. She gained substantial industry experience during her time as a student, successfully applying her lessons from the classroom. At General Electric, where she interned in 2001 and 2002, she worked on several successful quality improvement projects utilizing Six Sigma techniques, and at Wright-Patterson Air Force Base in 2004 she interned as a crew systems engineer. Currently, she is a part-time Associate Human Factors Engineer for SRA International working in the areas of human performance in warfare and human factors support to intelligence systems. She will continue at SRA full-time after graduation. Kelly is currently a member of Tau Beta Pi and the Society of Women Engineers, and was active in the Human Factors and Ergonomics Society at Purdue.

Joshua James – Outstanding Student in Materials Engineering

Joshua came to Wright State as the Valedictorian of his graduating class at Tuscarawas Valley High School. He started

OUTSTANDING STUDENTS

his career at Wright State in the fall of 1999 as a direct admit to the Material Sciences Engineering program. Since that time he has worked hard and has achieved a GPA of 3.82 as an Honors student. He is a member of the Golden Key International Honors Society and the Phi Kappa Phi National Honors Society.

Joshua has a great deal of work experience in materials engineering. During spring quarter Joshua has participated in a co-op at the Air Force Research Laboratories as a student engineer. At this position he was involved with advanced composite systems, performed test protocol set-up, executed experimental tests, and collected and analyzed data. Before working at this co-op position, Joshua worked as a researcher for the Materials Directorate at Wright Patterson Air Force Base. Prior to this Joshua worked as a research assistant with Dr. Srinivasan in the Department of Materials Science and Engineering.

Greg Palm – Outstanding Student in Mechanical Engineering

Greg has been among the top academic performers in the Mechanical Engineering program throughout his undergraduate career at Wright State University, maintaining a cumulative grade point average of 3.83. In addition, Greg has participated in a variety of student organizations and professional societies, including the American Society of Mechanical Engineers, the Society of Tribologists and Lubrication Engineers, the Society of Automotive Engineers, The Golden Key Honor Society, the Phi Kappa Phi Honor Society, and the Tau Beta Pi Engineering Honor Society. Beyond his activities on campus, Greg has worked as a Student Researcher at the Materials and Manufacturing Directorate of the Air Force Research Laboratory, and has also worked as an Engineering Intern for the Ohio Department of Transportation. Following graduation from WSU, Greg will attend graduate school at The Ohio State University. Greg's outstanding academic achievements at WSU have earned him a full graduate fellowship under the NSF supported Integrative Graduate Education and Research Traineeships (IGERT) Program, which focuses on the development of micro/nano-manufacturing techniques for molecular engineering applications.

2004 Graduate Student Excellence Awards

The School of Graduate Studies recognizes the achievements of the individuals listed below by honoring them with the 2003 Graduate Student Excellence Awards.

These awards are based on nominations by faculty in the students' graduate program area. Criteria for the selection include superior academic achievement, noteworthy thesis work, and potential for significant contribution to their fields.

Master's Students

Balakrishna Cherukuri
Materials Science and Engineering

Oleg Shiryayev
Mechanical Engineering

Arun Inapakolla
Computer Engineering

Todd Rovito
Computer Science

Doctoral Students

Brad Bryant
Engineering Ph.D.

Gregory Kramer
Computer Science and
Engineering Ph.D.

College of Engineering
and Computer Science

Annual Recognition and Awards Ceremony

Friday, June 11, 2004

4:30 pm

Student Union

Multipurpose Room

Don't forget to join us as we honor outstanding students, faculty, and friends.

Reception immediately following the ceremony.

Please RSVP to
(937)775-5001
or email jgarring@cs.wright.edu.

CONGRATULATIONS

TO ALL OF OUR
OUTSTANDING
STUDENTS AND
FACULTY!

THANKS FOR
A GREAT YEAR!

GRADUATES

JUNE 2004

Hamdi Abdelbagi	BSEE	Michael James	BSME	Aadel Al-Jadda	MSBE
Laurence Akpan	BSBE	Jacqueline Jones	BSBE	Mark App	MSCS
Amantha Allen	BSBE	Matthew Judd	BSEE	Jose Astudillo	MSEE
Paul Anderson	BSCE	Joseph Juhasz	BSCE	Nathaniel Barnes	MSME
James Antisdell	BSCS	Hardik Lagad	BSCE	Salil Bhalerao	MSEE
David Arnold	BSME	Carmelo Lamancusa	BSBE	Aditya Bhambri	MSCS
Charity Arthur	BSME	Ted Langreck	BSCS	Steven Browning	MSCS
Emily Atkin	BSCS	Toni Larson	BSCE	Christopher Burneka	MSHF
Marc Barbieri	BSCS	Jeffrey Laubenthal	BSME	Jeremy Burns	MSEE
Gary Barker	BSEE	Adam Lenger	BSBE	John Busbee	MSEE
Kelly Barrett	BSBE	Kelly Loughlin	BSIS	Sowjanya Chava	MSCE
Joseph Beidelschies	BSCS	Scott Magoteaux	BSME	Shuk Choi	MSEE
Mats Bennett	BSBE	Muhi-el-deen Masoud	BSCS	Kevin Cleereman	MSCS
Robert Bever	BSCS	Sylvere Mbarusha	BSEE	Shantesh Dalal	MSEE
Bradley Billheimer	BSME	Benjamin McClurg	BSEE	Gauri Dandekar	MSCE
Andrew Blanford	BSBE	Ryan McGinnis	BSEE	Sreerupa Das	MSEE
Russell Block	BSCS	Jean Paul Mihigo	BSME	Saikrishna Dasari	MSCE
David Blubaugh	BSEE	Douglas Miller, Jr	BSME	Vishli Desai	MSEE
Roberta Borkowski	BSEE	Christopher Myers	BSME	Sauragh Deshpande	MSEE
Jason Boudi	BSCE	Ghesu Ndefru	BSCE	Shirin Deshpande	MSME
Nathan Bowers	BSCS	Meghan Newton	BSCS	Madhavi Doddi	MSEE
Nghi Bui	BSEE	Taiwo Ogunjobi	BSME	Christopher Evans	MSEE
Gregory Burnett	BSCE	Charity Oliver	BSME	David Gaya	MSEE
Andrew Collier	BSEE	Gregory Palm	BSME	Lakshmi Gullapalli	MSME
Marie Craig	BSBE	Ankit Patel	BSCE	Manohita Gurram	MSHF
Joseph Cunningham, Jr	BSBE	Brian Poling	BSEE	R. Benjamin Hartlage	MSHF
Wallace Cypher	BSME	Andrea Ramsey	BSME	Maryam Heidari	MSEE
Thomas Donaldson	BSME	Justin Rausch	BSME	Savio Heredia	MSEE
Gary Doss	BSEE	Jason Robinson	BSME	Chaitr Hiremath	MSHF
Christopher Downs	BSME	Richard Rose	BSCS	Badhrinath Jagannathan	MSEE
Jonathan Duke	BSCE	Rahel Rudd	BSBE	Ashwin Jayaraman	MSEE
Allen Dukes	BSCE	Anthony Sabatini	BSBE	Vivek Jeyasingh	MSME
Andrew Dwenger	BSME	Eric Schwaderer	BSCE	Jason Jones	MSME
Sherita Eberhardt	BSBE	Warner Scott, III	BSCS	Vijaya Jonnalagadda	MSCS
Chad Erisman	BSCE	Kristen Shiverdecker	BSME	Jonathan Kiner	MSCS
John Fedon	BSEE	Joshua Smith	BSEE	Rachel Kinsler	MSBE
Kelly Feirstine	BSME	Krystal Thomas	BSIS	Avinash Kolhe	MSEE
William Ford	BSEP	Andrea Thompson	BSIS	Sreeram Koneru	MSEE
Allison Gadd	BSBE	John Tobe	BSCS	Venkata Koppuravuri	MSEE
Hilary Gallagher	BSBE	Clifford Turner	BSEE	Vishwas Kulkarni	MSCE
David Gerschutz	BSME	Justin VanHorn	BSME	Rajeev Kumar	MSEE
Peter Gibbs	BSCE	Michael Varney	BSBE	Swaroop Kumble	MSEE
Walter Gibson, Jr	BSCS	Lindsay Walthall	BSME	Bhargav Kuntamukkala	MSME
Chanel Gilbert	BSCS	Christopher Ward	BSCS	Kevin Lawrence	MSEE
Robert Goad	BSEE	Christopher Werth	BSEE	Min Li	MSCS
Henry Griffith	BSEE	Nathan Woods	BSME	Pavan Lingamaneni	MSEE
Erin Hanlon	BSBE	Victor Zamora	BSEE	Somnath Lokesh	MSHF
Karen Heitkamp	BSIS	Catherine Zelnio	BSBE	Amit Mandhre	MSEE
Joan Henley	BSCE			Murali Mangamuri	MSCS
Ryan Hobbs	BSEE	Balasubramanian Abiramikumar	MSCS	Towsif Mannan	MSCS
Andrea Horstman	BSBE	Ali Ahmadi	MSCS	Ninad Mantri	MSBE
Adam Huwer	BSME	Nasif Ahmed	MSBE	Venkata Masina	MSEE
Joshua James	BSMA	Reshma Alex	MSCE	Karthik Mohanasundaram	MSCS

Please Note: This list is not binding. All names listed above are subject to degree certification before graduation is considered final.

Wright Engineering Council (WEC)



Shrikant Murali	MSEE
Balkrishna Nadkarni	MSHF
Vamsee Nallam	MSHF
Teodora Nedkova	MSMA
Robert Neuroth	MSEE
Harshit Nimak	MSEE
Ravindra Paike	MSEE
Anisha Parkar	MSBE
Wallace Parks	MSCS
Balaji Parthasapathy	MSME
Phanisree Pasumarthi	MSEE
Donald Peters	MSEE
Sadasivan Ponnuswamy	MSCS
Sadasivan Ponnuswamy	MSHF
Vijayanand Potumuthu	MSEE
Nisha Puthhur	MSCS
Shailesh Radhakrishnan	MSEE
John Raisbeck	MSME
Pushya Ramaswamy	MSCE
Soumya Ramaswamy	MSEE
Kranthi Ranjan Ravi	MSCE
Abhishek Rathi	MSEE
Dhanva Ravishankar	MSCS
Hidayat Rizvi	MSEE
Praharshin Senadeera	MSEE
Kunal Shah	MSCE
Arun Shankar	MSEE
Mayur Sheth	MSEE
Madhavi Shewale	MSEE
Sourashtra Singh	MSEE
Karthik Subramniam	MSEE
Seamus Sullivan	MSCS
Amit Tandel	MSEE
Yogaraja Thyagarajan	MSEE
Sandeep Umarani	MSEE
Gregory Updike	MSME
Anil Valevate	MSME
Murali Venigalla	MSEE
Akshay Vora	MSEE
Nikhil Wadwalkar	MSEE
Jenna Warman	MSHF
Kristopher Washington	MSHF
Robert Wnek	MSHF
Kim Wong	MSEE
Elizabeth Younger	MSHF
Eldo Zacharia	MSEE
Thomas Zesiger	MSEE
Xinhua Zhang	MSCS

James Adams	PH.D.
Bradley Bryant	PH.D.
Karl Gudmundsson	PH.D.
Timothy Hansell	PH.D.
Michael Patzek	PH.D.
William Roberts	PH.D.

Thanks to Director of Activities Todd Dobbmeyer for organizing **bowling** at Beaver Vue Lanes and **movie night** at Regal Cinemas.

WEC sent representative George Diehl to Zane Trace High School as part of the **Wright Track** program.

May Daze was a hit, highlighted by another successful **Car Smash**. Thanks to Thomas' Towing of Fairborn for supplying the car.

A **mentoring program** is currently in the works for fall quarter. Anyone interested in being a mentor can contact George Diehl at diehl.7@wright.edu.

WEC has had a **great year** and would like to thank all members, committees, and directors for all their hard work and dedication. We look forward to new and exciting events and activities in the coming school year.

Have a safe and happy summer!

American Society of Mechanical Engineers (ASME)



ASME would like to **congratulate** all the Mechanical and Materials Engineering students graduating in June. Best of luck in your future career

adventures!

ASME participated in the WEC-sponsored **Heifer International Fundraiser** on May 18 at Knights of Columbus Hall with speaker Tony Hall. Tony Hall is the United States Ambassador to the United Nations Committee on Food and Agriculture and 3 time nominee for the Nobel Peace Prize.

Construction was completed on our **Rowdy Raider statue** for the Rowdy 'Round Town project on May 28, 2004

ASME is looking for **officers** for the 2004-2005 academic year. If you are interested, please contact President Shawn Uhlenhake at uhlenhake.10@wright.edu, or contact the Chapter Advisor, Dr. Nathan Klingbeil, at nathan.klingbeil@wright.edu

Laboratory Access Policy Updated

Below is the updated version of the laboratory access policy for CECS.

Individuals who use or are responsible for the teaching and research laboratories located in the Russ Engineering Center must comply with the following rules which are applicable to all students, faculty and staff.

1. Laboratories are restricted for use by those individuals who are teaching, enrolled in a class that requires use of a laboratory, or who are conducting approved research under the direction of a College of Engineering and Computer Science faculty member. Individuals who enter a laboratory for any other reason may be asked to leave and are expected to comply with such a request. Individuals who fail to leave a lab upon request may be subject to legal and/or University disciplinary action.

2. Children (defined as people under 18 years of age who are not an employee or student of the university) are not be permitted in any laboratory without the expressed permission of a representative from the College of Engineering and Computer Science. Exceptions are children of university employees who are under the specific and continuous supervision of the employee or children who are attending a supervised activity approved by the college.

Approved by Dean Brandeberry, May 21, 2004

EMPLOYMENT OPPORTUNITIES

SOCHE Student Research Program

Research opportunities at Materials Lab and AFIT at WPAFB

Flexible work schedules, e.g., 12-14 hrs. wk. academic year & 40 hrs. wk. summer; full-time alternating terms; or 20 hrs. wk. year round - we will work with you!

Career related work experience - state-of-the-art labs

Earn while you learn (Soph. \$11.70 hr; Jr. \$13.15 hr; Sr. \$14.50 hr; Grad. \$17.90 hr; PhD \$21.60 hr)

Undergraduate to graduate students

Degree seeking students in good standing

Must be a U.S. Citizen

No experience necessary

The SOCHE Student Research Program is accepting applications for positions at WPAFB for the following majors:

Biomedical Engineering, Chemistry, Computer Science, Electrical Engineering, Materials Science, Mechanical Engineering, Math, and Physics.

SOCHE accepts applications on an on-going basis for current and future job openings. Below is a sample of the positions we offer.

SAMPLE PROJECTS

Reverse Engineering of Gene Networks.

Majors—Biomedical Engineering, Electrical Engineering, Mechanical Engineering (with strong math background)

This research responds to an Air Force need to understand toxicology at the cellular level. There is an ongoing research effort at AFRL in the area of toxicogenomics, which has been proposed to be a substantial part of the biotechnology research at AFRL in the future. One way to gain a better understanding of toxicology at the cellular level is to develop quantitative models of the cellular pathways involved with the cell's response to exposure to a toxic chemical. Models of various pathways and methods to determine the rate constants as well as other relevant parameters for models of pathways have recently appeared in the literature, but are not concerned with the particular pathways associated with the toxicology of hydrazine or cadmium, both of which are of interest to the

Air Force. This research effort is concerned with supporting the toxicogenomics work at AFRL through the development of models of one or more of the pathways associated with liver cell's exposure to hydrazine and/or cadmium and the development of methods to estimate the rate parameters in the models so as to obtain agreement with available genomic and proteomic data. The particular research of this effort is involved with the implementation and use of existing tools for extracting, analyzing and visualizing genomic data, with the modeling of intra-cellular pathways with systems of differential equations, and with the determination of the parameters associated with the system of differential equations by comparing the predictions of the models with existing experimental data.

DARPA AIM Phase Field Code Development

Majors - Computer Science, Materials Science, Mechanical Engineering

This involves writing, testing, and documenting and new methods in the codebase to (1) add new features as determined by AFRL scientists, (2) to add new functionality, and (3) improve reliability. The codebase itself is a mixture of legacy FORTRAN code and newer C code that uses several Application Programmer Interfaces to do mathematical computations, multimedia input and output, and xml input and output.

Nanoscope Surface Preparation and Sensor Materials Characterization

Majors - Physics, Chemistry, Materials Science

Description - Methods to influence the organization of atoms at the surface and interface of materials will be investigated. This work may include the deposition of materials, the operation of materials characterization equipment (X-ray, electron and/or ion spectroscopy, AFM, etc.) under the direction of senior engineers to determine the chemistry, morphology and/or structure of the deposited materials, as well as, the design or modification of software on lab automation or data reduction computer systems.

Atomistic and Continuum modeling of quantum dot structures

Majors - Physics, Electrical Engineering, Materials Science, Computer Science

Description - Perform finite element calculations to determine the minimum energy

shape of quantum dots as a function of dot volume, using commercially available finite element software. Repeat these calculations at the atomic level by performing molecular dynamics calculation using a valence force field (VFF) potential. Develop this molecular dynamics code in MATLAB.

Electromagnetic Simulation

Majors - Electrical Engineering, Physics, Math

Description - The student will help predict and characterize peak VHF radar cross section of targets on a dielectric ground as a function of target orientation and surface moisture. The student will develop computer code to form synthetic aperture radar (SAR) images from simulated data. The student will also compare radar images from predicted data to real world radar images in order to spot-validate prediction models. In addition, the student will characterize peak RCS as a function of target orientation for both simulated and real world radar images.

New Defenses Against Steganography

Major - Computer Science

Description - Steganography may be used to encode a hidden message in a digital image without apparent effects on the image. However, subtle effects are present, and they may be detected using new techniques based on optimal roughness and related metrics. This research will investigate these techniques for detecting, resisting, and otherwise defending against steganography and related information warfare attacks, and it will evaluate their effectiveness relative to existing methods. Specific tasks include the following (1) acquire a database of images that contain steganographic messages with various known encodings, (2) develop candidate procedures that employ optimal roughness and related metrics to detect steganographic encoding or to prophylactically resist such encoding, and (3) evaluate the effectiveness and robustness of the optimal roughness techniques relative to existing methods.

Submit:

**SOCHE Application
(available at www.soche.org)
Resume &
Transcript/Advising Report**

**For more information
Call 937-258-8894**

SCHOLARSHIPS & FELLOWSHIPS

SAE and SCCA

continue autocrosses in Lot 4

The student section of the Society of Automotive Engineers (SAE) will host nine autocrosses in Lot 4.

Autocross is a form of competition; a sport of maneuvering a car through a series of pylons delineating a defined course. The object is to maneuver your car through the course in minimum time. Only one car is allowed on the course at a time.

Drivers range from no experience to professional and vehicles range from regular cars and trucks to special vehicles designed specifically for autocross. The vehicles are separated into different classes for the event. This is a chance to test and improve your driving skills.

The Western Ohio Region of the Sports Car Club of America (SCCA) will run the autocrosses, to be held on Sundays – June 13, July 25, August 22, September 19, and October 17. Registration is required for drivers and spectators. The approximate cost of driver registration will be \$20 for SCCA members and \$25 for non-members.

A typical schedule of events would include registration, safety instructions, technical inspection, drivers meeting, and the running of each class.

For safety, Campus Police will be at the autocrosses. Fairborn Fire, Rescue, and EMT will be on call. Alcohol is prohibited at autocrosses.

For more details visit www.worscca.org, and look for SOLO II and schedule. Drivers can also register in advance on the website.

For information within CECS, contact Jason Kremer, Justin Rausch, Greg Wilt, or Professor Hannen in room 022 Russ, or at 775-7183.

Described below are scholarship and fellowship programs available to CECS students

The US Navy is looking for bright, well-rounded engineers to participate in its *Nuclear Propulsion Officer Candidate* (NUPOC) program. Those interested may apply as early as the second semester of their sophomore year, and as late as post-graduation, and must attend a personal interview with a Navy Admiral. Accepted applicants will train to be officers and leaders on-board the Navy's nuclear carriers and submarines. Benefits include:

- \$10,000 signing bonus
- Military pay while you complete your education at WSU
- Competitive salary with guaranteed pay increases as you advance in rank
- Full medical and dental insurance
- 30 days paid vacation per year
- Postgraduate education opportunities

In addition to the NUPOC program, the Navy is also offering positions for qualified individuals teaching at the Nuclear Power School in Charleston, SC. Participants would be commissioned officers in the US Navy, with no sea duty obligation. For information please contact Lieutenant, junior grade, Teri Lawson at 800-553-1146 ext. 127.

The **Associated General Contractors of Ohio Education Foundation** currently has several scholarships available geared toward students pursuing construction-related degrees. All students applying must be U.S. citizens, have a 2.5 GPA (out of 4.0) and be an undergraduate in at least the second year of a construction related degree program during the 2004-2005 academic year. For applications and more information on the many scholarships available through this program, please visit www.agcohoio.com

The **Naval Research Laboratory (NRL)** sponsors a postdoctoral fellowship program that is designed to increase the participation of highly trained scientists and engineers in scientific and technical areas of interest in the Navy. Scientists and engineers at participating naval laboratories help shape and execute the programs that support Naval Forces in their future operational needs. Competitive stipends based on experience are offered.

Relocation and travel allowances along with a comprehensive benefits package including health, life, and disability insurance are also offered. All applicants must be U.S. citizens or permanent residents, or must hold a green card. Permanent resident status eligibility for fellowship positions may vary with each laboratory. Before appointment, each participant must present evidence of having received a Ph.D. or equivalent degree. The applicant must submit a 5-10 page research proposal that relates to a specific research opportunity. Applications are accepted on an ongoing basis. For application material and detailed information, visit:

www.asee.org/nrl.

The **American Public Power Association (APPA)** awards student research grants and internships each year as a part of its Demonstration of Energy-Efficient Developments (DEED) Program. APPA is the service organization for the nation's community-owned, not-for-profit electric utilities. DEED is APPA's program of research and development to encourage activities that promote energy innovation and efficiency. Ten \$4,000 student research grants/internships are awarded to students to conduct research on a project approved by a sponsoring DEED member utility. Upon completion of the project students are expected to submit a final report and abstract of the project to the APPA. Projects can be performed in conjunction with a utility program or can be part of the student's curriculum requirements. The deadline for this grant is July 14, 2004. DEED also awards one Technical Design Project each year intended to promote the involvement of students studying in energy-related disciplines and geared towards engineering students. Students are expected to complete a project approved by their academic advisor and submit a final report and abstract of the project to the APPA. This scholarship is for \$5,000, plus travel expenses (up to \$3,000) to present the project at APPA's Engineering and Operations Technical Conference (E&O) held each spring. The deadline for this scholarship is October 15, 2004. For more information for either of these opportunities and for applications, visit DEED's website at:

<http://www.appanet.org/DEED/>.

FE Exam deadline approaches

The next Fundamentals of Engineering (FE) Exam will be offered on Saturday, October 30, 2004.

To qualify as a graduating student for the NCEES exam, you must be currently enrolled in one of the WSU engineering degree programs and plan to graduate by April 16, 2005.

The application, application fee of \$25.00, and Dean's letter must be mailed to the Ohio Engineers and Surveyors Board in Columbus and postmarked no later than July 30, 2004.

Please contact Dick Rathbun, in 405 RC to obtain the Dean's letter and see Jenny Garringer, also in 405 RC, to have a photo taken for the application.

More information is available at:
www.ohiopeps.org/exams/students.html

Recruiting Day For Engineering, Computer Science and MIS students

Thursday, July 22, 2004
1:00pm to 4:00pm
Russ Engineering Center
Atrium

If you are looking for full time employment or are interested in a co-op position during the Fall or Winter Quarter, the Recruiting Day is just right for you.

Approximately 30 companies will have tables set up in the atrium.

In order to participate in the recruiting day, you must be registered with Career Services.

For more information, contact Kim Gilliam in Career Services at (937) 775-2556. A complete company listing will be available on their website at:

<http://career.wright.edu>

Important Dates

June 5	Last day of spring classes
June 7-11	Final examinations
June 11	CECS Awards Ceremony – 4:30 pm Order of the Engineer Ring Ceremony – 7:00 pm
June 12	Spring Commencement
June 14	First day of A and C term classes
July 15	Last day of A term classes
July 19	First day of B term classes
August 19	Last day of B and C term classes
August 21	Last day to apply for December graduation
September 6	UNIVERSITY CLOSED Labor Day
September 7	First day of fall classes

Office of the Dean

3640 Colonel Glenn Hwy.
Dayton, OH 45435-0001
College of Engineering and Computer Science

WRIGHT STATE
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