

CFT NEWS

Newsletter of the Division of Engineering Technologies and Computer Sciences at Essex County College

New Degree Program in Utility Energy Technology



Essex County College is in the process of developing, in partnership with Public Service Electric & Gas Co. (PSE&G), a new A.A. S. degree program titled “Energy Utility Technology.” The program will include specialized courses in electric and gas transmission technology which will be taught at the PSE&G Training Center in Edison, New Jersey. The remaining courses will be taught on the Newark campus of ECC. The program will be part of the Division of Engineering Technologies and Computer Sciences housed in the Center for Technology. One of the strong features of the program is that it is intended to lead directly to a job at PSE&G although a job is not guaranteed.

An information meeting is scheduled for Tuesday, November 25, 2003 in the CFT. Interested students should attend one of the two sessions (2:30 pm and 6:00 pm) to learn important details about the program. For more information contact Prof. John Gribbin, Division Chair.

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An Open House was held in the CFT on September 18, 2003. Ms. Dana DeYoung, Director of Utility Human Resources at PSE&G, explained how the program will work and gave a short history of PSE&G. The event was well attended and several students indicated interest in starting in the program. The first major courses are scheduled to be offered in the Spring 2004 semester. Three courses will be offered at the Edison Training Center on Fridays during the semester leaving the rest of the week open for other courses to be taken at ECC.

In the summer, an internship will be offered. Students will work as interns for PSE&G at a rate of about \$14 per hour.

The program has been approved by the College Curriculum Committee and awaits approval by the Board of Trustees.

A similar program was initiated last year at Mercer County Community College. That program is currently running and some students have already been hired by PSE&G. We expect that the program here at ECC will be at least as successful as that at Mercer.



Ms. Dana De Young of PSE&G



Prospective students attending Open House



CFT NEWS

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Faculty Summer Activities

Hosseln Assadipour

In addition to a couple of consulting works in CAD, he upgraded all the following CAD texts that he has written:

1. Learning AutoCAD 2004
2. Advanced AutoCAD 2004 Applications
3. Learning MicroStation V8
4. Learning Pro/Engineer (Wildfile)

Rosa D. Otero

Continued with her dissertation research on Henry Klumb at the Archives of Architecture and Construction of the University of Puerto Rico.

Appeared at the San Juan, Puerto Rico, PBS station on a TV show dedicated to Henry Klumb, the name of the show is “Prohibido Olvidar”.

Directed a research at the Newark Public Library, NJIT School of Architecture Library among other institutions on Ludwig Mies van der Rohe’s Colonnade and Pavilion Apartments in Newark, NJ with two current ECC architecture students: Jair Alava and Jean Davilus.

Charles Jones, Alvin Williams, J.P. Yue

Completed a Cisco Certified Network Professional training program at New Hampshire Technical Institute. There were two sessions, one in June, one in July.

Bernie Zivotofsky

Prof. Zivotofsky participated in two programs during summer 2003. These were Chautauqua Short Courses for College Teachers sponsored by the National Science Foundation as part of a NSF funded Faculty Development Program.

I- Stony Brook University, June 26 through June 28.

“Life and Mind”, taught by Drs. Paul Adams and Lonnie Wollmuth.

The instructors are directors of research in neurobiological science at Stony Brook. They presented and described current theories emerging from brain research into the learning process in biological organ-

isms, mostly human. Much of it involves electrochemical processes in the creation of synapses in the neural networks; quite remote from Bernie’s formal training. But the fundamental principles governing scientific research is common to all areas and suggested similarities to the development of “thinking” and “learning machines” is fascinating.

II- University of Hawaii at Hilo, July 7 through July 10.

“Giants of Mauna Kia” Organized by Dr. Gilbert Yanow of NASA at Cal. Tech Campus. Bernie studied with Prof. Yanow last summer at NASA’s Jet Propulsion Laboratories in Pasadena, California. That course was entitled “Exploration of the Solar System and the Possibility of Life”. “Giants” refers to some of the worlds largest terrestrial telescopes which are located at the 14,000 foot peak of the volcanic mountain, Mauna Kia. The scientists who operate these instruments argue that the location provides the best viewing of deep space of anyplace on the planet. Three days were at ground level in the control centers at the university, and one, at the summit, exploring the equipment. State of the art innovations include adaptive optics which render these ground based scopes competitive with space borne observatories.

The computer controlled electronic systems which continuously reconfigure the huge mirrors in these reflecting scopes are excellent illustrative applications of some of the basic principles which are introduced in our ELC program at Essex.

Extra bonuses included hiking the volcanic formations and learning something about their geology, observing the flora and fauna on four of the islands, and sampling the pleasures of their beaches.

Mark Galit

Worked on the development of course web pages on the college web site.

News Brief

RECENT CFT ACQUISITIONS

The following describes the most recent CFT equipment acquisition:

Fifty new Dell GX270 computers with sleek 17" flat panel screens have been installed in two computer laboratories (T203 and T111).

The MEC acquired the 85-MT2 electric machines system by Amatrol. This system is designed to teach a wide variety of electrical machines including both motors and generators, used industrial, commercial and residential applications. The system was accompanied by a set Learning Activity Packets (LAP's) on hard copy and interactive CD which will allow professors to customize the curriculum to course needs.

The need for several stand alone printers throughout the MEC/MET labs has been eliminated. During the summer the adjoin-

ing labs gained wireless printing capabilities. An HP Laserjet 4600N was purchased to give students a central location to retrieve documents. Previously, students had to save their work on diskette then go into one of the academic computing labs for most of their printing needs.

The first shipment from the HP Wireless Grant has arrived. The grant consists of 30 Compaq Evo Notebook N610C computers, a digital projector, an HP OfficeJet d155xi printer, and a digital camera.

Four Communications training systems TIM-301 by Emona Instruments were purchased for the ELC lab. The hands on system models mathematical equations representing electrical signals, or block diagrams representing telecommunications systems.

PROF. ENRIQUEZ MOVES TO BIOLOGY

Prof. John Enriquez, formerly of the Engineering Technologies & Computer Sciences Division has moved to the Biology & Chemistry Division. Utilizing his M.D. degree, Prof. Enriquez now has the rank of Assistant Professor and will be spending most of his time teaching Biology courses. A graduate of ECC, Prof. Enriquez was in the ET&CS Division for four years teaching Computer Science and Networking courses. He will keep a presence in the Division by teaching some night Cisco courses. We will miss Prof. Enriquez in his full-time role here in the Division.

AIAS CHAPTER AT ECC

On October 15, 2003, Prof. Rosa Otero, Coordinator of the Architectural Technology Program in collaboration with Division's Chairman, John Gribbin officially established a local chapter of the American Institute of Architecture Students (AIAS). The AIAS is a national student organization which promotes architectural education and profession. Recruiting of members will continue throughout the academic year. For more information on membership and benefits please contact Professor Otero at otero@essex.edu or chapter's president Jair Alava at toop34@yahoo.com, and/or vice-president Adrian Torres at adrianpskb@hotmail.com.

CFT STUDENTS EARN SCHOLARSHIPS

Several CFT students received scholarships to help further their college education during the 2001-02 academic year. Jasenko Dropic (*ELC*) and Vir Angelo Lontoc (*Engineering*) were recipients of the Research & Development Council of New Jersey Technician Scholarship for 2001 in the amount of \$1,500. Sayyeda Lundy (*CET*), Randy McMaster (*CET*) and Parkouda Abdoulaye (*CET*) participated in the Edward O. Davis Memorial Student Summer Employment Scholarship during summer 2001. They received \$2,500.00 each. Four CET students won scholarships from the Construction Industry Advancement Program of New Jersey (CIAP). They are Jazmin Rivera, \$250, John Matrona, \$750, Keisha Thomas, \$1,500, and James Bencivenga, \$1,500. Vir Angelo Lontoc (*Engineering*) and Crisenger Guerisma (*Computer Science*) were the winners of the ETCS Division scholarship and received \$400 each.

ADJUNCT FACULTY PROFILE: JUDY GLINA

Prof. Judy Glina is new to Essex County College this year and is teaching ARC 201—Architectural Design III. She holds a Masters of Architecture from NJIT and a Bachelor of Arts in Mathematics from Boston University. She is currently a designer at Hillier, New York working on all phases of K-12 projects.



Prof. Judy Glina (far right) with guests at an Architectural Design review

Letter from Jianping Yue at NASA



Prof. Jianping Yue

October 14, 2003

Dear Colleagues:

I started my one-year NASA Administrator's Fellowship tenure at NASA Langley Research Center on September 1. I really miss all of you and my students at ECC.

Langley Research Center (LaRC) is one of NASA's ten centers cross the country. The other NASA centers are: Ames Research Center in Moffett Field, California; Dryden Flight Research Center in Edwards, California; Glenn Research Center in Cleveland, Ohio; Goddard Space Flight Center in Greenbelt, Maryland; Jet Propulsion Laboratory in Pasadena, California; Johnson Space Center in Houston, Texas; Kennedy Space Center in Florida; Marshall Space Flight Center in Huntsville, Alabama; and Stennis Space Center in Mississippi.

LaRC's researches focus on structure and materials, airframe systems, and atmospheric science. LaRC is located in Hampton, Virginia, the area known as Hampton Roads including Virginia Beach, Norfolk, Hampton, Newport News, Yorktown, Williamsburg, and other cities along Chesapeake Bay and Atlantic Ocean. The area has many attractions for tourists. Historic Jamestown was the first English settlement in North America. Colonial Williamsburg is America's largest living history museum. Yorktown marked the victory of the Revolutionary War. The Chesapeake Bay Bridge-Tunnel, spanning 18 miles from shore to shore, is the largest bridge-tunnel complex in the world and one of the "Seven Engineering Wonders of the Modern World."

The NASA Administrator's Fellowship Program (NAFP) started in 1997. Each year, up to 6 NASA scientists and 6 Science, Technology, Engineering, and Mathematics (STEM) faculty of minority serving institutions are awarded the fellowship. For the one-year fellowship residency, the NASA scientist fellows teach at colleges and the faculty fellows do research at NASA centers. I am the first faculty member from a community college receiving the award. At LaRC, I am working with a research group on improving the machining cycle time making aerodynamic models. We will experiment with various new technologies on a milling machine running at 15,000 RPM. The research will lead to lights-out manufacturing or fully automated manufacturing in the future.

As many of you may know, the nature of my work at LaRC is very different from that at ECC. One of the differences is in the work schedule, to which I am still having difficulty adjusting. At ECC, I teach many evening courses and often cannot go to sleep before midnight. At LaRC, people come to work really early; some come as early as 6 a.m. So I have to get up in the dark in order to catch up with the majority. I'm sure time will help me adapt to this type of schedule.

One of NASA's missions is to "inspire the next generation of explorers." There are so many educational opportunities at NASA such as internships, scholarships, and other educational programs. In my next letter, I'll introduce some of these opportunities to ECC students.

As much as I enjoy my work and the research environment at NASA, I also look forward to working with you again in the next academic year.

Hope you all have a wonderful semester!

Jianping

The Meaning of Life—Reflections by Prof. John Enriquez

What is the meaning of life? Philosophers have argued for centuries about the meaning of life. But in 1953, two scientists came up with an idea on how life is written. And, for the past fifty years, Geneticists, Computer Scientists, and Mathematicians, have been researching on how life is read.

It literally had to take an act of Congress to bring together the scientific community in an effort to decipher the human genetic code. In 1989, Congress formed the National Human Genome Research Institute with a budget of \$90 billion and a 15 year schedule to map the human DNA (Deoxyribonucleic acid) sequence.

The Human Genome Project is expected to be of immense benefit to medical science. It will help us to understand and eventually treat many of the more than 4000 genetic

diseases that afflict mankind. It is anticipated that the private sector will derive great benefit from the trained man-power, the data and the techniques developed by the human genome program. Moreover, it will develop many useful applications based on the new knowledge produced. Within a few years, DNA sequence information will undoubtedly be a major tool in most areas of basic and applied biological and computing research.

On March 25, 2003, a lecture was jointly sponsored by the Biology and Chemistry Division and Engineering Technologies and Computer Science Division. The seminar was paneled by Professor Frank Duroy from the Biology Department, John Enriquez from the Computer Science Department, and Dr. Charles Du, from Montclair State University's Molecular Biology Department.



Dr. Charles Du

Project GRAD

During the summer, Professors Theo Acquaye and Jianping Yue instructed high school students in CAD and Robotics. Two



classes of 24 tenth grade students were in the CAD class and two classes of 27 ninth grade students were in the Robotics class. During the four week Project GRAD summer institute, students worked in three member teams designing a robotic program and competing among the teams.

Classes were conducted in the CAD Lab and in the Robotics/CNC/CAM Lab in the CFT. The students also saw a demonstration of the lab's state-of-the-art Computer Integrated Manufacturing (CIM) system.

Project GRAD Newark is a partnership with 16 Newark Public Schools and colleges such as ECC and Rutgers. This collaborative effort between schools, community, business and higher education is intended to address the educational needs of Newark Public School students. Project GRAD Newark requires each student to attend two Summer Institutes which may be taken after the freshman, sophomore or junior year of high school. Essex County College offered academic enrichment to 40 freshmen and 40 sophomores from Malcolm X Shabazz and Central High Schools.



Both images show Prof. Theo Acquaye working with students in the CIM Lab.

99 CFT Students Graduate in 2002-2003 Academic Year



These students persevered through several semesters of academics combined in many cases with the rigors of full time employment and other responsibilities. We extend our congratulations to them and wish them success in their further education and in their careers.

When Essex County College held its thirty-fourth annual commencement on June 1, 2003, the Engineering Technologies & Computer Sciences Division sent a record number of degree and certificate candidates to the podium. Others received degrees and certificates in August and December 2002 for a total of ninety-nine. Following is a list of those students.

Applied Computer Science AS:

Jean-Wilner Alexandre, Michelle Boone, Carla Da Costa, Crisinger Guerisma, Innocent Opara,

Architectural Technology AAS:

Dominique Duroseau, Lorene Esperidiao, Christopher Kasperan

Civil Const. Engr. Tech. AAS:

Pierre Limage, Sayyeda Lundy, Abdoulaye Parkouda, Keith Arthur, Clayton McMurray, Victor Almanzar

Computer Information Systems AS:

Jennifer Bharrat, Andrene Bryan, Beverly Datilus, Siria Mata, Alioune Mbengue, Shaibu Musah, Irene Mwangi, Ratan Patel, Yulanda Philbert, Karla Polanco-Lima, Osbaldo Sandoval, Sodolamu Solanke, Hawa Umaru, Sadia Ahmad, Irma Behrle, Lola Brooks, Jessica Diaz, Michelle Kopitman, Juanique Henerson, Saffiyah Jordan, Jackie Joseph, Patricia Kimanzi, Jose Reyes, Carol Robinson, Lordy Volcy, Uzoma Ekedede, Naidamar Maldonado, Robin Perry, Alicia

Robertson, Nykeama Robinson, Eugenia Kolessova, Sherry Kyei Baffour

Computer Science AS:

Malack Ameyna, Iman Elshikh, Neha Goswami, Seung Jeong, Bendy Megie, Rekha Nandwani, Abayomi Ogunyemi, Tobe Onubiyi, Abdul Osborne, Jude Paul, Luis Torres, Garfield Vernon, Wilfrid Peralte, Mame Akpan, Charles Aryee, Reginald Go, Marcus Henry, Paul Migaj, William Morales, Arif Ozer, Charchil Pardiwala, Jaimin Patel, Juan Sandoval, Niraan Umarally, Peter Okerchiri, Gina Vera

Electronic Engineering Technology AAS:

Alicia Alexander, Herbert Bell, Duckens Excellent, Dwayne Knight, Edwyn Merius, Godfroy Ekoue, Juan Gallardo

Engineering AS:

Bamidele Atunrase, Herbert Bell, Ryan Barrow, Dave Benjamin, Vivianne Couott, Vir Angelo Lontoc, Michael Pergolizzi, Elkanah Samoita, Younes Abou El Jinane, Angelo Cassilli, Leyland George, Akorfa Gidiglo, Konadu Alex

Manufacturing Engineering Tech AS:

Silvio Montesdeoca, Michelle Dorch, Mario Motayne, Milan Shah

Mechanical Engineering Tech AS:

Daniel Mulvaney, Walter Aucaylle, Mohamed Elskikh

A CAD Contest

The third annual Computer-Aided Design (CAD) contest was successfully completed on April, 2003. The winners were Nelli Malova (first place), Andy Alleyne (second place), Josephine Matic (third place), and Paul Facey (honorable mention). The winning CAD drawings are on display in the lower lobby of the Center for Technology.

4th ANNUAL CAD CONTEST ECC – Center for Technology

Deadline for submission:
Friday, April 2, 2004

Submit to Prof. Acquaye, and/or Prof. Assadipour

Career Opportunities in Biomedical Engineering

Presenter:

Darnell Simon

PhD Candidate in Biomedical
Engineering,
New Jersey Institute of Technology

*Learn about the exciting field which
includes many specialties from
Rehabilitation to Sports Medicine
Research*

**Thursday, November 13, 2003
2:30 pm**
Center for Technology
Lower Lobby