



# THE FINAL DRAFT

VILLANOVA UNIVERSITY

COLLEGE OF ENGINEERING

FALL 2002 ~ NEWSLETTER

VOLUME 23 ISSUE 2

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## MESSAGE FROM THE DEAN

### DR. BARRY JOHNSON

This is my first message in The Final Draft newsletter as Dean of the College of Engineering. I must admit that when I graduated from the College in 1970, I



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never thought that I would return to Villanova in this capacity. I guess that the education I received here not only prepared me well for a life in engineering, but

also helped me to eventually recognize the greater personal satisfaction in preparing others for such a rewarding vocation.

The College of Engineering already has established a proud heritage and a strong track record of distinctive accomplishments in engineering education and research. Its reputation has grown significantly in recent years, as evidenced by its ranking among the top ten undergraduate engineering programs in the nation for schools whose highest degree is a bachelor's or master's (*U.S. News & World Report*, 9/13/2002). I am convinced that the great strength of our College comes from its Augustinian values and the faculty and staff who live, support and promote these values. These are the true heroes of its success, and I am honored to have the opportunity to lead them as the fifth Dean.

As we move into a new era, our intent is to accelerate progress through a planned process of continuous improvement. To this end, I recently announced a reorganization of the College's top

personnel, including the formation of three associate dean positions (Academic Affairs, Student Affairs and Research & Development) and two advisory groups. The College of Engineering Leadership Council will have a membership consisting of deans, staff, department chairs, research center directors and endowed chairholders who will be responsible for charting the College's strategic direction. The Dean's Advisory Board, comprised of key leaders from academia and industry, will provide strategic advice, benchmark information, networking opportunities and critical reviews of our programs. We hope to raise the level of engineering education by implementing a system of outcomes assessment based on a standard of performance excellence. We will identify our College's strengths and weaknesses, and relentlessly improve both.

The College of Engineering has great potential. We want to effectively exploit that potential to turn out the best graduates possible, graduates who will not only be able to compete better within their disciplines, but who are adults in the true sense--intellectually, emotionally and spiritually. The Leadership Council will help us set a compelling vision of where we want to go and what resources we have to develop to get us there. Villanova has a lot of substance, but we can do a better job.

### COMMENCEMENT 2002

May 19, 2002, marked the accomplishments of the ninety-fourth graduating class of engineering students from Villanova University. The class boasted 171 undergraduates, 44 of whom received honors, and 19 Master's candidates.

(See *Commencement 2002*, page 3)

### Distance Learning FEE Review Course

The Fundamentals of Engineering (FE) exam is the first step in the process of obtaining a Professional Engineer's (PE) license. An engineer receives the Engineer in Training (EIT) certificate for passing this exam. Every year, thousands of students take this exam. The exam can also be taken any time after graduation. Currently all junior and senior engineering students are eligible to take this test; however, the certificate is not awarded until after graduation. More and more students from every major are electing to sit for this exam. In 1997, the test was revised to include discipline specific testing in the afternoon. All students take the same general exam in the morning and can choose whether to take a general afternoon exam or an exam specific to their discipline.

The College of Engineering has always encouraged its students to take the exam while still in school. To assist the students, the College offers a refresher course in the spring semester which is taught by faculty who have expertise in specific areas. Alums and others may also register to take the course.

This year, the College had a unique request. Two Navy agencies, inquiring separately, wanted us to offer our course to working engineers at the Naval Surface Warfare Center Carderock Division and the Navy Engineering Field Activity-NE. A new approach to standard classroom lectures had to be provided. Utilizing the Video Teleconferencing (VTC) classroom in Tolentine Hall was considered.

(See *FEE*, page 3)

## CENTER FOR ADVANCED COMMUNICATIONS

The Center for Advanced Communications (CAC) continues to attract and receive industrial and federal funding. Currently, the CAC has research funding from the Boeing Company, Smarter Agent Inc., Rajant Corporation InterDigital Communications, the Air Force Research Lab, the Office of Naval Research, and DARPA. The CAC annual meeting was held on the Villanova University campus on October 30, 2002, where many companies in the Delaware Valley had the opportunity to listen to the technical presentations given by the CAC professors.

The CAC has on-going collaborative research efforts with Drexel University, University of Pennsylvania, Lafayette College, the Naval Surface Warfare Center Carderock Division (NSWCCD), and Ben Franklin Technology Partners of Southeastern Pennsylvania

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## INSTITUTE FOR ENVIRONMENTAL ENGINEERING RESEARCH

The Institute for Environmental Engineering Research (IEER), established in 1996, is a multi-disciplinary, applied research organization involving professionals from industry and government, as well as faculty and students with a common commitment to the research, development, and educational aspects of the solution to complex environmental problems.

Since the solutions to complex environmental problems require a wide range of technical expertise, the full experience of the College has been called upon to address the varied nature of the projects undertaken to date, including 16 professionals and 22 students.

IEER has hosted 14 symposiums and short courses in the fields of stormwater management, river systems analyses, and industrial and occupational safety auditing. A wide range of short courses on various topics related to emerging aspects of the worldwide environmental movement are planned for the future.

IEER has become a Ben Franklin Technology Partners (BFTP) "Center of Excellence" and is a founding member of the "Pennsylvania Consortium for Interdisciplinary Environmental Policy". In 2002, the IEER is the BFTP "provider of choice" for environmental services in southeastern Pennsylvania.

The overall path forward includes continual and expanding involvement throughout the University since the solution to complex environmental problems requires a full range of social, political, economic, medical, legal, scientific and engineering expertise.

## NEW FACES IN THE COLLEGE

**Helen Tursi** has joined the College of Engineering as Administrative Coordinator for the Dean of Engineering. **Karen Cunningham** has become secretary in the College's new Office of Student Affairs. **Janice**

**Moughan** was hired as the Administrative Coordinator in the Center for Advanced Communications (CAC) to assist Dr. Moeness Amin, who has accepted the position of Director of the CAC.



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Left to right: **Karen Cunningham, Janice Moughan, and Helen Tursi**

Two new Assistant Professors joined the Department of Civil and Environmental Engineering in August, 2002. **Dr. M. Metin Duran** will be teaching environmental engineering, microbiology, and fluids courses at Villanova. His research interest is anaerobic biological treatment. **Dr. A. Emily Parkany**, whose

research is on transportation issues such as travel behavior, data fusion techniques, and pricing mechanisms, will be teaching transportation courses at Villanova. **Clay Emerson** also joined the CE team as a Research Associate working with Dr. Robert Traver on The Villanova Urban Stormwater Partnership.



Left to right: **Dr. M. Metin Duran, Dr. A. Emily Parkany, and Clay Emerson**

(See *New Faces*, page 3)

## NEW FACES (cont'd. from page 2)

The Electrical and Computer Engineering Department completed successful faculty recruitment by adding two tenure track computer engineering faculty. **Dr. Harry Dwyer** joins us as an



Associate Professor with expertise in computer architecture and embedded systems and **Dr. Saresh Kulkarni** joins us as an Assistant Professor with expertise in computer networks.



Left to right: **Drs. Harry Dwyer and Saresh Kulkarni**

**Dr. Rebecca Hoffman** joined the faculty as an Assistant Professor in Mechanical Engineering this fall from the Ford Motor Company, where she was a product design engineer involved with the structural and dynamic analysis of gasoline engines. **Gerard Gambs** and **Tom Harrington**, lab assistants for M.E. 2505, M.E.

Analysis and Design, will be assisting Dr. Chun and Prof. James O'Brien with the student projects of assembling robots for the sophomore competition. **John Wolf** has joined the M.E. department as an Adjunct Instructor to teach the engineering freshman courses, Engineering Graphics and Engineering Analysis.



Left to right: **Tom Harrington, Dr. Rebecca Hoffman, John Wolf, and Gerard Gambs**

## COMMENCEMENT 2002 (cont'd. from page 1)

The 2002 Medallion winners were: **Christopher M. O'Neill, ChE, Colin Smith, CPE, Colin Joye, EE, David J. Quinn, ME, and Peter M. Theisz, CE.**

These students are recognized for their academic performance and meritorious service during their tenure as undergraduates.



Left to right: **Peter M. Theisz, Christopher M. O'Neill, Colin Joye, David J. Quinn, and Colin Smith**

## FEE (cont'd. from page 1)

The Unit Center for Instructional Technologies (CIT) and the College of Engineering have created this state of the art facility. The Navy locations also had VTC capabilities. With the supervision and coordination of **Sean O'Donnell, CPE '00**, College Coordinator for Distance Education, the Fundamentals of Engineering Distance Education (FEDE) review course became reality. Faculty members taught from the College's VTC room and the lectures were broadcast to five remote locations simultaneously. Live interaction between faculty and students, as well as web-based comments, and downloads of lectures and notes, provided a very successful review course.

The College expects to continue in class and VTC delivery of the review course twice a year. The spring semester course runs from January until April, and the summer/fall course begins in July and ends in October. Both courses end just prior to the test date. For more information, contact Sharon Rose-Davis at 610-519-4940 or [sharon.rose-davis@villanova.edu](mailto:sharon.rose-davis@villanova.edu).

## THE SIXTEENTH ANNUAL ECE DAY

This year the Villanova Electrical and Computer Engineering Day (ECE Day) was held on November 7. The theme of the day was product development. Charles Griswold, from Panasonic, spoke about digital TV and related technologies. Greg Nungester discussed his work and products at Mattel/Tyco toys. Skylar Woodward told us all about his work at Yahoo related to the Instant Messenger, and his earlier experiences at NCCi. Peter Bressler, a renowned industrial product designer, discussed the product development process and how he interfaces with engineers. We also had an after dinner talk by Dean **Dr. Barry Johnson, ME '70**. After the Dean spoke there were poster presentations by the ECE seniors describing their "senior projects".

## ANNUAL DEAN'S AWARDS DINNER

The Dean's Awards Dinner was held at the Overbrook Country Club on April 26, 2002. At the dinner, Awards for Meritorious Service and Academic Excellence were given to graduating seniors, and the Farrell Award was given to **Dr. Amy Fleischer**. The Farrell Award is given to a faculty member who has demonstrated personal concern for students and exceptional dedication to the College.



2002 Dean's Award Recipients for Meritorious Service

The Award for Meritorious Service was established in order to recognize the exceptional service unselfishly provided to the College of Engineering by undergraduate engineering students. This award is given to seniors who have been active in an engineering organization and have given significant and quality service to the College over an extended period of time.



2002 Dean's Award Recipients for Academic Excellence

The Award for Academic Excellence was established in order to recognize the outstanding academic performance of undergraduate engineering students. This award is given to seniors with a cumulative grade point average of at least 3.50.

CIVIL AND ENVIRONMENTAL  
ENGINEERING

## FACULTY

**Dr. Shawn P. Gross** was nominated for the 2002 American Concrete Institute (ACI) Walter P. Moore, Jr. Faculty Achievement Award. Dr. Gross is an active member of the ACI, where he serves as secretary of the Committee 423 – Prestressed Concrete, and as a voting member of Committee 363 – High Strength Concrete, and Committee E803 – Faculty Network Coordinating Committee.

## NOTEWORTHY

❖ The William B. Fergusson Memorial Lecture featured Dan McNichol, specialist on the Big Dig in Boston, in the Connelly Center Cinema on April 5. **Dr. Lee Christensen** introduced the guest speaker and gave a background on the late Dr. William B. Fergusson.

❖ The CEE department and the Pennsylvania Department of Environmental Protection hosted a seminar entitled *New Direction in Stormwater Management*. The seminar drew over 200 attendees, with an additional 40+ watching real time over the internet. You can watch the seminar through the VUSP website <http://www.engineering.villanova.edu/cee/vusp/>.

ELECTRICAL AND  
COMPUTER ENGINEERING

## FACULTY

**Dr. Moeness Amin** was appointed the 2003 IEEE Distinguished Lecturer for the Signal Processing Society. His joint authorship of a paper with his graduate student Ms. Lin He on Adaptive Wireless Channel Equalization received the Best Paper Award at the 1st IEEE International Symposium on Signal Processing and Information Technology (ISSPIT). Dr. Amin is the Technical Chair of the 2nd ISSPIT, which will be

(See ECE, page 5)

## ECE (cont'd. from page 4)

held in Morocco, December 2002. He serves on the Franklin Institute Committee of Science and Arts and wrote this year's description of the \$250,000 Bawer Award Solicitation for 2003 on Aerospace and Aviation. Dr. Amin is the Project Director for a DARPA/CTC program on Through-Wall Microwave Imaging. The project involves **Drs. Hoorfar** and **Konyk** from the ECE Department at Villanova University and two professors from the University of Pennsylvania. Dr. Amin is the PI on two on-going federal research projects funded by the Office of Naval Research and the Air Force Research Lab.

**Dr. Ahmad Hoorfar** spent his sabbatical at the NASA's Jet Propulsion Laboratory (JPL) in Pasadena, CA, in the spring 2002 semester. While at JPL he performed research on design and optimization of antennas for NASA's deep-space communication network. He also gave a tutorial on "Evolutionary Computational Techniques in Electromagnetics," to the Antenna Microwave Engineering Group at JPL. While attending the 2002 IEEE AP-S International Symposium held June 16-21 in San Antonio, TX, Dr. Hoorfar presented and/or co-authored five invited papers. In addition, he chaired a session on optimization techniques. He also attended the XXVII General Assembly of the International Union of Radio Science (IURS) held August 17-24 in Maastricht, Netherlands.

**Dr. Bijan Mobasser** presented his Air Force funded research work, data hiding in compressed video, at the AFOSR Signals Communication Program Review workshop at The University of Vermont, June 6-8, 2002. The workshop program is located at [http://www.njcw.org/signals\\_communication.html](http://www.njcw.org/signals_communication.html).

Since 1997, **Dr. Pritpal Singh** and Dr. David Reisner, President & CEO of US Nanocorp, Inc. in Farmington,

Connecticut, have combined resources to attract over \$3.5 million in government contract R&D. This collaboration between the University and an emerging technology company has focused on the use of fuzzy logic methods to accurately determine state-of-charge (SOC) in batteries and state-of-health (SOH) in batteries and fuel cells. In 2002 Villanova and US Nanocorp received the Tibbetts award in recognition of business development as a result of the Small Business Innovation Research program.

## MECHANICAL ENGINEERING FACULTY

**Dr. G. F. Jones** was chosen as the 2002 winner of the American Society of Mechanical Engineers (ASME) Outstanding Faculty Advisor award for ASME Region III on April 14, 2002, at the 2002 Regional Student Conference at Rowan University. Region III is composed of 43 engineering schools including Lehigh, Cornell, Pennsylvania State, and Bucknell Universities, as well as RPI, The University of Maryland, and the U.S. Naval Academy. Dr. Jones has been an ASME faculty advisor for six years.

**Dr. Sridhar Santhanam** has been promoted to Associate Professor.

## NOTEWORTHY

❖ **Drs. J. Walter Harrington, III** and **Philip V. McLaughlin, Jr.** retired from the Mechanical Engineering Department at the end of the summer 2002.

## GRANTS/AWARDS

**Dr. Randy Weinstein**, Chemical Engineering, received a grant titled *Environmentally Friendly Self-Assembled Chemical Engineering Initiated Polymer Films in Carbon Dioxide* from NSF/Vanderbilt for \$38,701. The effects of chain length, pressure, temperature and solvent density of self-assembled monolayers will be explored on the quality (packing density and defects) of films formed.

Dr. Weinstein and Villanova University will be a sub-contractor of Vanderbilt University.

**Dr. Randy Weinstein**, Chemical Engineering, received a grant titled *NSF/REU Supplement* for \$6,000. This award is for undergraduate student support on a proposal already funded by NSF for the exploratory examination of the creation of self-assembled monolayers and surface-initiated polymer films using environmentally friendly supercritical carbon dioxide as a solvent.

**Dr. Rominder Suri**, Civil and Environmental Engineering, has received a grant of \$26,000. from the Pennsylvania Department of Environmental Protection for a chemical assessment of active compounds in water quality samples from Chester County.

**Dr. Robert Traver**, Civil and Environmental Engineering, received a grant titled *VU Stormwater Porous Concrete Demonstration Site* from the PA Department of Environmental Protection (PADEP) for \$85,500. The BMP provides relief to a degraded stream, demonstrating the use and effectiveness of infiltration BMPs. The uniqueness of creating a retrofit versus new construction greatly enhances the importance of the site. A permanent technology transfer, education, and research site will result from the project.

**Frank Falcone**, Civil and Environmental Engineering, Institute for Environmental Engineering Research, received a grant titled *Health Risk Assessment #3* from the Defense Supply Center in Philadelphia (DSCP) for \$20,000. This project is a continuation of the ongoing investigation to provide technical advice and environmental consultations in the area of health risk assessment to the DSCP.

**Dr. Robert Traver**, Civil and Environmental Engineering, received a grant titled *VU Stormwater Porous Concrete Demonstration Site* from PADEP for \$30,000. This award supports the Commonwealth's Nonpoint

Source Program, the Chesapeake Bay 2000 agreement, the Coastal Zone Program, and the effort to assess Growing Greener Grant facilities.

**Dr. Robert Traver**, Civil and Environmental Engineering, received a grant titled *Urban Stormwater Partnership (Phase II)* from PADEP Growing Greener Center for \$340,000. Villanova is forming a directed studies partnership with the PADEP focusing on stormwater research.

**Dr. David Dinehart**, Civil and Environmental Engineering, received a three year grant from NSF for \$225,000. This project will be utilizing viscoelastic polymers in an attempt to reduce the dynamic response of woodframe structures. A faculty member from the University of Delaware will be Co-PI on this project.

**Frank Falcone**, Civil Engineering, Institute for Environmental Engineering Research, received a grant titled *Philadelphia Energy Center (PEC) Project*, from Black & Veat for \$15,000. Villanova consultants will review the project documents and provide an independent and objective opinion as to the technical quality and use of good scientific procedures in generating such documents.

**Dr. Pritpal Singh**, Electrical and Computer Engineering, received a grant titled *Fuzzy Controller for Microbatteries in MEMS Micro Power Supply* from DARPA/Nano for \$85,000. A fuzzy logic-based controller will be designed, culminating in production of several iterations of a prototype Application Specific Integrated Circuit.

**Dr. Ahmad Hoorfar**, Electrical and Computer Engineering, Center for Advanced Communications, received a grant titled *CV Scale Model Antenna Measurements* from Boeing for \$66,000. Villanova will design and fabricate a set of linear polarized antennae for spatial isolation measurements on the scale model. This project is being run

through the Center for Advanced Communications.

**Dr. S. S. Rao**, Electrical and Computer Engineering, received a grant titled *Porting of Voice Compression Algorithms to Digital Signal Processors* from ADT for \$4,800 to develop methodologies for porting voice compression algorithms either already written in 'c' code or conceptualized algorithms to DSP devices.

**Dr. Ahmad Hoorfar**, Electrical and Computer Engineering, Center for Advanced Communications, received a grant titled *CV-22 Scale Model Antenna Measurements* from Boeing for \$75,000. This project encompasses the fabrication of test antennae, the fabrication of scale aircraft structural components and development of electromagnetic models of the CV-22 aircraft. This project is being run through the Center for Advanced Communications.

**Dr. Pritpal Singh**, Electrical and Computer Engineering, received a grant titled *Navy SBIR Phase I* from US Nanocorp for \$12,000. Several tasks have been identified that need to be completed in order to develop a short list of candidate approaches to determine the state-of-health (SOH) of inactivated reserve batteries for further investigation in Phase II.

**Dr. Robert H. Caverly**, Electrical and Computer Engineering, **Dr. Ahmad Hoorfar**, Electrical and Computer Engineering, and **Dr. Moeness G. Amin**, Electrical and Computer Engineering, received a National Science Foundation grant for a project titled "Curriculum Development in Systems for Smart Communications" in their Combined Research and Curriculum development program. The expected total amount of the award for the three-year program is \$429,992. This grant involves two professors from Drexel University and Lafayette College.

**Dr. James Peyton-Jones**, Electrical and Computer Engineering, **Dr. Amy**

**Fleischer**, Mechanical Engineering, and **Dr. Kenneth Muske**, Chemical Engineering, received a National Science Foundation Major Research Instrumentation Grant. The \$328,078 grant supports the project "Acquisition of Fast Response Gas Analysis Equipment for Advanced Automotive Emission Control and Diagnostic Systems" to create a state-of-the-art experimental facility for dynamic measurement, modeling, diagnosis and control of transient automotive emissions. The project is also supported by Ford Motor Company and Johnson Matthey (Catalytic Division).

**Dr. Amy Fleischer**, Mechanical Engineering, was awarded a 2002 Villanova Office of Research and Sponsored Projects Summer Faculty Research Fellowship and Research Support grant. The grant supports her work on "Enhanced Heat Transfer for Circular Jets Impinging on Complex Geometry Surfaces."

**Dr. Edward McAssey**, Mechanical Engineering, received a grant titled *UV Meteor Telescope Thermal Design* from PSI, for \$100,000. Thermal design of the UV Meteor Telescope requires the development of the thermal environment requirements, power budget, a thermal model, and thermal testing. This is Phase II of the project, which will be directed by the Center for Advanced Communications.

**Dr. C. Nataraj**, Mechanical Engineering, received a grant titled *Paul Robert Trumpler Student Scholarship* from Turbo Research Foundation for \$4,500. This grant is for a summer stipend for a graduate student in Mechanical Engineering.

**Frank Falcone**, Civil Engineering, Institute for Environmental Engineering Research, received a grant titled *Metlab for Ben Franklin Partnership* from Metlab Potero Company for \$1,000. Villanova University consulting engineers will assess the chemical, filtration and water management questions of the Metlab Potero Company.

■ **Sara Carlson, CE '02**, and **Mark Blattner, EE '02**, were named Villanova's 2002 Senior Student-Athletic Award Winners.

■ The Ford Motor Company has established a new scholarship for incoming freshmen at Villanova. The scholarship, totaling \$250,000, provides funding for six students to attend Villanova for four years. Incoming freshman **Rachel Karl, CE '06**, has been selected to receive one of the first Ford Motor Company Scholarships. She will receive \$15,000 in aid per year for four years and a summer internship with Ford.

■ Four ECE undergraduate students received Lockheed-Martin's Edward Reese Fellows Scholarships. They are **Lauren A. Sanford, CPE '03**, **Danielle M. DeCristoforo, CPE '03**, **Joseph Girellini, CPE '03**, and **Anthony J. Dina, CPE '03**.

■ The Boeing Scholarship was established for the purpose of providing assistance to students enrolled in the College of Engineering who have demonstrated academic achievement. This year, it was awarded to **James Reifsnnyder, EE '03**.

■ The Professor Joseph J. Hicks University Scholarship was established by Margaret C. and **Robert J. Merkert, Sr., EE, '59**, to provide a partial tuition award to a current or incoming student majoring in electrical engineering that demonstrates financial need and is in good academic standing. **Matthew Kennel, EE '05**, was awarded the scholarship for 2002-2003.

■ **Colin Joye, EE '02**, was awarded an MIT Presidential Scholarship to pursue his master/doctoral studies in electrical engineering.

■ **Stephen Rilli, CPE '03**, was awarded a scholarship from the Armed Forces Communication and Electronics Association (AFCEA) Foundation for the fall 2002.

■ The ECE Department's senior project award was presented to three project groups. The first group, consisting of **Robert Alejnikov, EE '02**, **Mark Blattner, EE '02**, and **Colin Joye, EE '02**, received the Dr. Kozikowski Award, \$500, and a certificate of achievement. The second group project award winners received the McCarthy Project Award, \$250, and a certificate of achievement.

They were **Shawn Doniger, EE '02**, **John Hala, CPE '02**, **Sharon Haiduck, EE '03**, and **Elizabeth McCrosson, CPE '02**. The third group team members were **Mariana Contreras, EE '02**, **Thy Pham, CPE '02**, **Gia Guss, CPE '02**, **Jason Zola, EE '03**, and **Anila Jacob, EE '02**, who received the Maguire Project Award, \$250, and a certificate of achievement.

## CONCRETE CANOE COMPETITION

The Concrete Canoe Competition is a national activity sponsored by the American Society of Civil Engineers (ASCE). Villanova engineering students had to design, build and aesthetically finish a canoe using concrete as the primary material. The 2002 entry was titled "Speed RaCEER" in honor of CEER, where the canoe was constructed. This past spring, the University of Pittsburgh at Johnstown hosted the

regional competition. At the competition the students got to race in the canoes against other Pennsylvania schools. Villanova took 3rd place in the women's endurance race. In addition to racing the canoes, each team is responsible for submitting a written report, as well as giving a technical presentation. Villanova had an enjoyable weekend at the competition and placed 4th out of the 7 schools competing.



Concrete Canoe Team Picture (Left to Right)

Front Row: **Lauren Antenucci, CE '03**, and **Cathy Golata, CE '03**, (Project Managers)

Back Row: **Erin Vogel, ME '05**, **Sean Pearson, EE '05**, **Brian Devine, CE '03**, **Jon Crawford, CE '03**, **Elizabeth Gaynor, CE '03**, **James Reifsnnyder, EE '03**, **Dennis Heyman, CE '02**, and **Professor Frank Falcone, CE '70, MCE '73**. (Advisor)

## ENGINEERING ALUMNI SOCIETY

Formed in 1990, the purpose of the Engineering Alumni Society (EAS) is to support and advance the academic excellence, research and other interests of the College of Engineering and to provide for the social and technical advancement of its members.

The EAS provides support and advances academic excellence by providing \$1,000 grants to incoming freshmen who are superior students and need financial assistance. Three grants were awarded this year. This program was started in 1995 and has awarded over \$30,000 in grants.

EAS also supports many student projects which change from year to year. For the last two years the EAS helped send a group of engineering students to the Amigos de Jesus Orphanage in Honduras to help build a chapel during the spring breaks. EAS has also contributed to many other student functions, projects and competitions such as: Solar Cat, Space Shuttle, Concrete Canoe, ASME, Minority Engineers, Battle Bots, Mini-Baja Competition, Senior Projects and the Engineering Student Council Semi-Formal.

For further information on membership or involvement in EAS contact **Steve Lester, CE '65** President, at [sblester@urbanengineers.com](mailto:sblester@urbanengineers.com)

**50 Rodert E. Kost, EE**, is retired and living in Glenshaw, PA. He and his wife, Claire, have seven children and 20 grandchildren.

**51 Francis X. Kunz, ChE**, celebrated 50 years of happy marriage on November 17, 2001. He and his wife, Joan, gathered with their six children and friends at Mass and a dinner in Pittsford, NY.

**65 Albert M. Tantala, MCE**, was re-elected president of the Pennsylvania

State Registration Board for Professional Engineers, Land Surveyors and Geologists. He resides in Newtown, PA.

**68 Pasquale (Pat) Dougherty, CE, MCE '75**, joined the Philadelphia engineering firm of Urban Engineers Inc. as senior project manager in the highway and bridge division. He has had 33 years of professional experience in highway design, including projects such as the reconstruction of the Schuylkill Expressway and I 95.

**69 Peter Sevcik, EE**, was awarded a US patent for his invention "Application Response Time Prediction" on May 21, 2002. He owns the firm NetForecast.

**71 Lynda A. Duffy Capuzzi, CE**, has been promoted from Assistant Dean to Associate Dean for Student Affairs in the College of Engineering at Villanova.

**78 John J. Stranix, CE**, founder and president of Stranix Associates LLC, provides owner representation services to the Philadelphia Phillies in the design and construction of their new ballpark. He oversaw development of the concept and design, construction, commissioning and operations for the MCI Center in Washington, DC. He and his wife, **Regina Walsh Stranix '78, C&F**, reside in Vienna, VA, with their four children.

**80 Maureen Backe, CE**, has relocated to San Jose, CA, where she serves as senior product marketing manager at SS8 Networks. She also teaches Internet online classes at UCLA's extension campus.

**84 James O. Sprichiger, ME**, has been named a Fellow of the American Society for Quality (ASQ). He is currently employed by Lucent Technologies' Mt. Olive Product Realization Center.

**85 David Byrne, ME**, has invented a light bulb using light-emitting diodes. One version will provide as much light as a conventional 150-watt bulb and use less than 20 watts of electricity. It will last for ages and give off virtually no heat.

**Lisa Lodanne DiTaranti, CE**, was promoted to assistant vice president at Systra Consulting Inc. in Bloomfield, NJ. She specializes in the development of rail transportation systems and resides in Wayne, NJ, with her husband and two daughters.

**86 Patricia Kane Schmidt, Esq., EE**, is a member of the law firm Bell, Boyd & Lloyd LLC's intellectual property department in Chicago. Before practicing law, she was a specification engineer and sales manager for Littlefuse, Inc. She and her husband, Robert, reside in Chicago.

**89 Stephen R. Eid, ME**, managing director of Aberloure Ventures Ltd., relocated to Athens, Greece, in August 2001 as business consultant for clients in Europe and the Middle East. He and his wife adopted their daughter from China in 2000 and are awaiting their second daughter, also from China.

**Mary Natalie Tulske Lutus, ChE**, is senior technical writer at PNL Consulting Group in Hockessin, DE. She has three children.

**91 Leonard A. Faiola, ME**, was named an Associate with Remington & Vernick Engineers, a consulting engineering firm based in Haddonfield, NJ. He resides in Cherry Hill with his wife, Jane, and their three children.

**Navy Comdr. Holly Anne Graf, CE, MCE '91**, is the commanding officer of the USS Winston S. Churchill, homeported in Norfolk, VA. She is one of the very few female commanding officers in the surface warfare area.

**93 Theodore Foley, ChE**, and his wife Nicole have moved to Chicago, IL.

**Margaret Nahas Fitzgerald, CE**, accepted a position with Compaq Computer Corp. as a project manager in Austin, TX.

**Navy Lt. Matthew M. Graham, ME**, is operations officer aboard the USS Stethem in San Diego. He recently graduated from department head training at the Navy Surface Warfare Officers School in Newport, RI.

**94 Chuck Morganson, CE**, is president of the Northern California Peace Corps Association.

**95 Louis Allora, ME**, is a project engineer with Maher Terminals in Elizabeth, NJ. He received his MBA in finance from Rutgers. He and his wife, Wendy and their two children reside in Basking Ridge, NJ.

**Noel Croiger, EE**, is project manager at First Consulting Group in Wayne, PA. She and her husband reside in Colledgeville, PA.

**97 Navy Lt. J.G. Joseph Stavish, CE**, graduated from the basic course at the Civil Engineer Corps Officer School in Port Huenene, CA.

**99 Aaron E. Capone, CE**, a project manager at DICK Corp. in Las Vegas, received the 2000 Safety Excellence Award for having zero lost time accidents. He was recognized for outstanding performance while working on the Sandra Day O'Connor US Courthouse project in Phoenix, AZ.

**Anthony Chamra, CE**, received a Master of Architectural Engineering degree from Penn State University in 2001.

## ENGINEERING ALUMNI AWARDS

Every year the Villanova University, the College of Engineering, the Villanova Engineering Alumni Society (EAS), and the Villanova Alumni Association gather to honor outstanding Villanova Engineering Alumni. The following are the awards presented and a list of recent recipients. The presentation of awards was done on June 7, 2002, at the EAS Awards Banquet.

The 2002 J. Stanley Morehouse Memorial Award was presented to **Dr. Robert Bartolini, EE '64**. This award was instituted in 1972 in honor of J. Stanley Morehouse, Dean of the College of Engineering from 1938 to 1961. The Morehouse Award recognizes outstanding leadership, as demonstrated in the planning or the administration of activities related to the engineering profession.

The 2002 John J. Gallen Memorial Award was given to **John P. Harrison, CE '89, MCE '97**. The John J. Gallen Memorial Award was instituted in 1977 in honor of John J. Gallen, Dean of the College of Engineering from 1961 to 1975. The Gallen Award recognizes the achievement of those whose technical effort yields advances in the engineering profession.

The 2002 Carl T. Humphrey Memorial Award recipient was **Abhijit Dasgupta, MME '81**. The Carl T. Humphrey Memorial Award was instituted in 1990 in honor of Carl T. Humphrey, who served as the first Dean of the College of Engineering from 1920 to 1938. The Humphrey Award recognizes the professional achievements of an alumnus who holds a Masters Degree from Villanova's College of Engineering.

The recipients of the 2002 Alumni Awards for Professional Achievement were **Thomas Portland, ChE '69, MChE '72, Jay Beratan, CE '69,**

**Gerard Mayer, EE '73,** and **Steven J. Christini, ME '95.**

The 2002 Alumni Awards for Meritorious Service were given to **Bruce Uhlman, ChE '90, Anthony Naccarato, CE '88, Rory Sparrow, EE '80** and **Karen Hauck, ME '98.**

## BOARD OF TRUSTEES ELECTS NEW CHAIR

**John G. Drosdick, ChE '65**, was elected chair of the Villanova Board of Trustees at its December 2001 meeting. Drosdick, a board member since 1999, will serve a two-year term with the option of re-election to a second term. He previously served as the board's vice chairman.

Drosdick is chairman, CEO and president of Sunoco, Inc. He is a native of Hazleton, PA. Prior to joining Sunoco in 1996, he was president of Ultramar Corporation from 1990 to 1996 and president of Tosco Corporation from 1987 to 1990. He began his career in 1968 with Exxon.

Drosdick and his wife, Gloria, reside in Bryn Mawr, PA.

## ENGINEERING GRAD/VU FACILITIES MANAGER RETIRES

**John J. Gallen, CE '61**, the individual who was responsible for maintaining the beauty of the Villanova campus and the infrastructure behind it, retired on May 31 after 14 years as executive director of Facilities Management.

Under Gallen's supervision, the University constructed: Caughlin Hall and McGuire Hall on the South Campus, the St. Augustine Center for the Liberal Arts, the Center for Engineering Education and Research (CEER), and the expansion and complete renovation of both the Mendel Science Center and Bartley Hall, all on the main campus, and eight apartment buildings for 1,200 students on the West Campus.



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