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SCHOOL OF TECHNOLOGY NEWSLETTER

INFOTECH

CENTRAL CONNECTICUT STATE UNIVERSITY

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First Engineering Program at CCSU and Within the CSU System

Approximately two years ago, the Engineering Technology Department performed a study on the feasibility of having a new Mechanical Engineering Program at CCSU. This initial investigation not only suggested program feasibility but also indicated that it was incumbent upon the Connecticut State University system to pursue it, in response to the needs of the State. Multiple workforce projections indicate a strong need for mechanical engineering graduates nationally and in Connecticut. According to the Connecticut Department of Labor statistics¹ the need is acutely pronounced in the Capital Region where it is exceeded only by the local demands for aerospace engineers. The proposal for an accredited program in mechanical engineering at CCSU is designed to serve the state and the region by providing a quality engineering education that develops the specialized knowledge and experiences required for graduates to practice as professional mechanical engineers.

The proposed CCSU undergraduate program leading to a Bachelor of Science in Mechanical Engineering (BSME) is designed with two additional specializations or options. Through appropriate choice of electives, students can opt for specializing in aerospace or manufacturing engineering. These curriculum options, contained within the general degree, offer a combination which is unique in Connecticut. The manufacturing specialization is based upon the School of Technology's strength in

this field and the aerospace specialization helps fulfill the regional requirements of industry. A specialization allows students to tailor the program to meet individual goals or interests, as well as, to address the changing needs of the industrial employers.

The program was approved by the University Curriculum Committee, the Faculty Senate, the CCSU President, and ultimately endorsed by the CSU System Office. The curriculum represents a solid and rigorous analytical major with the added benefit of a significant amount of hands-on laboratory coursework. Nationwide, engineering programs are often assessed as being highly analytical and lacking relevant application skills. Since the strength within the School of Technology is the significant percentage of laboratory-based coursework with hands-on experiential learning, the mechanical engineering curriculum incorporates considerable applied knowledge-based and experimental student activities. In addition to the basic chemistry and physics laboratory courses, the mechanical engineering program includes laboratory components in computer-aided design and integrated manufacture, manufacturing engineering processes, principles of computer numerical control, materials analysis, fluid mechanics, and instrumentation. Of particular note is the two-term senior capstone calling for research and then the

design project aimed at providing graduates with a significant initial engineering research endeavor. Also called for in the program will be proof of 400 hours professional experience which can be fulfilled by a cooperative assignment or a summer industrial position in the field.

Students with academic ability in mathematics and sciences, and possessing interest in how and why things work are prime candidates for this engineering program. These may be high school students desiring to pursue university studies on a full-time basis, or industry personnel interested in career advancement pursuing a mechanical engineering degree on a part-time or evening basis. Critical and logical thinking for problem solving is integrated within the coursework, which is combined with analytical and communication skills in the two-term capstone experience.

The application for licensure was prepared concurrent with the University review process this past Fall term with significant contributions from ET Professors Gates, Al-Masoud, Baumann, and Lema. The package now awaits recommendation from the Department of Higher Education. If licensure is approved by the Department of Higher Education, the School of Technology is prepared to offer the program in the Fall of 2006. Interested personnel may contact the Engineering Technology Department for additional information.

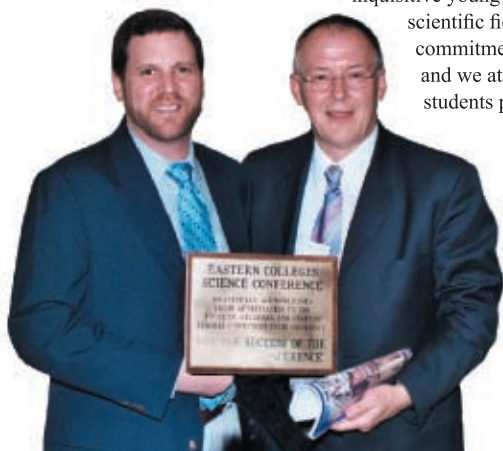
CCSU hosts the 59th Eastern Colleges Science Conference

Central Connecticut State University welcomed more than 300 students and faculty from 20 colleges to the 59th Annual Eastern Colleges Science Conference on Saturday, April 9, 2005. "Central is proud to be the host – for the third time in nearly six decades – of such a wide-ranging conference, with participants from a wide mix of academic environments," said Dr. Thomas R. King of the Biomolecular Sciences Department. "This gathering of keen and inquisitive young minds presented work from a broad spectrum of scientific fields. All conference participants share a strong commitment to the importance of undergraduate research, and we at CCSU are excited by what our guests and our students presented as the fruits of their intellectual labors."

The first Eastern Colleges Science Conference (ECSC) was organized in 1947 by an undergraduate at Vassar College in Poughkeepsie, NY. The aim then, as now, was to stimulate interest in undergraduate research in the sciences and related fields and to provide a lively forum for the presentation of research papers. Over the years, interest in the conference has increased and over 50 colleges and universities have attended this annual event. Participating institutions include Georgetown, Fordham, Pennsylvania State, Seton Hall, Temple, U.S. Naval Academy at Annapolis,

and Yale. CCSU hosted the conference in 1993 and 1997. The range of subject matter covered in the conference has also increased to include computer sciences, the behavioral and social sciences, as well as biology, chemistry, mathematics, physics and engineering.

"Undergraduate research allows a professor and student to work one-on-one on a specialized topic within the discipline," says Dr. James Mulrooney of the Biomolecular Sciences Department, who co-chaired the conference along with King and Dr. Robert Troy, Interim Associate Vice President for Academic Affairs at CCSU. "Research opportunities for undergraduate students are essential for the professional growth of these students and the ECSC provides an avenue for undergraduate students to make professional presentations on their research to their peers, mentors, and faculty from other colleges and universities. The ECSC is a forum for students from different universities and colleges to meet and discuss their research projects with one another. This parallels the scientific community as scientists interact with one another at professional meetings. All undergraduate students in Biomolecular Sciences are required to spend at least two semesters working one-on-one with a faculty member on a research project. Hosting the ECSC at Central Connecticut is another affirmation of our faculty's commitment to including undergraduate students in the pursuit of new discoveries in the molecular life sciences."





DEANS' CORNER

Dr. Zdzislaw B.
KREMENS

It was definitely another successful year for the School of Technology. We encountered the sixth consecutive year of a growing enrollment, and we became the second largest school of technology/engineering in Connecticut.

Before I elaborate on the challenges ahead of us regarding our student population, I would like to address just one of the many accomplishments of the past year, namely our new engineering program.

As a public institution, it is our mission to respond to vital workforce needs of the State. One of our strategic goals is to develop new programs after careful analysis of Connecticut's needs and global trends. In speaking about statistics, it is a well-documented fact that Connecticut employs 1.7 percent of the nation's engineering workers, but generates only 0.8 percent of the country's engineering graduates. This is a critical weakness, as Connecticut's economy continues to grow in the direction of a knowledge economy. With the strong support of our Math and Sciences departments, our very highly-qualified faculty has developed a top-quality Mechanical Engineering program connected to local industries. As I write this text, the application is undergoing methodical evaluation of the Department of Higher Education. When it is finally approved, the BS Mechanical Engineering program will be a significant milestone in fulfilling our vision of the premier regional school of engineering/technology. However, first and foremost engineering at Central will open another attractive educational opportunity for many of Connecticut's talented students.

This spring semester we started revisiting our strategic plan, in an effort to update it to our ever-changing environment and to ensure that the school's plan conforms to the university's goals and objectives. Among other strategic goals, there is one, which is of highest importance. That is our students. With regard to students, the entire higher education process is defined by recruitment, admissions, retention, and graduation. We need to focus on each component of this process and adopt new strategies if necessary.

Our students are a very diverse group which has one thing in common—they are primarily Connecticut residents, who tend to stay and work in Connecticut after graduation. According to the CSU System statistical reports, over 85 percent of undergraduate and 91 percent of graduate students are state residents. At the same time, according to regional graduate retention data, only 27 percent of all graduates definitely want to stay in the region, while 45 percent plan to leave New England after graduation. This means that the CSU System has a much higher impact on the Connecticut economy than any other

four-year, higher education institution in Connecticut.

As an accessible and affordable state university which is conveniently located in the metropolitan Hartford area, and through an innovative pro-active recruitment effort, we can attract diverse, underrepresented, low-income students who are likely to be first-generation students. There is a lot of talent in these groups, as statistics show that some 10 percent of high achievers in high schools never go on to college. An individual attention, non-intimidating environment due to seamless transfer within the school, and first of all an array of different, high-quality educational options (applied sciences, engineering, engineering technology, and technology) make our school indeed unique and attractive. Through our active partnership with the Community Colleges, we also bring very good and well-motivated students from two-year institutions.

The above is obviously a great opportunity. Our job is to take advantage of it. "Connecticut Workforce Demands and the Implications for Education" a report by the CT Department of Labor concluded that, "Having programs available won't do much to address shortages unless those programs attract students. Marketing of these programs needs to be an integral part of the process. This marketing can be done in partnership with businesses and community-based organizations as well as high schools. New strategies will have to be developed to target groups that have not traditionally sought out higher education opportunities. Given the population and demographic trends in Connecticut, that may be where the next available pool of workers will come from". We cannot afford to miss this opportunity to reach out to new cohorts of Connecticut talents.

Having admitted new students to our programs, we face two other responsibilities. We need to retain them in our school and make them as successful as possible during their course of study and through timely graduation. These tasks are an enormous challenge, and an enormous responsibility. Our students certainly need more individual attention, and excellent advising and mentoring. We need to challenge them to the full extent of their potential, but we also have to lead them through rigorous curriculum and support them through in many different ways. For some it can be an opportunity to participate in an industry-driven project or internship; for others, an attractive extracurricular research or similar activity. In this way, the students will not only gain adequate education but also the necessary self confidence to succeed in professional life upon graduation.

I am confident that our highly-qualified faculty are well prepared and motivated to face the challenges of the contemporary higher education. In this way we will not only help many individuals to make their dreams come true, but we will significantly contribute to the State economic prosperity, which is a more and more demanding task in this "Flat World."

New Faculty



Dr. Clifford Anderson earned a Ph.D. in Civil Engineering from the University of New Mexico in July 2004 and BS and MS in Civil Engineering from the University of Arizona. Dr. Anderson is a registered

Professional Engineer and Land Surveyor. Dr. Anderson worked for the Smith Engineering Company, Albuquerque, New Mexico as Vice president and project manager. He was responsible for the planning and engineering involving structural design and analysis of concrete structures and surface drainage. He also worked for the Albuquerque Metropolitan Arroyo Flood Control Authority as a Drainage Engineer responsible for the review of private and public drainage projects. Dr. Anderson also worked as a Chief Engineer and Civil Structural Engineer for other engineering companies out West. The work involved the design and analysis of industrial buildings, bridges and water treatment facilities.

In the beginning of Dr. Anderson's Engineering career he worked on the design and analysis of the NASA Skylab space station at the Martin Marietta Corporation in Denver Colorado.



Farid Farahmand received the Ph.D. degree in electrical engineering from the University of Texas at Dallas in 2005. In 1993, he was a Hardware Design Engineer at Alcatel, USA. In January 2000, he moved

to Alcatel Corporate Research and become involved in development of terabit optical routers. He joined Central in August of 2005.

Dr. Farahmand holds multiple international patents, many published articles, and several book chapters, on the subject of optical networking. He is a member of IEEE and Engineers Without Borders-USA.

Dr. Farahmand research interests include high-speed packet switching and all-optical networks focusing on architecture and protocol designs for optical burst-switched networks. In addition, he is involved in studying high-performance computing and optical grid networks. Dr. Farahmand is always searching for dedicated students interested in challenging problems.



Barry Hoopengardner is an Assistant Professor at Central Connecticut State University in the Department of Biomolecular Sciences. He holds a Ph.D. in Biomedical Sciences from the

University of Connecticut. He is interested in studies of RNA modification, including RNA editing, a form of post-transcriptional regulation as demonstrated in the following publication: Hoopengardner et al., 2003. *Nervous System Targets of RNA Editing Identified by Comparative Genomics*. Science. 301: 832-836.

Karen C. Tracey Recognized at 2nd Annual Women of Innovation Awards

The Connecticut Technology Council during the Second Annual 2006 Innovation Leadership Awards Dinner on January 19, 2006 recognized women in Connecticut for their efforts in the technology, science and engineering fields. Dr. Karen Coale Tracey, Professor and Department Chair in the School of Technology at CCSU was recognized as one of the 2006 finalists in the category of Academic Innovations and Leadership.



There were recognized women who are innovators, role models, and leaders and who are researchers, educators, managers or service providers in science, engineering and technology. Nominees can come from such fields as biotech, pharmaceuticals, telecom, software, computer hardware, electronics, alternative energy, nanotech, medical devices, IT, networks, communications and robotics.

The finalists are women who exhibit the extraordinary energy that powers a company or institution. They are hard working, entrepreneurial, and inspirational to others and motivated to excel.

Technology Education Students Participate in 6th Annual World Human Powered Speed Championship

The Human Powered Vehicle team and Dr. David Sianez (Department of Technology Education) traveled to Battle Mountain, Nevada in October to compete against an International group of professional racers and world record holders in the 6th Annual World Human Powered Speed Championship. The one week event was the culmination of a two year process of designing, constructing, and testing the first high speed human powered vehicle developed at Central Connecticut State University. The 12 member team is currently developing a new carbon fiber shell and drive train system for the 7th annual event with the goal of surpassing the existing collegiate record of 59.89 mph.



Above: Craig Rogers, Bob Yanes, and Ed Szydlowski pose with the CCSU vehicle at the Battle Mountain Civic Center during press day at the 6th Annual World Human Powered Speed Championships in Nevada.

Left: Human Powered Vehicle team members Joe Szydlowski, Craig Rogers, and Ed Szydlowski preparing for test runs at Meriden Markham Airport.

Faculty Professional Activities

Publications

- Al-Masoud, N. *Development of MatLab Graphical User Interface for Teaching Statics*. in *ASME International Mechanical Engineering Congress and Exposition*. 2005. Orlando, Florida USA.
- Al-Masoud, N. and Singh, T. *Parametric Control of Thermo-Acoustic Instabilities*. *IEEE Transactions on Control Systems Technology*, 2005. 6: p. 1076-1083.
- Anderson, C. E., and Stormont, J.C. (2005). "Gravel Admixtures for Erosion Protection in Semi-Arid Climates." in *Geotechnical Special Publication No. 135, Erosion of Soils and Scour of Foundations*, Paper No. 40769-5705, Geotechnical Institute of the American Society of Civil Engineers.
- Anderson, C.E., Ward, T. J., and Kelly, T. (2005). "Rainfall-Runoff in the Albuquerque, New Mexico, Area: Measurements, Analyses and Comparisons," in *Managing Watersheds for Human and Natural Impacts, Proceedings of the 2005 Watershed Management Conference*, Paper No. 40763-7214, the American Society of Civil Engineers.
- August, K.L., Baumann, P.F. and Lema, L.F. *Design of a Compression Mold Base Tensile Specimen Cavity Insert*. in *SAMPE Conference*. 2005. Covina, CA: Society for the Advancement of Material and Process Engineers.
- Baumann, P.F. and Lema, L.F. *Culminating Team Design Project Reinforces Multiple Problem-solving Principles and Skill Sets of an Introduction to Engineering Technology Course*. in *ASEE*. 2005. Washington, DC.
- Kapper, M.A. 2006. Aquaporins and Salinity Adaptation in the Ribbed Mussel. *Integrative and Comparative Biology* 45: 1152.
- Lema, L.F., Baumann, P.F., and Prusak, Z. *In-common Methodology for Objective- and Outcome-based Programs Assessment*. in *ASEE*. 2005. Washington, DC.
- Lema, L.F., Baumann, P.F., and Chapman, T.G. *Integrated Curriculum in Manufacturing Engineering Technology in CIRP International Manufacturing Education Conference and 3rd SME International Conference on Manufacturing Education*. 2005. Dearborn, MI.
- Mills, E., LaMonica, K., Hong, T., Pagliaruli, T., Mulrooney, J., Grabel, L. (2005) *The Role of Rho-ROCK in Parietal Endoderm Migration, Cell Communication and Adhesion*, 12: 9-22.

Presentations

- Al-Masoud, N., 2005 CSU Faculty Research Conference "Development of MatLab Graphical User Interface for Teaching Statics"
- Baumann, P.F., 2005 CSU Faculty Research Conference, "Design and Analysis of Compression Molded Composite Specimens Exhibiting Bend-extension, Torsion-extension, and Shear-extension Mechanical Coupling"
- Emiliani, Bob, Stec, David; "The Lean Enterprise" on 22 September 2005, in Putnam, CT. The talk was part of the Connstep/Putnam "Strategic and Leadership Issues for Manufacturers." Emiliani also gave three talks at the Connecticut Shingo Prize Conference that was held at the Connecticut Convention Center in Hartford on 16 November 2005. The titles of his talks were: *The History of Lean in Connecticut; The Wiremold Company Success Story; and Using Value Stream Maps to Improve Leadership*.
- Kapper, M.A. 2006. Aquaporins and Salinity Adaptation in the Ribbed Mussel. January, 2006 at the Society for Integrative and Comparative Biology Annual Meeting, Jan. 4-8, Orlando, FL.
- LaMonica, K.A., Hong, T., Mulrooney, J., Grabel, L.B.; Visualizing Dynamic Structures in Migrating F9-Derived Parietal Endoderm. American Society of Cell Biology, 2005 Meeting, Dec 10-14, San Francisco, CA.

Grant Awarded:

Regulation of Parietal Endoderm Migration. NIH AREA Grant, \$150,000 (J. Mulrooney, written in collaboration with Laura Grabel of Wesleyan University). Anticipated start date: June 2006.

Other Accomplishments:

Dr. Emiliani was invited to become an affiliated scholar for the National Academy of Engineering's (NAE) Center for the Advancement of Scholarship on Engineering Education (CASEE).

Dr. Emiliani was appointed to the position of US Regional Editor on *Supply Chain Management: an International Journal (SCM:IJ)* in December of 2005.

CCSU Takes Top Honors at Regional Event

CCSU students Matthew Dablain, Jeff Goric, Brian Higgins, and Maria Ruscitti earned CCSU its third TECA-East *Technology Challenge* title in five years. The team placed first in a field of twelve, overcoming challenges from teams from Clemson, California University of Pennsylvania, and North Carolina State University. CCSU also won honors in three other events at the Virginia Beach conference, including first place in the *Automated Systems* event.

The *Technology Challenge* is the marquee event at TECA East, a yearly gathering of more than 200 college students from east-coast universities from SUNY-Oswego in upstate New York to Georgia Southern University. The 2006 conference was held on February 16-18.

Since CCSU's last championship in 2003, teams from the College of New Jersey have stood in the way of a CCSU victory. In fact, this friendly rivalry extends back to at least 1990, when the New Jersey team edged out CCSU at a competition in Salt Lake City. But this year, after besting TCNJ in the first round of the single-elimination event, CCSU fended off the remaining competition to re-take the title.

Of the twenty-three CCSU students who participated, twenty are technology education majors, and ten were making at least their second trip to an out-of-state TECA event. For the second year, the Central team was joined on the bus trip by seven students from Fitchburg (Massachusetts) State College. Sophomore Matthew Kiewlen, treasurer of Central's TECA chapter, handled most of the logistics for the trip.

Three other CCSU teams won TECA-East awards this year:



Communications team with CCSU professor James DeLaura. L to R: DeLaura, Michael Wilkosz, Matthew Kiewlen, Carey Poetzsch, Maria Ruscitti, Jill Mullady.



Technology Challenge team. L to R: Jeff Goric, Brian Higgins, Maria Ruscitti, Matthew Dablain

The *Automated Systems* team took first place at the Virginia Beach conference. Last year's *Automated* team—Michael Creem, team captain Matthew Dablain, Craig Rogers, and Paul Nowakowski, had a close call with victory in 2005, and were joined this year by first-year student Ryan Semeraro. The result was probably the clearest victory for Central in years. The winning apparatus and design paperwork is on display in Copernicus 101.

In a much tighter competition, Central took third place in the *Communications competition*. Although this has traditionally been one of CCSU's strongest events, it usually features the best competition. This year was no different. Team captain Maria Ruscitti, a veteran of several champion Communications teams, was joined by Matthew Kiewlen, Jill Mullady, Carey Poetzsch, and Michael Wilkosz. North Carolina A&T won first place.

Also earning a third-place trophy was the *Instructional Module* team. Perennial winners Millersville University again took top honors, but Central students Patrick Folsom, John McCandless, and Christopher Mele continued CCSU's rising prominence in this event.

Other participating students were CCSU-TECA officers Daniel Kolatsky and Tom Richards, each making his sixth out-of-state TECA trip, and first-timers Jonathan Arpaia, Laura Baker, Timothy Bouffard, Steven Fix, Scott O'Brien, and David Thompson. Central faculty members James DeLaura, Patrick Foster, and Jerry Friedman also attended, as did Fitchburg faculty members James Alicata and Wayne Whitfield.



Janis Ardito Joins School of Technology as Administrative Assistant

Janis Ardito, Administrative Assistant, joined the School of Technology in December of 2005 transferring from the Department of Mental Retardation, where she spent 11 years working in the Private Sector division. Prior to her employment at DMR, she spent eight years at SCSU as a secretary in the Registrar's office, the English Department, and ultimately the Nursing Department. Janis is a graduate of the Stone School of Business and Gateway Community College (AS Degree).

Zbigniew Prusak Honored with CCSU's 2005 - 2006 Excellence in Teaching Award

Dr. Zbigniew Prusak, professor of engineering technology, who believes the objective to teaching "is the development of open-minded and highly ethical professionals, ready to work in today's high-tech environment, and prepared for life-long learning," has been honored with the Central Connecticut State University 2005-2006 Excellence in Teaching Award.

In accepting the \$1000 award to be used for professional development in the coming year, Prusak said he will likely put strong emphasis on effective teaching. He noted, "In my everyday work with students and in my professional development, I strive to be intellectually engaged in my discipline, eager to listen and learn as I teach, dynamically follow the direction of the student needs shown in the classroom and challenge students to develop their own analytical and critical thinking skills."

The selection of honorees is based on a comprehensive process with nominations coming from the community at large; full- and part-time faculty members are eligible. The honorees are widely acknowledged by colleagues and students for their dedication to teaching that inspires extraordinary learning.

A New Britain resident, Prusak earned his Ph.D. in mechanical engineering at the University of Connecticut, where his work was judged as "Excellent" by the examination committee. Additionally, Prusak has 34 publications in engineering and in engineering education



2005 Outstanding Alumna

Ms. Renata Sedzimir received both her undergraduate degree in Graphic Design/Management in December of 1992, and her graduate degree in Art/Graphic Design in May of 1996 from Central Connecticut State University. She was also on the Dean's List. She is employed at ESPN, Inc. as a Senior

Graphic Designer since 1996.

She has worked on major design and animation projects for studio and remote productions. Ms. Sedzimir redesigned the ESPNEWS, Sunday Night Football, and the 2004 Insert Graphics Redesign project for SportsCenter and the whole network into HDTV.

She has received numerous awards such as in: 1997 – Honored as an outstanding Central Alumni at the 20th Anniversary of the Ruthe Boyea Women's Center, 1999 – Designed the CCSU Blue Devil Logo and 2003 – Sports Emmy Awards for ESPN SportsCenter – Outstanding Studio Show – Daily

*In memory of
Nancy Dobreski
who served as Administrative Assistant
to the Dean of the School of Technology
August, 1986 to July, 2005*

The laboratories in Rooms NC 118 and 119 were remodeled by dividing part of the area into modular units devoted to specific areas of engineering and technology. School of technology faculty designed the laboratory layout to complement industries needs and accommodate the current and new laboratory based courses developed in the School of Technology. Also the new modular laboratories were designed to accommodate the growth of the technology programs along with the introduction of a Mechanical Engineering program. The Laboratory is now divided into three modules; Thermal and Mechanical Engineering laboratory, Fluid Mechanicals laboratory, Automation and Robotics laboratory. The Electro-Mechanical Converters, Mechanisms and Fluid Power and the Prototyping laboratories make up the remainder of the room.



Renovation of Rooms 118 and 119 Creates Three New Modular Technology Laboratories in Copernicus Hall

The Thermal and Mechanical Engineering laboratory, NC11801, a separate unit contains over \$80,000 in equipment, which currently serves the engineering technology program. The lab will be used for experimentation involving thermodynamics, machine design, heat transfer, instrumentation and senior project.

The Fluids Mechanics laboratory, NC119 contains over 100,000 state of the art equipment purchased within the last five years. The laboratory provides students with the opportunity for hands on experience in fluid mechanics and hydraulics and is used extensively in the Fluid Mechanics course, required for all Engineering Technology majors.

The Automation and Robotics laboratory contains a variety of electro mechanical robots in a clean room environment. The robots are programmed with state of the art languages and have a variety of additional equipment such as vision systems and parts feeding devices.



2005 Spring and Fall Golf Outing Results



The semi-annual Golf Outings, for which the School of Technology has become well known, continue to be enjoyable occasions once a semester for faculty, alumni, students and guests that gather for a day of fun and relaxation.

Join us for the Spring 2006 golf outing is scheduled for May 12th with a 12 pm shotgun start at Goodwin Park in Hartford. Call Janis Ardito at 832-1000 to register.

This past year's winners were as follows: *Spring 2005 Winning Team* was the defending Champs from the Fall of 2004 **Dr. James DeLaura, Christine Zakrzewski, June Na and Dave Cody**. *Longest Drive* was won by: **Ray Perreault and Gary Mackiewicz, Jr.** and *Closest to the Pin* winners were: **Steve Posa and Shane Burns**.

The Fall 2005 Outing gave us two teams tied with 10 under par. The tie was broken by matching score cards to determine the winning team comprised of: **Dr. Raymond Perreault, Brian Addy, Bill Wahl and Brian Richie** leaving Ralph, Fabiano, Christine Zakrzewski, June Na and Dave Cody in second place and preventing a threepeat.

The Longest Drive on the front nine was won by **Rory Edwards** with the back nine being taken by **Professor David Stec**. *Closest to the Pin* on the front nine was **Paul Mailhot** at 2 feet 8 inches on hole number 7 over the water. **Bill Wahl** won the honors on the back nine with 19 feet 9 inches on hole number 11 the 200 yard par 3.

College of Technology Pathway Program

The College of Technology is a legislative created seamless pathway that allows a student to begin a technology or engineering studies at any of the state's twelve Community Colleges with the ultimate goal of achieving a four-year, baccalaureate degree in Engineering and Technology at four year universities.

The College of Technology has been actively involved in providing the much needed workforce in manufacturing in Connecticut. The College of Technology has recently been awarded a four year, \$3 million, National Science Foundation Grant to create a Regional Center for Next Generation Manufacturing (RCNGM). RCNGM has collaborated with Connecticut Business and Industry Association to develop a manufacturing careers campaign, which includes a survey, a media campaign, and a website to attract students to careers in manufacturing.

Dr. Olusegun Odesina coordinates the Pathway Program for the School of Technology and can be reached at (860)832-1833 for more information.

Technology Students Score in National Competition

A team of undergraduate students from the School of Technology's National Association of Industrial Technology (NAIT) student chapter won second place at the national Tele-Operated Robotic Manipulator Contest in the Non-Vision division. The students designed, built and programed a mobile robot to pick up and carry an 8-inch long piece of 1.5-inch diameter metal pipe through an obstacle course to a predetermined location and place the pipe through a 3-inch hole in a half-inch thick piece of plywood. Seen here with their vehicle, the students and their advisors – (from left) **John Sawn, Brian McNeil**, professors of manufacturing and construction management **David Stec** and **Daryl Dowty**, and **John McCandless** – traveled to St. Louis for the 38th Annual NAIT Convention, to compete against other university student chapters from around the country. "The students came very close to winning the event," said Dr. Paul Resetarits, department chair and professor of manufacturing and construction management, "and their achievement was stunning for a first-time national competition. They are, of course itching to build on this experience and compete in the next NAIT event."





Recent news from the Technology Education Department



The past two months have been busy for the technology education faculty.

We are beginning to offer the courses which will comprise our new curriculum. **Dr. Vincenti** is teaching the new TE 221 course, *Innovation & Invention* and the revised *Communications Systems* course (renumbered to TE 310). **Dr. Sianez** is teaching two new courses: *Electronic Portfolios and Assessment* (TE 115) and *Technology and Engineering Education Senior Design Project* (TE 498). **Dr. Foster** is teaching *Integrating Engineering Concepts for K-8 Students*. Also this semester, **Mr. Friedman** is offering a special section of TE 599 on the topic of design in technology education.

CCSU technology education majors have been busy as well. Some have begun to work with K-8 students at Moser school in Rocky Hill, Smalley School in New Britain, and Naylor school in Hartford. Twenty-two students participated in the TECA Eastern Regional Conference in Virginia Beach in February.

We have nine student teachers this semester. Due to state testing schedules, they are assigned to a high school for the first

eight weeks of the term, then a middle school for the second eight weeks. The student teachers are Bill Block, Ray Frost, Brian Higgins, Tom Lutka, Dan Oleksiw, Matt Pogson, Maria Ruscitti, April Vaillancourt, and Todd Zagurski. **Dr. DeLaura**, **Mr. Friedman**, and **Dr. Vincenti** are supervising these future teachers.

On February 9, the department again hosted the annual Connecticut Electrathon advisors' meeting. Mike Grella, state Electrathon coordinator, and Gary Konicki, race steward, presided. Sixteen high-school advisors and five high-school students attended, along with CCSU technology education majors **Laura Baker** and **Chris Garratt** and technology graduate student **Joe Konicki**. The spring Electrathon will be held on June 2 at Lime Rock Park.

We are planning for several other events this spring. At least twenty students will attend the Baltimore conference of the International Technology Education Association in March. CCSU will also once again host the annual Connecticut Technology Education Association conference on June 8.

New and Continuing Computing Technologies in the School of Technology

The sophisticated application of computing technologies is at the core of much that occurs at the School of Technology. The Center of Excellence status earned by the School of Technology was awarded primarily based upon the consistent way in which the School of Technology utilizes cutting edge computing technologies in its curriculum. The Office of the Computer Facilities Manager provides the technical expertise and implementation knowledge necessary to maintain the School of Technology's status as a leader in the use and application of current computing technologies. The result of this technical expertise and implementation knowledge is an enhanced environment of technical scholarship, pride, student focus, and a more attractive environment for prospective students.

In support of these ideals, the School of Technology recently purchased new personal computers for its computer labs. The personal computers consisted of Dell Optiplex computers configured with 2GB of RAM, 19" Flat screen monitors, 3.2GHz processors, high-end graphics cards, and 250GB SATA hard disks. While this configuration might be considered too robust for a typical home computer, it actually works out very well for the needs of a School of Technology student. Whether the student is creating a complex UGS Unigraphics-based assembly consisting of many sub-parts, compiling a movie using a digital video editing solution, or analyzing stresses on a fixture using the COSMOS finite element analysis (FEA) software package, the School of Technology provides the correct computer software and hardware tools to accomplish the assigned task in an accurate and efficient way.

We take pride in our dedication to the efficient use of sophisticated computing technologies to solve complex real-world technical problems. We think it shows.

Computer support and innovations are ably handled by Henry R. Rudzinski Jr., Computer Facilities Manager and Michael Shane Devine, Assistant Computer Facilities Manager for the School of Technology.



1615 Stanley Street, New Britain, CT 06050

CCSU is a university of the Connecticut State University system and an AA/EQ institution.

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