Director’s Message

Kudos to students, faculty and staff for another memorable year! Not only has our BS in electrical engineering program been reaccredited by the EAC-ABET until 2017, but our outcome assessment is considered by the visiting team as the best they have ever seen.

Our students have excelled in many areas, and they are getting great internships and jobs. Serving the enlisted men and women, they and their professors have worked with NAVAIR engineers to solve real-world problems that the U.S. Navy is facing. They have also successfully hosted the ASCE Metropolitan Regional Conference through the FDU-ASCE Student Chapter two years in a row.

Our academic programs are enjoying significant growth, and our outreach programs have attracted many highly motivated minority and financially disadvantaged students. With generous grants from corporate donors and support from the University, we have continued to upgrade our labs, including the purchase of a 3-D printer for prototyping.

These successes resulted from our programs' emphasis on practical applications and our strong commitment to a close student-faculty relationship. Above all, our students, faculty and staff do indeed try and work harder to achieve their goals. In this dire economic environment, we feel fortunate and grateful for our accomplishments and are hopeful for better things to come.

Alfredo Tan, director of GHSCSE, tan@fdu.edu

Student Achievements

2011 ASCE Metropolitan Conference

FDU’s American Society of Civil Engineers (ASCE) Student Chapter hosted the ASCE 2011 Metropolitan Regional Conference at the Metropolitan Campus making the event an unforgettable experience for all the attendees. Altogether, 13 out of 16 schools that were invited participated in the conference.

The conference kicked off on April 15 with a business meeting, a formal dinner and a presentation on marine engineering by Alicia Mahon, president of ASCE Younger Member Group (YMG). The night ended with a presentation competition, where students from seven participating schools described how they analyzed, designed, built and tested their concrete canoes. The FDU team took second place in this competition.

The steel-bridge competition was held on April 16 in the Fitness Center, Metropolitan Campus. Based on the specifications provided by ASCE, students from 10 participating schools designed, fabricated and built a steel bridge prior to the competition. The competing teams then assembled their bridges during the competition, and professional engineers, who served as judges, inspected and loaded the bridges to determine whether the specifications were met. Participating for the first time, the FDU team was led by Honphrey Vicente (BSCET’12).

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The conference concluded with the concrete-canoe competition, which took place at Cook’s Pond in Denville, N.J. For this competition, the students were required to design a concrete mixture, fabricate a mold and build a canoe out of concrete. On the day of the competition, all the canoes underwent several tests and the schools that passed got the opportunity to race their canoes. Under the leadership of team captain Nahon Torres (BSCET’12), FDU finished the competition in fourth place.

When asked to comment on hosting the conference two years in a row, ASCE Student Chapter President Dejan Donev (BSCET’12) said, “It is not a one-man show. The conference would not have been successful if I did not have the help of all my fellow students and faculty adviser, Stanley Bielewicz, lecturer of civil engineering technology and coordinator of the civil engineering technology program. It all comes down to teamwork; everyone for sure played a big role in the organization, and I want to take the time to thank all of them who helped this to be a very successful event. I also want to thank our sponsors who helped us out tremendously with the monetary support.”

IEEE North Jersey Spring 2011 Student Presentation Contest Winners

As in the past, Gloria Reinish, professor of electrical engineering, hosted the spring 2011 Institute of Electrical and Electronic Engineers (IEEE) North Jersey Student Presentation Contest at the Metropolitan Campus on February 25. The contest provides students with an opportunity to strengthen their presentation skills needed for a successful career in engineering. FDU student winners include — in the undergraduate category — Fred Clark (BSEE’11), first place; and Carine Girgis (BSEE’11) and Michael D. Strachman (BSEE’11), both second place — and in the graduate category (continued)
GHSCSE Newsletter

— Ankita Savredekar (MSEE’12), first place; and Eduardo Valdivia-Reyes (MSEE’12) and Udit Singh (MSEE’12), both second place.

GHSCSE Student in the News

Naresh Sundar Rajan (MS’11), computer science, has been accepted with a National Institute of Health (NIH)-funded research assistantship in the PhD program in bioinformatics at the University of Utah in Salt Lake City. He ascribes much of his acceptance success to the project on grid computing that he completed for the computer architecture course, as he will be implementing a grid for the Utah research program.

University College Dean’s Award

Zachary Thomas Kisling (BS’11), computer science, received the University College Dean’s Award at the Honors Convocation in April 2011.

2011 Graduation Honorees

The following received honors at Commencement:

Sean Francis Milachouski (BA’11), mathematics, magna cum laude
Zachary Thomas Kisling (BS’11), computer science, cum laude
Kamil Svrdlik (BS’11), computer science, cum laude
JeVaughn DeLane Thomas (BS’11), information technology, cum laude
Fred Clark, Jr. (BSEE’11), cum laude
Jose Estevao Santos Dias (BS’11), information technology, cum laude
Karim Haoujine (BS’10), information technology, cum laude

Kudos to Student Interns

The following GHSCSE students have interned at various corporations:

Bharat Ramchandani (MS’12), management information systems, completed curricular practical training (CPT) in spring 2011 at BUNGE Limited (White Plains, N.Y.), where he worked as project manager - application development. He worked on a business application for the Trade Structured Finance (TSF) group using Rational Unified Process (RUP) methodology and Unified Modeling Language (UML) standards. This project also features integration of TSF application with downstream accounting system to allow journalizing and posting of accounting entries.

Sruthi Garikipati (MS’11), management information systems, completed an internship at Omgeo LLC, which provides automated software solutions to its clients for easier trade processing. As a technology associate intern, her responsibilities included process administration, documentation for SAS70 and internal audit operational deliverables for the infrastructure and technology services team. To ensure information security, she had to recertify user accounts and decommission the unnecessary accounts so that there is no unauthorized access. SAS70 control-testing processes are implemented by finance-related service organizations to audit and control the technology-related internal processes. Garikipati had to make sure that there is proper and the most updated documentation of these control tests according to the procedure that was being implemented. She was also required to maintain these documents on the SharePoint site of the team.

Shashank Mallampeta (MS’11), management information systems, worked as a systems engineer at Network Doctor, Inc. His work involved building and maintaining IT infrastructure on the Cloud, more specifically on virtual hypervisors like VMware and Xenserver. Mallampeta needed to gather requirements from the company’s new customers for business software, hardware resources and total number of users and licenses to be hosted on the systems. He used standard benchmarks for implementing virtualized machines, storages and application software on the Cloud to specify the computing requirements and customize the systems. Mallampeta was also involved in research topics like hyper-threading on Cloud computing in order to obtain optimum performance and efficiency on Cloud functionality. This CPT was supervised by Gertrude Levine, professor of computer science.

Jeffery Loitessaint (BS’11), information technology, developed a website for the nonprofit organization, Morris County Jaycees (http://www.morriscountyjaycees.com), where he could apply various methods he learned from different information technology courses and used the latest Web-development technologies.

Interns at Network Doctor

Highly Appreciated

Local businesses recognize the invaluable contributions of GHSCSE students and alumni to their organizations. David Birk, partner of Network Doctor, an IT-support and network consulting company in Englewood Cliffs, N.J., recently wrote about his experiences.

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Student Capstone Projects Completed Under NAWCAD Education Partnership Agreement

FDU signed an education partnership agreement with the Naval Air Warfare Center Aircraft Division (NAWCAD) in January 2010. The partnership provides FDU students and faculty the opportunity to work with the Naval Air Systems Command (NAVAIR) engineers on engineering and scientific issues related to naval aviation. The partnership also provides students with internships and employment opportunities with the Navy.

NAVAIR has awarded GHSCSE a total grant of $21,000 to work on three projects in the 2010–11 academic year. Melvin Lewis, senior lecturer of engineering technology, serves as the overall supervisor for all projects. Bernard Lefkowitz, associate professor of electrical and mechanical engineering and coordinator of mechanical engineering technology program; Gertrude Levine, professor of computer science; Harvey Lowy, associate professor of computer science and management information systems; Kalyan Mondal, associate professor of electrical engineering and coordinator of information technology program; Peter Schaeffer, physics lab supervisor, School of Natural Sciences; and Reji Joseph, assistant engineering lab director, advise students working on the projects.

Siddiq Ahmed (BSEE’11), Michael Irene (BSEE’11) and Corey Michael Sigur (BSEE’11) used LabVIEW to complete the project titled “T-26 Common Instrument Panel.” Kevin Bonner (MS’12), management information systems; Martin Granger (MS’12), computer science; and Omar Rondlyn Scott (MS’11), computer engineering, developed “System Synthesis Model,” a project involving database software. Roland Kekelia (BSMET’12) and Zack Rubinstein (BSMET’12) performed actual strength tests to propose a better “Donut Wire Support (E-28).”

Outreach Program News

Eight BCA Students Completed Senior Experience

GHSCSE faculty mentored eight Bergen County Academies (BCA) seniors: Alec Benzer, Mark Fayngersh, Vikram Jayashankar, Alex Kim, Eric Lee, Robert Lin, Yumi Song and Alfred Tan. As in the past, the students interned at FDU every Wednesday through the 2010–11 academic year. Students worked with FDU faculty on various projects and topics, including an autonomous jeep vehicle, digital signal processing, adaptive signal processing, image processing, communications, neural networks, fuzzy logic, cryptography and VHDL programming. FDU mentors include Zong Chen, associate professor of computer science and management information systems; Mark Farag, associate professor of mathematics; Melvin Lewis, senior lecturer of engineering technology; Zhiwei Mao, assistant professor of electrical engineering; Kalyan Mondal, associate professor of electrical engineering and coordinator of information technology program; Howard Silver, professor of electrical engineering and deputy director of engineering, engineering technology and information technology programs; Alfredo Tan, director of GHSCSE; and Hong Zhao, assistant professor of electrical engineering. The students also attended afternoon technical seminars presented by FDU faculty members and other speakers.

GHSCSE Welcomes Three New Freshmen from Outreach Efforts

GHSCSE takes pride in its involvement with community outreach programs. This year, three new students from the outreach programs are highlighted:

FIRST Robotics — Joshua Morris (BSEE’15), Ewing, N.J.
For Inspiration and Recognition of Science and Technology (FIRST) Robotics serves as a catalyst in inspiring young students to pursue careers and become leaders in science and technology. FIRST hosts numerous robotic competitions nationwide, and teams from all over the nation and world meet to compete. FDU provides up to $5,000 in scholarships per year to students who competed in a FIRST high school team and are admitted to the University. Melvin Lewis, senior lecturer of engineering technology, has been actively involved with FIRST Robotics New Jersey and New York competitions as a robot inspector for more than (continued)
nine years. Gonzalo Perez, coordinator for student recruitment and career development of GHSCSE, has attended the competition for five years, promoting the GHSCSE programs and scholarships that FDU has made available to the FIRST students.

ACE Mentoring Program — Muhammad-Hatim Azly (BSCET'15), Teaneck, N.J.

Architecture, Construction and Engineering (ACE) is an organization that helps young students pursue careers in those fields. One critical aspect of achieving this goal is to appeal to and mentor minority and female students. Gonzalo Perez, coordinator for student recruitment and career development of GHSCSE, was an active ACE mentor this past academic year, regularly attending ACE workshops in Teaneck (N.J.) High School. FDU was honored by the ACE mentoring program on June 9, 2011, in Newark, N.J. Perez and Melvin Lewis, senior lecturer of engineering technology, accepted the honor and thanked the ACE organization for its great efforts in helping students achieve their goals in architecture, construction and engineering. FDU provides up to $5,000 in scholarships per year to students who participate in an ACE mentoring program and are accepted to the University.

TEOP — Ayah Hassan (BSEE'15), Union City, N.J.

Technical Enrichment and Outreach Program (TEOP) is GHSCSE’s very own outreach program. It runs for 12 weeks per semester, and more than 90 students attend the program every year. Financially disadvantaged students as well as underrepresented minorities attend the program free of charge, thanks to a generous donation from Gregory Olsen (BS’66, BSEE’68, MS’68) and many corporate donors. The program focuses on lectures as well as hands-on projects in the fields of engineering, engineering technology, computer science and information technology. Students completing the TEOP and admitted to a GHSCSE academic program may receive a scholarship up to $10,000 per year. Several faculty and staff assist throughout the 12 weeks to ensure a positive learning experience for the students.

Alumni News

Prestigious Lamport Research Award to Alumnus Avi Ma’ayan

Mount Sinai Medical Center in New York City recently bestowed its prestigious 2011 Dr. Harold and Golden Lamport research award to Avi Ma’ayan (BS’97, MS’01), computer science, assistant professor of pharmacology and systems therapeutics. The Ma’ayan Laboratory applies computational and mathematical methods to study the complexity of regulatory networks in mammalian cells. The award includes a monetary prize of $9,000.
Joseph L. Muscarelle, Jr. Honored at Charter Day

[Excerpted from the Alumni Association website]

Joseph L. Muscarelle, Jr., retired chairman of the board, Jos. L. Muscarelle, Inc., and former FDU trustee was honored at FDU’s 22nd Annual Charter Day on June 3 at the College at Florham. Muscarelle and his company recently donated more than $250,000 to maintain the Muscarelle Center for Building and Construction Studies, home of the engineering and engineering technology programs — the building which they built and donated to FDU in 1975. (http://view.fdu.edu/default.aspx?id=7493)

Addressing the attendees, President J. Michael Adams said, “Your generosity gives students the opportunity to succeed and helps to drive the University’s growth and achievements.”

“I have great admiration for your wish to be a part of someone else’s future,” said Angelica Richardson, BA’11, political science, who addressed the attendees on behalf of FDU students. “You see the potential in students and provide them the opportunities, both in financial support and mentorships, to excel. I am deeply grateful to you for allowing this to be a real-life success story for me.”

Muscarelle’s son, John, president, Jos. L. Muscarelle, Inc., and member of the FDU NOW campaign steering committee and the advisory board of the Silberman College of Business, served as chair of the Charter Day Executive Dinner Committee. Speaking of his father’s many achievements as a business leader and active volunteer, he said, “To me, and I think my two brothers and two sisters would agree, he was just Dad — a tireless worker who let his actions do his talking. He was never a man to just talk. He always did. He led by example. He had the saying ‘Just do it!’ way before Nike did.”

Alumni Links …

[This is a new column where we would publish the names and affiliations of our alumni as they become available to us. We expect this column to be useful for current students and alumni. The list will be updated and a new/updated set of names will appear in our next edition. Please let us know of anyone we missed so that we can include them in a future issue. — Editors]

‘60s

‘70s
Sung Mo “Steve” Kang (BSEE’70), chancellor, University of California at Merced, Merced, Calif. [http://faculty.ucmerced.edu/skang/index.html]
Laura Mayer (BSME’76), senior product development engineer, ASCO Valve, New York City [http://www.linkedin.com/pub/laura-mayer/11/ab3/b45]
Christine King (BSEET’76), former CEO, AMI Semiconductor, Pocatello, Idaho [http://www.fdu.edu/newspubs/magazine/05ws/king.htm]
Byron DeMott (BS’76, MS’80, computer science), owner, Detectors Laser Products, Portland, Ore. [http://www.linkedin.com/in/byrondemott]
Stephen Woelfer (BS’79, physics and mathematics), principal member of technical staff, AT&T Labs, N.J. [http://www.linkedin.com/in/swoelfers]

‘80s
Suzanne K. McIntosh (BS’86, MS’88, computer science), secure software engineer, IBM Research, Hawthorne, N.Y. [https://researcher.ibm.com/researcher/view.php?person=us-skanjac]
Giovanni Cintorrino (BSEE’87), director of worldwide sales, Arrive Technologies, New York City [http://www.linkedin.com/pub/giovanni-cintorrino/2/b57/1b8]
Christopher Donnelly (MSEE’88), configurable platform manager, Intel Corporation, Phoenix, Ariz. [http://www.linkedin.com/in/christopherdonnelly]

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Program Updates

EAC-ABET Reaccredits BSEE Program
The BS in electrical engineering program was reviewed by an EAC-ABET team in fall 2010. During the exit meeting, the team praised the program’s outcome assessment as the best they have ever seen throughout its many accreditation visits. The program has been reaccredited until September 30, 2017.

University College Math Initiative Launched
Alfredo Tan, director of GHSCSE; Mark Farag, associate professor of mathematics; and David Haas, lecturer of mathematics, have taken several major steps in implementing the Math Initiative. In particular, they have developed and implemented a complete process for assessing the Quantitative Analysis Competency for all majors in University College: Arts • Sciences • Professional Studies. They also incorporated computer-aided instruction software into the developmental and regular math courses with the goals of enhancing student learning, improving student retention and conducting learning-outcomes assessment. Moreover, student-peer tutoring sessions have been offered for several
mathematics courses, which complement the tutorial services provided to the students by FDU’s Center for Academic Student Services. A math center with appropriate staffing will be established next.

Information Technology Courses Introduced

Gertrude Levine, professor of computer science; Kalyan Mondal, associate professor of electrical engineering and coordinator of information technology program; and Vasudevan Janarthanan, assistant professor of information technology and program coordinator of information technology program, FDU-Vancouver, collaborated on developing the contents of INFO4278 Operating Systems and INFO4891 Network and Information Security courses, which conform to the proposed ACM 2008 model curriculum on information technology. The courses have now been added to the BS in information technology curriculum.

New Interdisciplinary Minor in Computer Forensics Initiated

Starting fall 2011, a new minor in computer forensics is being offered to criminal justice and information technology majors. Kalyan Mondal, associate professor of electrical engineering and coordinator of information technology program, and Alfredo Tan, director of GHSCSE, collaborated with Robert Vodde and Patrick Reynolds, director and assistant director, respectively, of the School of Criminal Justice and Legal Studies, to develop this minor.

IT Program News from FDU-Vancouver

All stages in the quality-assurance process established under the Degree Authorization Act of British Columbia, Canada, were recently completed for the BS in information technology program at FDU-Vancouver. Based on the review by the Degree Quality Assessment Board, the Ministry of Advanced Education consented on continued offering of the program. Christopher Capuano, university provost and senior vice president for academic affairs who was then vice provost for international affairs, spearheaded the effort toward obtaining the ministerial consent in cooperation with Cecil Abrahams, campus provost, FDU-Vancouver; Vasudevan Janarthanan, assistant professor of information technology program and program coordinator of information technology program, FDU-Vancouver; Jonn Martell, director of technical operations, FDU-Vancouver; Alfredo Tan, director, GHSCSE; and Kalyan Mondal, associate professor of electrical engineering and coordinator of information technology program. Tan, Mondal and Janarthanan also participated in the annual review of the program with representatives from the Ministry of Advanced Education and conducted an outcome assessment for the program.

Janarthanan started a lecture series for the Information Technology (IT) Club at FDU-Vancouver in summer 2010. Three lectures have since been held, with invited experts from both industry and academia. He also has been on the audit team of the Private Career Training Institutions Agency of British Columbia (PCTIA-BC) since winter 2010, serving as the subject expert (IT specialist) for the audit of five private colleges in British Columbia, Canada.

Computer Science IAB Meeting

FDU’s Computer Science Industrial Advisory Board (CSIAB) met on November 10, 2010. Attendees included Paul Donoghue (BS’79, accounting; MBA’86), president, Highlands Technologies, Inc.; Alan Klayman (BA’83, computer science), Student at the Wheel, My Income Strategy; Avi Ma’ayan (BS’97, MS’99, computer science), assistant professor of pharmacology and system therapeutics, Mount Sinai Medical Center; Suzanne McIntosh (BS’86, MS’88, computer science), secure software engineer, IBM Research; and Jonathan Stanton, director, New Media at Hudson River Sloop Clearwater. Gertrude Levine, professor of computer science, introduced Ma’ayan as a new board member. The CSIAB members noted the launching of the GHSCSE newsletter and education partnership agreement with NAWCAD and suggested easier access to such information. Based on the fall 2010 EAC-ABET accreditation visit experience, Alfredo Tan, director, GHSCSE, suggested reducing the number of BS in computer science program objectives from six to three, keeping only the long-term objectives. The CSIAB agreed in principle to the proposed objectives and would let computer science faculty finalize the wordings. The CSIAB reaffirmed adopting CAC-ABET’s student outcomes as the student outcomes of the BS in computer science program. Updated syllabi of two courses, Introduction to Computer Science and Computer Networks, were distributed and discussed. CSIAB members suggested introducing research papers and computer security early in the student curriculum. A course on Android and iPhone mobile platforms was also suggested.

Electrical Engineering IAB Meeting

The 2010–11 Electrical Engineering Industrial Advisory Board (EEIAB) meetings were convened by Howard Silver, professor of electrical engineering and deputy director of engineering, engineering technology and information technology programs. Apart from faculty, industry representatives Laura Gross (BSEE’90), Verizon; Eric Stoll, IT&T Labs; William Pollak (BSEE’90), New Jersey Transit; and Jules Insler, BAE Systems, attended the meetings. The faculty reported that the recent BSEE program re-accreditation visit by an EAC-ABET team went very well. The EEIAB agreed on reducing the number of program objectives from five to three and keeping only those considered as long-term objectives. It was recommended that analog oscilloscopes be used in an introductory electronics lab and digital units afterward. Some changes to the communications course sequence were approved so students can acquire additional exposure to the theory of probability and its applications. It was also agreed that only MATLAB programming will be taught in the first undergraduate programming course so engineering and engineering technology students can focus on and master one programming language well. The second programming course will impart the knowledge of C/C++ as a prerequisite for the Microprocessor System Design II course.

MSEE program outcome assessment was conducted fulfilling the accreditation requirements of the Middle States Association of Colleges and Schools. In particular, three program outcomes were developed and an assessment process was initiated. Current graduate students enthusiastically approved the program outcomes. Faculty also proposed the introduction of bioengineering courses in the master of science curriculum.
Information Technology IAC Meeting
The Information Technology Industrial Advisory Committee (ITIAC) meetings were held in fall and spring of the academic year 2010–11. In addition to the faculty, Mitchell Mond, vice president, Ness North America; Loyd Bacani, director of delivery, Ness Technologies, Inc.; Bruce Fogel, team leader – finance and human resources systems integration, Affinity Health Plan; Susan Fowler, City Harvest, Inc.; Jeffrey Moskowitz, Greystone Intelligence; and Walter Schneider, an engineering manager of BAE Systems, reviewed the IT program and provided many thoughtful suggestions for further improvement. A new minor in computer forensics will benefit criminal justice majors by making them technology savvy and will open security technology job avenues to the IT majors. The ITIAC members suggested introducing database report generation, virtualization, active directory, websphere, cloud computing and Java in the curriculum, if not already available. A new Java course will be introduced that can be taken as an elective by IT majors. BSIT students still will continue to learn C++ so that they have a strong object-oriented programming background. Database report generation in SQL is already covered in the database systems course. Obtaining professional certification was also advocated by the ITIAC members. Several members proposed creation of online portfolios of students, which can be used as a talent pool by the prospective employers.

Technology Program IAC Meeting
The Industrial Advisory Committee (IAC) for the Mechanical Engineering Technology program met recently with FDU faculty. The committee heard about FDU’s project with the U.S. Navy on aircraft arresting gear redesign, which resulted in a student paper presentation in Lakehurst, N.J. A centrifugal pump/fluid flow trainer costing $25,000 was recently purchased and will be used for fluid mechanics experiments. Also discussed were the upcoming accreditation (2013) visit and the faculty’s preparation for that visit, the optical technology course, internship availability in the HVAC industry and how the AutoCAD course should incorporate certain advanced topics.

The IAC for the electrical engineering technology (EET) program recently met and approved the reduction of EET program objectives from six to three, dropping the short-term objectives. Discussions included emphasizing the importance of the actual process of building a component or a system, combining two EET courses in analog IC design and adding an advanced nonlinear electronics course to fill the vacated slot.

Faculty members also described the outreach program, where they teach high school students about microcontrollers and programmable logic controllers (PLCs). Melvin Lewis, senior lecturer of engineering technology, described other GHSCSE outreach programs as well as its SETI project and the U.S. Navy capstone project involving the EET students. Here, too, a student paper was presented at Lakehurst. Also discussed were some entry-level jobs available at New Jersey Transit involving substation electronics, and an invitation was extended to the EET students to tour a New Jersey Transit control-room facility.

Laboratory Upgrades
All laboratory computers were refreshed with the Windows 7 operating system. Several software tools including Code Composer Studio V4 (used in EENG7852 Digital Signal Processing using C on DSP), CodeWarrior integrated development environment (IDE) V5.9.0 (used in EENG3288 Microprocessor System Design II), etc., were also upgraded to make them compatible with the new operating system.

New equipment, hardware and software systems were purchased to upgrade the civil, construction, electrical and mechanical engineering technology laboratories. Notable among those are the following:

DC and Stepper Motor Electromechanical Setups enable students to learn about the applications of DC and stepper motors. The motor drives are controlled by MicroLogix 1200 programmable logic controller (PLC).

PumpLab is a mobile test set for the complete exploration of flow and fluid machinery fundamentals. It is fully instrumented for flow, head, power and efficiency analyses. It utilizes a data-acquisition system.

Concrete Compression Machine is used to measure the compressive-load capacity of concrete with good accuracy, compactness, portability, versatility and dependability. It is equipped with a Digital Load Indicator, which allows students to control all the operations of the machine.

Triaxial Testing System is specifically designed to fully automate and monitor the complete testing cycle of various triaxial and un-
confined compression tests. It has a microprocessor-based Digital Master Loader, a stepper-motor driven compression frame with built-in, four-channel data-acquisition system for stress, strain, pour-water pressure and volume-change measurements.

*V Flash 3D Printer* allows students to build complete durable plastic part models using a photo-curable acrylic plastic and then to harden them by using a specifically designed imager. *Mechanical Process Simulator Setup with a MicroLogix PLC* is used to study the sequential, on/off control of typical production lines involving linear position control.

**Faculty Highlights**

**Gertrude Levine — 2010 University College Outstanding Teacher**

Gertrude Levine, professor of computer science, was presented the 2010 University College Outstanding Teacher award on September 1, 2010. Students and faculty of GHSCSE are very proud of her outstanding accomplishments, which include developing and teaching several excellent computer network and security courses. Students are especially indebted to her for guiding them on their internships and practical training.

**Corporate and Foundation Relations Grants Received**

GHSCSE has received a generous donation of $27,261, including $8,000 for scholarships, from the Mechanical Contractors Association of New Jersey (MCANJ) to support the B.S. in mechanical engineering technology program in 2010–11 academic year. This raises the total donation received from MCANJ to $336,782 over a period of eight years. Alfredo Tan, director of GHSCSE, and Melvin Lewis, senior lecturer of engineering technology, are the director and the deputy director, respectively, of the MCANJ/FDU partnership program.

Tan and Dritan Bitincka, former lab director for computer science, have successfully obtained two servers worth $60,000 from IBM to help establish an iLab (Internet Lab). This virtual lab will allow students and faculty to remotely access the computer resources in the GHSCSE computer labs and support the online courses.

**International Articulation Visits and Visitors**

Kalyan Mondal, associate professor of electrical engineering and coordinator of information technology program, and Zong Chen, associate professor of computer science and management information systems, visited several colleges and universities in India (located at Hyderabad, Bengaluru and Kolkata) and in China (located at Nanjing, Jhejiang, Yangzhou, Ningbo, Wenzhou and Shanghai). The goal of the summer 2010 visit was to promote the GHSCSE programs and to establish articulation agreements with these institutions.

Subsequently, a team of faculty members and administrators from Zhejiang University of Technology (ZJUT), headed by Wang Xiaocun, chairman of ZJUT’s University Affairs Committee, visited FDU and continued discussions on possible articulations.

Rajesh Kumar, professor of global education, Nanjing University of Aeronautics and Astronautics in Shanghai, China, met with Christopher Capuano, University provost and senior vice president for academic affairs; Alfredo Tan, director of GHSCSE; and Mondal for various student exchange programs, including 2+2 and 3+1+1 year programs in engineering and computer science. The emphasis was making the articulated programs cost effective for the students.

A team of five academicians and administrators headed by Sankaran Raghunathan, dean, National Management School at Chennai, India, visited FDU under the auspices of the Indo-American Chamber of Commerce and discussed possible cooperation between FDU and private Indian engineering universities and colleges. Barbara Heissenbuttel, FDU’s director of international admissions operations, hosted the visitors. They indicated a great
demand for training BS degree-holders teaching in the new engineering schools with study loans available from Indian banks.

M. Alimullah Miyan, founder and vice chancellor of International University of Business, Agriculture and Technology (IUBAT) in Dhaka, Bangladesh, was the most recent visitor. Jason Scorza, vice provost of international education, hosted Miyan’s meeting with Tan and Mondal. The issue of training IUBAT engineering instructors was brought up. Scorza will explore possibilities of creating two visiting-faculty positions for this purpose.

**GHSCSE Seminar Series Continues**

GHSCSE has conducted a seminar series on the latest developments in electrical engineering, computer engineering, computer science and related fields since spring 2009. Zhiwei Mao, assistant professor of electrical engineering, and Hong Zhao, assistant professor of electrical engineering, coordinate the series. Twenty-one seminars on contemporary topics have been conducted since its inception, and 10 seminars were presented in the 2010–11 academic year by seven internal speakers and three external ones. The internal speakers and their presentations are as follows:

Hong Zhao, “Network Steganography”;
Mark Farag, associate professor of mathematics, “Cryptography via Hill Ciphers Over Near-fields”;
Yongming Tang, associate professor of computer science, “Formalizing UML Activity Diagrams Using Concurrent Regular Expressions”;
Kalyan Mondal, associate professor of electrical engineering and coordinator of information technology program, “Digital Speech and Musical Sound Processing”;
Howard Silver, professor of electrical engineering and deputy director of engineering, engineering technology, and information technology programs, “Neural Networks in Electrical Engineering”;
Mohit Sarveiya (BS’11), computer science undergraduate student, “Creating Web Applications with ASP.NET AJAX”;
Gloria Reinish, professor of electrical engineering, “Electrical Properties of Bone.”

The external speakers — all computer science faculty members at Montclair State University — and their presentations are as follows:

Michael Oudshoorn, “Towards Autonomic Computing: Goals and Challenges”;
Ming Yang, “Advanced Multimedia Coding, Processing, and Communication”;
Stefan Robila, “New Directions in Spectral Image Processing.”

**IEEE North New Jersey Chapter Seminars**

Hong Zhao, assistant professor of electrical engineering, organized three seminars for the IEEE North Jersey Section Computer Society Chapter under the sponsorship of FDU: “Next Generation Passive Optical Network Standard and Field Trial” by Yuanqiu Luo, FutureWei Technologies Inc., Bridgewater, N.J.; “Image Analysis Technique and Its Applications” by Zhe Wendy Wang, IRIS ID Inc., Cranbury, N.J.; and “Learning and Mining on Complex Networks” by Tina Eliasii-Rad, Department of Computer Science, Rutgers University, New Brunswick, N.J.


**More Publications and Presentations**

Faculty include Zong Chen, associate professor of computer science and management information systems; Mark Farag, associate professor of mathematics; Vasudevan Janarthanan, assistant professor of information technology; Gertrude Levine, professor of computer science; Zhiwei Mao, assistant professor of electrical engineering; Kalyan Mondal, associate professor of electrical engineering and coordinator of information technology program; Hong Zhao, assistant professor of electrical engineering; and Vladimir Zwass, distinguished professor of computer science and management information systems; deputy director of computer science, management information systems, e-commerce, and mathematics programs.


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For Further Information
GHSCSE student projects and competitions:
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Zwass in the News …

Vladimir Zwass, distinguished professor of computer science and management information systems; deputy director of computer science, management information systems, e-commerce and mathematics programs, delivered the keynote speech at the International Symposium on E-Business, Hangzhou, China, as an invited scholar.

A paper published in the *Journal of Management Information Systems*, of which Zwass is the editor-in-chief, won the Best Paper Award from the Association for Information Systems for 2010, one of five annual awards presented globally.

Zwass is also the series editor of *Advances in Management Information Systems (AMIS)* that includes the following recent monographs published by M.E. Sharpe, Inc.:

