



BITS & PCs

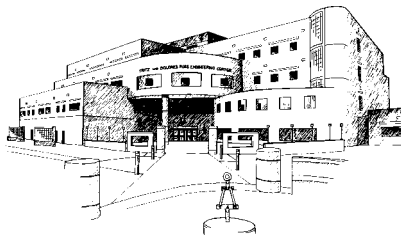
COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

June 2001 Wright State University Dayton, Ohio 45435 Vol. 17 No. 9

Important Dates

- June 8
 - ~ CECS Recognition and Awards Ceremony
 - ~ Order of the Engineer
- June 9
 - Spring Commencement
- June 11
 - First day of class, Terms "A" and "C"
- June 19
 - Last day to drop "A" class without a grade
- June 28
 - Last day to drop "C" class without a grade
- July 4
 - NO CLASSES, Independence Day
- July 12
 - Last day of classes, Term "A"
- July 16
 - First day of class, Term "B"
- July 24
 - Last day to drop "B" class without a grade
- August 16
 - Last day of classes, Terms "B" and "C"
- August 21
 - Last day to apply for December graduation
- September 3
 - UNIVERSITY CLOSED, Labor Day
- September 10
 - First day of classes, Fall Quarter

2000-2001 Outstanding Student Awards Presented



Each year the College honors its outstanding undergraduate students in each of the engineering and computer science majors. These students are selected for their scholastic achievements, as well as their service to the College, the University, and the community. This year, there is a tie between two Biomedical Engineering students, and the Engineering Physics and Materials Science and Engineering majors did not have any candidates. This year's winners include:

Joyce Bevington — Biomedical Engineering

Joyce has achieved a cumulative grade point average of 4.0 in the pre-med track of our Biomedical Engineering program. While at Wright State, she has received several honors, including participation in the Engineering Leadership Institute, an Ohio Space Grant Consortium Fellowship, Phi Kappa Phi and the Golden Key National Honors Society. In addition, she was elected to the Tau Beta Pi engineering honor society in her junior year, the earliest time possible. She has worked as a research assistant in the Department of Biochemistry and Molecular Biology and has also volunteered with the American Red Cross and the Samaritan Hospital's Emergency Room.

Joseph Blake — Biomedical Engineering

Joseph has also achieved a cumulative grade point average of 4.0 in the pre-med track of our Biomedical Engineering program. He has done undergraduate research which has resulted in a publication entitled "Diffusion of Paramagnetically Labeled Proteins in Cartilage: Enhancement of the 1-D NMR Imaging Technique", which he co-authored with Professor Brent Foy. This article appeared in the Journal of Magnetic Resonance in 2001. In addition, he was elected to the Tau Beta Pi engineering honor society during his junior which is the earliest time possible for induction. Joseph plans to attend medical school at The Ohio State University College of Medicine and Public Health. His hobbies include indoor soccer, racquetball and spending time with his family.

Continued on Page 2

Outstanding Student Awards continued

Christopher Sielski — Computer Engineering

Christopher Sielski entered the Department of Computer Science and Engineering at Wright State University in the Fall of 1999 to pursue a second undergraduate degree. He received his Bachelor's degree in Agriculture and Life Sciences from Cornell University in May of 1992. He completed over 30 hours of work in psychology at Wright State prior to entering the Computer Engineering program, achieving a 4.0 grade point average for those courses. In his computer engineering program, he has continued to maintain his perfect 4.0 GPA while taking advanced courses in operating systems, networking and software engineering.

Joshua Kennel — Computer Science

Joshua Kennel entered the Department of Computer Science and Engineering in the Fall of 1999 to pursue his second undergraduate degree. In his program, he completed his general education and computer science courses while attaining a perfect 4.0 grade point average. During the last year of his studies, he also worked as a co-op student at the Southwestern Ohio Council for Higher Education (SOCHE). Josh has not only excelled in the classroom, but has excelled in research also. During the Summer and Fall of 2000, he was a part of a research team in the Intelligent Systems Laboratory in the Department of Computer Science and Engineering, where he worked on a facial animation project funded by the National Science Foundation. The software he developed is currently being used to capture audio-visual data for analysis by other members of the research team. He is very easy to work with and his work is of the highest quality.

Simon Josef Tritschler — Electrical Engineering

Joe Tritschler has held an active interest in electronics virtually his entire life. Although he considers himself a musician first and an engineer second, his fascination with reproduced sound necessitated a direct involvement with the equipment fairly early. His father, Tony Tritschler, also an engineer, taught him enough basics to get started tinkering with vacuum tube guitar amplifiers, which later developed into an affinity for heavily customized high-fidelity audio equipment.

When Joe is not busy conducting his latest hi-fi audio experiments, you will most likely find him singing and playing guitar in his rockabilly band, Crazy Joe and the Mad River Outlaws, or shooting his potato cannon near his parents' house in Enon, Ohio. He is eager to begin work on his Master's degree in Electrical Engineering in the fall, focusing on high-resolution/high-fidelity audio reproduction.

Jennifer Stowe — Human Factors Engineering

Jennifer's accomplishments at Wright State University include being awarded the Hewitt Scholarship, Anthony J. Cacioppo Memorial Scholarship, and the Dan Graves Association of Old Crows Kittyhawk Chapter Scholarship. Jennifer is a member of the Society of Women Engineers and serves as treasurer. She is also a member of the Golden Key National Honor Society and Alpha Lambda Delta. In addition to her academic achievements, Jennifer is also an accomplished dancer for which she has received numerous awards. She was Captain of Wright State's Dance Team and head dance instructor for the Junior Raider Program, which teaches children to dance. In addition, Jennifer assisted with the half-time show of the 2000 Orange Bowl.

Amanda Campbell — Industrial and Systems Engineering

Amanda is an outstanding student whose accomplishments at Wright State University include the National Commended Performance, Ohio Academic, and Honors Scholarships. Amanda has served as a member of the Student Advisory Board and on the Society of Women Engineers, Region G, 2000 Conference Committee. She is also a member of the Institute of Industrial Engineers, the Tau Beta Pi engineering honor society, as well as the Golden Key and Alpha Lambda Delta honor societies. In her spare time, Amanda enjoys running in marathons.

Lawrence Thomas — Mechanical Engineering

Lawrence has continued the academic excellence he established at Xenia High School where he was valedictorian in 1997. At Wright State he has performed equally as well and he will graduate

tomorrow with a cumulative GPA of 3.92.

Through his hard work and academic achievements, Lawrence has enjoyed scholarship support from Wright State and other sources throughout his academic career. He has held the Valedictorian Scholarship, the Mechanical Engineering Merit Scholarship, the Ohio Space Grant Consortium Scholarship, and the Rocky Thomas Sertoma Scholarship. Lawrence is a member of the Golden Key National Honor Society and also a member of the American Society of Mechanical Engineers.

While at WSU, Lawrence has been involved in an innovative and exciting new Multi-University Senior Design Program. This program utilizes students from Wright State, Ohio State, and Sinclair Community College. The team is developing a robotic arm to be used by quadriplegics to make their life easier. He has been a key member on the diverse team and is helping to make this new program a success.

In addition to a challenging design project at school, Lawrence is also working part-time at Delphi Harrison Thermal Systems. He has assisted with production part approval processes and created templates for Delphi engineers to follow. He has created quality forms and plant-wide standards, performed residual torque studies on product joints that determine the relationship between dynamic and static torques, developed standard training aids for training operators in the assembly room, and reorganized, updated, and prioritized process failure modes and effects analysis.

Prior to working at Delphi, Lawrence worked at Valeo, Inc. and the Fatigue and Fracture Lab at Wright Patterson Air Force Base. At Valeo, Lawrence performed validation studies on blower motor controllers and windshield wiper motor controllers. At WPAFB, Lawrence designed a load-controlled riveter, performed fatigue tests on different joint configurations, and performed high temperature tensile tests on ceramic and titanium matrix composite specimens.

Lawrence truly is an excellent student, engineer, and person and the Department of Mechanical and Materials Engineering is honored to have him as their outstanding senior.

***Congratulations
to all of these
Outstanding Students!***

***The
Dayton Chapter
of the
Ohio Contractors Association
invites you to participate
in their annual
Constructor For A Day
Program***

**September 27th
8:00 AM**

The day will include site tours of heavy and highway construction projects in the greater Dayton area, as well as a visit to a working asphalt or concrete plant and an engineering/design consulting firm.

The day will conclude with dinner at the monthly business meeting, which usually ends around 9:00 PM.

Many OCA members will be seeking interns and co-op students in addition to full-time employees.

This program offers students an opportunity to view real-life applications of their classroom studies as well as the chance to meet potential employers.

For more information, please contact

Mindy Evans at (937) 222-8359

or

Darin Johnson at (937) 492-0027

The SOCHE Student Research Program has several positions for undergraduate and graduate students available in the Materials Lab at WPAFB. They offer flexible work schedules, career related work experience in their state-of-the-art labs and competitive wages (Soph. \$10.40/hr; Jr. \$11.65/hr; Sr. \$13.00/hr; Grad. \$15.90/hr). Applicants must be degree seeking students in good standing with U.S. citizenship. Positions available include the following:

Project No. 209 - Degradation Studies of Conductive Elastomers

Major: Chemistry, Chem. Engineering, Physics, Mat. Sci.
 Description: The work required in this task involves hands-on, in-house research and development in conductive elastomer materials performance degradation phenomenon and new materials development. The work may include thermal analysis (DTA, DSC, DMA), chemical analysis (FTIR, Raman, etc.), surface chemical analysis (XPS), analysis of the effects of various environmental exposure effects (humidity, aircraft fluids), curing studies, development of novel methodologies for conductivity testing, and a variety of mechanical properties studies directed to elucidate performance and failure mechanisms. These studies will be conducted in concert with both government and contractor researchers.

Project No. 243B - Wear Resistant Material: Processing and Development

Major: Chem. Engineering, Materials Science
 Description: To investigate the process development of solid state tribomaterials (in thin film form) grown by plasma deposition processes including laser deposition, magnetron sputter deposition, and ion beam assisted deposition. To investigate the synthesis structure/property relationships of quasicrystalline materials, nanostructured composites, and nanocomposite films. To optimize improved coatings and bulk composites for extreme environment (e.g., vacuum, high and low temperature, moisture).

Project No. 251 - Dynamic Flight Simulator Assessment

Major: Mechanical, Electrical, Biomedical Engineering
 Description: This research will use computer simulation to predict pilot response in a novel

centrifuge configuration operated as a motion-based flight simulator.

Project No. 253 - Characterization of Mechanical Behavior of Advanced Materials

Major: Materials Science, Mechanical Engineering
 Description: The focus of this research is to develop the life prediction methodology of advanced materials, such as titanium alloys, ceramics, matrix and metal matrix composites including investigation of damage mechanisms under various mechanical and thermal loads, as well as to understand the fretting fatigue and related cracking issues of high temperature titanium alloys when subjected to high cycle fatigues using experiments and mathematical model techniques.

Project No. 262A - Photorefractive Materials Development and Characterization

Major: Electrical Engineering, Physics
 Description: Perform research in the photorefractive laboratory located in the LHMEEL facility. The work consists of devising, setting up, and performing optical characterization of a variety of samples including photorefractive crystals and fibers. The researcher is expected to learn the necessary programming skills to facilitate automated data acquisition and is expected to become proficient in the handling and preparation of optical quality fibers from crude materials.

Project No. 283 - HCF and Near-Threshold Crack Growth Behavior of Turbine Engine Materials

Major: Mechanical Engineering, Materials Science
 Description: Experiments will be conducted on titanium and single crystal nickel base superalloys under HCF and mixed-mode loading utilizing a wide range of loading configurations. Data will be collected and analyzed to determine stress states and criteria for crack initiation and extension.

Interested students can get an application via the SOCHE website at: <http://www.soche.org>. Applications must be submitted with a resume and transcript. For more information, call (937) 910-5808.

FACULTY

A C T S

Abdul Awwal, Ph.D., CSE, will be serving as the Conference Chair for the SPIE Conference on photonic devices and algorithms for Computing III, to be held in July 2001 in San Diego, California. Dr. Awwal is also serving as a chair for SPIE's International ITCOM 2001 Conference on "Optical and Passive Components for WDM Communications" which will be held in August 2001 in Denver, Colorado.

Oscar Garcia, Ph.D., CSE, presented a one and a half hour webcast to the Healthcare Information Systems Society. This professional national society provided continuing education credits to participants in this webcast. Dr. Garcia's presentation was on "Bioinformatics and Healthcare" and covered the different aspects of the recent DNA and molecular biology discoveries to information technology advances in shaping the future of personalized healthcare and rational drug design.

Lang Hong, Ph.D., EE, has received additional funding from Automotive Systems Laboratory in the amount of \$33,750 for his proposal entitled "Automotive Collision Avoidance Systems."

Richard Koubek, Ph.D., BIE, has received funding in the amount of \$29,667 from the U.S. Department of Transportation and the Federal Aviation Administration for his proposal entitled "Controller Pilot Data Link Communications (CPDLC) Program."

2001 Graduate Student Excellence Awards

The School of Graduate Studies recognizes the achievements of the individuals listed below by honoring them with the 2001 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

David Clark	Mechanical Egr.
Haritha Eathara	Computer Egr.
Bryan Jones	Biomedical Egr.
Pratik Joshi	Mat. Sci. and Egr.
Aaron Knapp	Computer Science
Mary Wesler	Human Factors Egr.

DOCTORAL STUDENTS

Brad Bryant	Engineering Ph.D.
Janeen Hammond	Engineering Ph.D.
Xuejun Liang	CS & Egr. Ph.D.

GRADUATE COUNCIL SCHOLAR

David Paoletti	CS & Egr. Ph.D.
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Congratulations!!

SCHOLARSHIPS AND FELLOWSHIPS

The U.S. Air Force Bioenvironmental Engineering Scholarship Program is offering full-tuition scholarships for seniors and graduates students within one year of graduation. The Air Force will also reimburse for textbooks and other supplies as well as supply the recipients with a monthly stipend of over \$1,000. Recipients are guaranteed employment for three years as a Bioenvironmental Engineer after graduation. U.S. citizenship is required.

For more information, contact:

TSgt Ed Lackey
2940 Presidential Drive, Suite 160
Fairborn, OH 45324-6210
Email: ed.lackey@rs.af.mil

The International Thermal Spray Association (ITSA) is accepting applications for undergraduate and graduate scholarships. Since 1992, the ITSA Scholarship Program has contributed to the growth of the thermal spray community, especially the development of new technologists and engineers. The criteria for each scholarship is listed below.

\$1,500 Graduate Student Scholarship


- Student must be actively pursuing a post-graduate degree in thermal spray processes or materials at an accredited university.
- Student must have at least one more year left in studies.
- Student must be recommended by a professor of the university the student is attending.
- Student must be recommended by at least one industrial source.
- Student's financial need must be verified by professor.
- Student must have a GPA of 3.0 or better.
- Via letter, student must present his/her interest in pursuing a career in thermal spray (2 page min.)
- Student must present 2 letters of recommendation from his/her instructors.
- Student must include completed application form (Available from www.thermalspray.org).
- All paperwork must be received May 1 through July 15.

\$500 Undergraduate Student Scholarship

- Student must be actively pursuing a undergraduate studies in metallurgy, metallurgical engineering or materials science and engineering, or ceramics engineering at an accredited university.
- Student must have at least one more year left in studies.
- Student must be recommended by a professor of the university the student is attending.
- Student must have a GPA of 3.0 or better.
- Via letter, student must present his/her interest in pursuing a career in thermal spray (2 page min.)
- Student must present one letter of recommendation from his/her instructors.
- Student must include completed application form (Available from www.thermalspray.org).
- All paperwork must be received November 1 through December 15.

For more information, contact:
Mr. John Read at johnr@nationalcoating.com

Applications should be sent to:
Mr. John Read
ITSA Scholarship and Awards Chairman
c/o National Coating Technologies
1975 Logan Avenue
Winnipeg, Manitoba R2R 0H8 Canada

BITs & PCs College of Engineering and Computer Science Wright State University 	
Dean James E. Brandeberry, Ph.D., P.E.	Editor Jenny Garringer
<p><i>BITs & PCs</i> 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.</p> <p>The current issue of <i>BITs & PCs</i> is available on the Web at http://www.cs.wright.edu/bitsandpcs/. Copies are also available in the College office, any Department office, literature racks in the Russ Center Atrium, Russ Center Study Lounge, or the Student Club Room.</p> <p>The next issue of <i>BITs & PCs</i> will be published the week of September 3, 2001. To submit items for this issue, call the College of Engineering and Computer Science at (937) 775-5001, or send email to jgarringer@cs.wright.edu by August 20, 2001. The College of Engineering and Computer Science reserves the right to edit all material for publication.</p>	

*College of Engineering
and Computer Science
Annual Recognition and
Awards Ceremony*

Friday, June 8, 2001

4:30 PM

*Student Union
Multipurpose Room*

*Join us as we honor outstand-
ing students, faculty, staff, and
friends.*

Reception immediately following the ceremony.

*The
Order of the Engineer
Steel Ring Ceremony*

Friday, June 8, 2001

7:00 PM

*Student Union
Multipurpose Room*

*Reception immediately
following the ceremony.*



Office of the Dean

College of Engineering and Computer Science
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