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Academic year 1999-2000 represents the culmination of one phase of the Department’s history and the start of another. In November 1999, the Department along with the rest of the College of Engineering successfully completed its six-year accreditation under the new ABET 2000 guidelines. For those familiar with the ABET process, the new outcomes-based standards are a departure from earlier prescriptive standards, and a learning experience for both the accrediting board and the engineering schools. In fact, this process has been beneficial for the Department and the School—as it should be—causing everyone to take time out from the normal flow of business as usual to reflect on how we educate and mentor our young engineers. The Department fared well in this evaluation, coming away with a strong endorsement from the accreditation visitors.

During 1999-2000 the Department also completed its five-year internal review, and the subsequent external review by a board of distinguished academics and practitioners appointed by the Dean. The Department has come through these with high marks, and is now poised at the start of its next five year plan, 2001-2005. These periodic reviews highlighted the dramatic expansion of the Department’s sponsored research program over the past five years (a three and one-third fold increase) and the talented and energized cohort of new assistant professors the Department has recruited (now comprising one-quarter of our number). A problem both reviews point out is declining undergraduate enrollment, a problem across the country and one demanding a strong response.

In less dramatic but nonetheless important developments, the Department continues its systematic program of facility enhancement. For those who have not visited us in the past year or two, a surprise awaits. The main office complex renovation is now complete, and we dedicated the new Keimig Conference Center this past year, named for Margaret Keimig, business manager emerita for CEE and force behind much of our facility renewal. This suite of conference rooms and library provides a central space for the Department, and is in strong demand. We have also dedicated new graduate student offices and computer design studios, although more work is on the boards for student offices. The Department’s current focus is renovation of the geotechnical and materials research laboratories, a much needed, long overdue, and expensive undertaking.

As with the rest of the Clark School, although enrollments in CEE are a challenge, the quality of both our undergraduate and graduate students continues to improve. Average SATs, GREs, and grade points of our entering undergraduates and graduate students are rising quickly, as is selectivity (the ratio of acceptances to admissions). We expect this trend to continue. At the graduate level this trend is being fueled in part by the rapidly expanding research program, especially in the transportation and geotechnical programs.

Strategic planning for 2001-2005 is underway with a goal of publishing a new operating plan by summer. With research development and faculty recruiting well in hand, the planning effort is focusing on issues that affect Maryland’s civil and environmental engineering department as they do every parallel department in the country: what to do about declining enrollments in traditional areas of engineering; how to rejuvenate the curriculum to reflect the profound impact of information technology, sensor systems, remote sensing, and new materials; and how to form a closer bond with our alumni and the broader practicing profession.

With the close of yet another phase in the Department’s history, we are indebted to our many sponsors, collaborators, alumni, and friends who have helped build the successes of the past five years. Thank you.

Gregory B. Baecher, Chairman
Dr. Steven Gabriel joins the Department of Civil and Environmental Engineering this Fall as an Assistant Professor in the Project Management Engineering program. For the past five years Dr. Gabriel served as a Project Manager for IFC Consulting in Fairfax, VA, where he directed and implemented Systems Engineering, Operations Research, Operations Management, and Econometric modeling projects for public and private sector clients. His projects there included modeling production-storage-demand networks and developing decision support systems for the North American natural gas system for the U.S. Department of Energy, as well as other consulting and modeling projects for natural gas and electrical power.

Dr. Gabriel was a postdoctoral appointee in the Mathematics & Computer Science Division of the Argonne National Lab. in Argonne, IL, and, most recently, a Professional Lecturer at the George Washington University in Washington, DC. He was also an Invited Instructor for the Department of Energy where he developed and presented a series of seminars on modern approaches to solving optimization and nonlinear complementarity/equilibrium problems with an emphasis on the energy sector.

Dr. Gabriel’s research interests include mathematical modeling in business and policy settings, specializing in transportation systems planning, operations management, service performance, reliability planning, and econometric modeling; algorithm development for system optimization/equilibrium problems; and development of decision support systems to answer strategic and operational questions in industry.

Dr. Gabriel received his Ph.D. from The Johns Hopkins University in 1992. He also holds an M.A. from Johns Hopkins and an MS from Stanford University.

Undergraduate Program

Enrollment in the undergraduate Civil Engineering program has remained stable for a number of years at 250 to 300 students. The Department uses a relatively new undergraduate curriculum that does away with designated undergraduate majors within the field. Students typically elect a concentration in one of the three major areas of the Department, but are not required to do so and are not identified by specialty areas.

Design has taken on an ever increasing importance in the undergraduate program, bracketing the Freshman and Senior years with major design experiences. In the lower division years each student is required to participate in a hands-on Introduction to Engineering Design class where students from across all the engineering disciplines are enrolled to design, build, and test devices. In the final semester of the senior year each student participates in our highly successful Capstone design course. In this course, students working in teams take on actual civil engineering projects and their solutions are presented to a panel of industry judges and professors.

Graduate Program

The graduate program has been growing in numbers for the past five years, reaching about 300 students. This past year the Department granted 56 MS degrees and 4 PhD degrees. 92 students were financially supported as research assistants, teaching assistants, or fellows.

The Department graduate program continues to be a diverse group, about 25% of our graduates are women, and 20% are from minority groups. Our graduate students are about divided among the six disciplinary groups: structural engineering, geotechnical engineering, water resources engineering, environmental engineering, transportation, and project engineering and management.
Research Facilities

The Bridge Engineering Software & Technology (BEST) Center was established in 1986 to provide a mechanism whereby the bridge oriented software which was developed for the MDSHA could be commercialized and made available to other state design agencies and private consultants. MERLIN-DASH (Design and Analysis of Straight Steel and Reinforced Concrete Girder Bridge Systems) is the principal product among seven computer systems marketed by the BEST Center. MERLIN-DASH clients number approximately 55 state/public agencies and several hundred private consultants.

The Center for Advanced Transportation Technology (CATT) has now completed its second year of existence, and continues to play a key role in the advancement of ITS within Maryland. During the past year, the CATT and its affiliated faculty have played a lead role in the development of the CHART II advanced transportation management system through the development of innovative IT acquisition techniques intended to overcome the delays and cost overruns that are often experienced with ITS procurements, participation in the development of new technology for the CHART system including new graphical user interfaces, new forms of traffic surveillance, the use of simulation for decision support, and participation in the long term planning for the development of a statewide intelligent transportation system that integrates CHART with other systems operated by counties and cities throughout the State of Maryland. A second key activity of the CATT is the development of distance learning techniques for ITS education and training programs using the Internet. This activity includes the leadership of a consortium (designated CITE – Consortium for ITS Training and Education) of approximately 30 universities throughout the world interested in participating in the use of the distance learning material. The CITE website is www.citeconsortium.org.

The Center for Geotechnical Centrifuge Modeling resides in the Civil Engineering Geotechnical/ Pavements/Materials Laboratory. The centerpiece of the lab is the 30,000g-lb, 3m diameter geotechnical centrifuge. It is fully equipped with a new data acquisition system, and in-flight visual monitoring system. Ongoing projects include: soil freezing; compaction grouting; explosive cratering in submerged soil; and contaminant movement through organic soil. A fuller description is provided at www.cee.umd.edu/ centrifuge.

The Center for Technology and Systems Management (CTSM) was established in 1996 in a strategic alliance with the U.S. Navy, U.S. Coast Guard, and Department of Civil Engineering. The goal is to advance the state of the art of utilizing various technologies in engineering systems to make them efficient, safe, and beneficial to mankind and the environment throughout their lives. The technologies of interest include systems engineering, information technology, risk, safety and decision, and censors and control. Ongoing projects include the assessment of the construction feasibility of the mobile offshore base for the Office of Naval Research, web-based reliability assessment of civil works systems, and risk analysis of marine systems.

The Environmental Engineering Laboratory addresses various environmental concerns through teaching and research. Comprehensive research investigations into pollution control and waste minimization technologies are underway, focusing primarily on water, wastewater, hazardous waste, and pollutant fate issues. The laboratory employs modern advanced instrumentation for analysis of water and wastewater samples. Capabilities exist for research in various aspects of water chemistry and environmental microbiology; water, wastewater, and hazardous waste treatment; and the fate and interactions of various pollutants in the environment. The Laboratory has conducted investigations sponsored by and in collaboration with several industries, local and state governments, and various Federal agencies. Advanced instrumentation includes: 1) A Perkin Elmer 5100ZL atomic absorption spectrophotometer with graphite furnace. 2) A Hewlett Packard 6890 Series Gas Chromatograph (FID) with ChemStation. 3) A Waters 510/717 HPLC with autosampler. 4) A Dionex DX-100 ion chromatograph. Other instrumentation includes a Challenge Environmental Systems 8-station AER-200A aerobic/anaerobic respirometer system and various standard laboratory equipment for analysis of pH, BOD, COD, TSS, FOG, and turbidity.

The GIS/Remote Sensing Laboratory occupies about 600 ft². Dedicated hardware within the lab includes four pentium-processor workstations, four desktop digitizers, one oversized digitizing table, one HP DesignJet 650c color plotter, four HP DeskJet 672c color printers, and one HP ScanJet IIcx scanner. The lab works with numerous software packages including ArcView (w/ Spatial Analyst), ArcInfo, VisualBASIC, VisualFortran, C, and MATLAB.

The Maryland Transportation Technology Transfer (T²) Center, organized in 1984, facilitates the Local Technical Assistance Program (LTAP), which provides technology to local transportation agencies in counties and municipalities. T² activities include publishing a quarterly newsletter, conducting training, disseminating information, and providing advice. Most recently T² has emphasized Work Zone Traffic Control including Flagging, and has worked very closely with the Maryland State Highway Administration and Maryland State Police in a series of Incident Management Conferences and Workshops. The emerging effort is to provide training in the use of Pavement Management Systems.
Student Awards and Scholarships

American Society of Civil Engineers’ Outstanding Senior Award
Mark Christopher Barone

The Civil Engineering Department Outstanding Senior Award
Terry Tyler Hall

The Woodward Clyde Consultant’s Award
Kristy Michelle Forish

The Bechtel Award
Gregor Fahrendorf

Chairman of Civil Engineering Outstanding Senior Award
Brian Ulrich

Chi Epsilon Outstanding Senior Award
Shuxian Huang

The Robert L. Morris Award for Environmental Leadership
Kimberly Anne Whitt

Undergraduate Scholarship Awards

Seniors
James S. Long Scholarship
John F. Miller, III Scholarship

Leonard DiGuilian Scholarship

Miller & Long Company of Maryland Scholarship

Robert L. Anderson Scholarship
J. Slater Davidson Scholarship

Federline, Inc. Scholarship
Dellburt A. Kidwell, Sr. Memorial Scholarship

Dan Waldo Scholarship

Whiting Turner Scholarship

Roger H. Willard Scholarship
J. Slater Davidson, Jr. and Louise Cross Davidson Scholarship

Alvin L. Aulbinoe Scholarship

Frank P. Scrivener Memorial Scholarship

Russell B. Allen Scholarship

Roger H. Willard Scholarship

George M. King Memorial Scholarship

Juniors
Roger H. Willard Scholarship
J. Slater Davidson, Jr. and Louise Cross Davidson Scholarship

Dellburt A. Kidwell, Sr. Memorial Scholarship

Russell B. Allen Scholarship

Sophomores

Dellburt A. Kidwell, Sr. Memorial Scholarship

Freshmen

Dellburt A. Kidwell, Sr. Memorial Scholarships

College of Engineering Scholarships

Clark Construction Group, Inc./The George Hyman Construction Company/Omni Construction, Inc. Scholarship
Ph.D. Degrees Granted

December 1999

Andrew M. Nyakaana Blair
Risk Analysis of Cost and Schedule of Complex Engineering Systems
Directed By: Bilal Ayyub
Professor

Kuo-Yng Chang
A Simulation Model of Analyzing Airport Terminal Roadway Traffic and Curbside Parking
Directed By: Ali Haghani
Professor

Rabih M. Haj-Najib
Jointless Bridges with Integral Abutments
Directed By: Amde M. Amde
Professor

Soojung Jung
A Genetic Algorithm for the Vehicle Routing Problem with Time Dependent Traveling Times
Directed By: Ali Haghani
Professor

Benjamin S. Levy
Multivariate Trend Detection in Hydrologic Time Series
Directed By: Richard H. McCuen
Professor

Jingsong Liu
Analysis of Adhesive-Bonded Double-Strap Joint
Directed By:

Anthony C. Pierpont
Ozonation of Waste and Soil Contaminated with Anilines and Aniline-Based Pesticides
Directed By: Alba Torrents
Professor

May 2000

Manoj K. Jha
A GIS-Based Model For Highway Design Optimization
Directed by: Ali Haghani
Professor

Hyunook Kim
Process Control of AAA and SBR Systems
Directed By: Oliver Hao
Professor

Elsaid O. Ramadan
Experimental and Theoretical Study of Delayed Ettringite Damage in Concrete
Directed By: Amde M. Amde
Professor

Jae K. Yang
Competitive Adsorption and Photocatalytic Oxidation of Cu(I) and Cd(II)-EDTA in Ti02 Suspension
Directed by: Deborah Goodings
Professor
Masters Degree with Thesis

August 1999

Dragos Andrei
Tewfik Boutaleb
Seth Paul Brown
Neftali Steven Cajina
Sriram Chellappan
Kathryn Maria Freiberger
Evangelos I. Kaisar
Kunnawee Kanitpong
Lisa D. Lugo
Dong Chul Park
Haiying Qiao
Nancy Alison Straub
Sompon Swanchit
Cynthia-Claire Tagoe
Hsin-Chung Tseng

Clayton John Gordon Schwab
Bastien Simeon
Eileen Marla Glass Singleton
Charles Christopher Smith
kevin Jay Stroud
Michael Lee Swanson
Brigida Fatima Van Doornik
Liang Zhu

Bachelor of Science

May 2000

William Noigagaard Brandt
Micah Shalom Ceary
Alfonso Ignacio Mejia
Carlton Douglas Nave

May 2000

Chokri Abdelkader
Brian Theodore Berkowicz
Peter Michael Chaput
Gilbert marc Chlewicki
Waseem Ahmad Chughtai
Glenn Philip Conklin
Joshua Brown Engel
Gregor Fahrendorf
Terry Tyler hall, Jr.
Dennis Joseph Hogan
Shu Xian Huang
Terrence Jones
Aaron Benjamin Krueger
Jose I. Lazo
hien Trung Le
Thuan Tu Luu
Malinda E. Mehrten
Saeyin Francis Oh
Nadia Eloisa Pimentel
David Vincent Pizzi
Susan maxine Salan
Yoon-Bong Shin
William Andros Siegel
alvaro Sifuentes
John Thomas Strawbridge III
Jordan Ryan Van petten
Jeffrey Scott Witte
Sze-Shun Krystal Wong
Faculty

M. Sherif Aggour
Professor of Geotechnical Engineering
Ph.D. University of Washington Seattle

Certificate of Appreciation, Maryland State Highway Administration, 1997 and 1999
Distinguished Senior Engineer, Maryland Society of Professional Engineers, Potomac Chapter, 1996
University of Maryland Presidential Award, Outstanding Service to Schools, 1996
Teacher of the Year Award, Department of Civil Engineering, University of Maryland, 1985

Geotechnical engineering, nondestructive testing and earthquake engineering

Pedro A. Albrecht
Professor of Structural Engineering
Ph.D. Lehigh

Distinguished U. S. Scientist Award, Alexander von Humboldt Foundation, Germany, 1996-97
Outstanding Service to Returning Students Award, Counseling Center, University of Maryland, 1995
Good Teacher Award, Center of Teaching Excellence, University of Maryland, 1994
Fullbright Lectureship Award, 1987 Commendation for Outstanding Achievement in Engineering Education, James F. Lincoln Arc Welding Foundation, 1986
Honorary Professor, Nanjing Institute of Chemical Technology, since 1986
Fellowship for Research, Japan Society for Promotion of Science, 1985
ASCE State-of-the-Art Civil Engineering Award 1983
Fullbright Lectureship Award, 1982

Performance of steel structures, including fatigue, corrosion, and adhesive bonding. Highway bridges including prestressed trusses and composite girders, fracture control, wheel load distribution, effect of truck loads, and elastic and limit load analyses

Amde M. Amde
Professor of Structural Engineering
Ph.D. SUNY at Buffalo

Service Award, Ethiopian Scientific Society in North America, 1996
ASCE Fellow, 1994
Innovation in Civil Engineering Award of Merit, ASCE, 1991

Structural engineering, bridge structures, masonry structures, stability of domes

Mark Austin
Associate Professor of Structural Engineering
Ph.D. University of California

NSF Research Initiation Award, 1989-91
Winiata Memorial Bursary, 1985-86
W.W. Van Arsdale Fellowship, U.C. Berkeley, 1982
Earle C. Anthony Fellowship, U.C. Berkeley, 1981

Computer-Aided Design of bridge and building structures, earthquake engineering and structural dynamics, systems engineering and integration

Bilal Ayyub
Professor of Structural Engineering
Ph.D. Georgia Institute of Technology

The Walter L. Huber Civil Engineering Research Prize, ASCE, 1997
The K. S. Fu Award for Professional Service, the North American Fuzzy Information Processing Society, 1995
U.S. Army Corps of Engineers Award for contributions to the success of the 1995 Corps of Engineers Structural Engineering Conference
The “Jimmie” Hamilton Award for the Best Paper in the Naval Engineers Journal, 1985 and 1992, American Society of Naval Engineers
The Edmund Friedman Young Engineer Award for Professional Achievement, ASCE, 1989

Risk assessment and analysis, uncertainty modeling and analysis, applications of probabilistic methods in engineering, reliability-based design, reliability modeling and analysis, systems analysis, and reliability analysis of marine and offshore systems

Gregory B. Baecher
Department Chairman
Professor of Geotechnical Engineering
Ph.D. Massachusetts Institute of Technology
State-of-the-Art Award, ASCE, 1991
Thomas A. Middlebrooks Award, ASCE, 1995
Rockefeller Foundation Conflict in International Relations Post Doctoral Fellowship, 1975

Geotechnical risk and reliability, data visualization, environmental history.

Francis B. Birkner
Professor Emeritus of Environmental Engineering
Ph.D. University of Florida

Alexander von Humboldt Award, 1973
Amsbary Award, 1965

Trace metals in water, behavior of particulates in water

Kaye Brubaker
Assistant Professor of Water Resources
Ph.D. Massachusetts Institute of Technology

NSF Career Award, 1998
National Science Foundation Graduate Fellowship 1989-92
Outstanding Student Paper, American Geophysical Union Atmospheric Sciences Section, May 1991

Hydroclimatology, remote sensing in hydrologic monitoring and modeling,
land-atmosphere interactions, water-energy linkages, persistence characteristics of drought and flood regimes, snow hydrology, probabilistic forecasting

**Everett C. Carter**

Professor Emeritus of Transportation Engineering  
Ph.D. Northwestern University

Life Membership, ASCE, 1997  
Outstanding Educator Award, American Road and Transportation Builders Association, 1995  
Life Membership, American Public Works Association, 1995

Transportation systems, airport planning, traffic management, ITS and highway safety

**Gang-Len Chang**

Professor of Transportation Engineering  
Ph.D. University of Texas at Austin

Multi-Ethnic Student Education Certificate of Appreciation, 1995-96  
Outstanding Research Award, 1987

Traffic network control and management, dynamic travel demand forecasting, intelligent transportation system design and control

**Peter C. Chang**

Associate Professor of Structural Engineering  
Ph.D. University of Illinois

Structural dynamics, structural mechanics, nonlinear finite element modeling, computer integrated construction

**James Colville**

Professor Emeritus of Structural Engineering  
Ph.D. University of Texas at Austin

Elected President, The Masonry Society, 1997-99  
Distinguished Senior Engineer Award, Potomac Chapter of the Maryland Society of Professional Engineers, 1997-98  
Certificate of Appreciation and Recognition of Distinguished Achievement: ASCE, 1995; American Concrete Institute, 1995; The Masonry Society, 1996  
Outstanding Engineering Educator, Maryland Section of ASCE, 1995  
Outstanding Paper Award published in the Masonry Society Journal, 1992  
Engineer of the Year Award, Maryland Society of Civil Engineers, 1989-90  
Elected Fellow, ASCE, 1988  
Elected Fellow, American Concrete Institute, 1992  
Structural analysis of bridge design, finite element analysis, structural masonry, reinforced and prestressed concrete

**Allen P. Davis**

Professor of Environmental Engineering  
Ph.D. University of Delaware

Technology Extension Service Award for Environmental Achievement, 1996  
NSF Young Investigator Award, 1993  
E. Robert Kent College of Engineering Outstanding Teaching Award, 1992

Chemical and physical treatment processes for waters and wastewaters, interactions and fates of heavy metals in natural and engineered aquatic systems: adsorption/desorption, photocatalysis, precipitation/dissolution, and plating/corrosion

**Bruce K. Donaldson**

Professor of Structural Analysis and Design Engineering  
Ph.D. University of Illinois, Urbana

Various student-initiated teaching awards  
NASA/ASEE and U.S. Navy summer faculty fellowships  
Structural dynamics and structural analysis

**Chung C. Fu**

Director/Affiliate Associate Professor, Bridg/Building Engineering Software & Technology Center  
Ph.D. University of Maryland, College Park

Bechtel’s Achievement Award, 1984, 1985, 1986

Computer analysis and design, prestressed concrete and steel structural design, bridge engineering, seismic engineering

**Steven A. Gabriel**

Assistant Professor of Project Management Engineering  
Ph.D. Johns Hopkins University

Mathematical modeling in business and policy settings, algorithm development for system optimization/equilibrium problems, development of decision support systems in industry and government

**Deborah J. Goodings**

Associate Professor of Geotechnical Engineering  
Ph.D. Cambridge University

TRB Fred Burgraff Award for Research, 1982  
U.S. Army Outstanding Civilian Service Medal, 1979  
Centrifuge modeling, scale effects, slope stability, reinforced soil, cratering, sinkholes, grouting, cold regions geotechnique, soil strength characterization

**Dimitrios Goulias**

Associate Professor of Geotechnical Engineering  
Ph.D. University of Texas, Austin

Sterling Who’s Who directory, EPRI Innovators Award nominee  
Design, testing and behavior of advanced/modified pavement
materials and composites, smart and self-healing materials, pavement condition and roughness evaluation

Ali Haghani
Associate Professor of Transportation Engineering
Ph.D. Northwestern University

College of Engineering Outstanding Service Award Nominee, 1996 and 1997
E. Robert Kent Outstanding Teaching Award for Junior Faculty nominee, 1993 and 1995
Lilly Endowment Teaching Fellowship, University of Pittsburgh, 1988-89

Transportation systems analysis, network analysis and optimization, logistics and carrier operations

Oliver J. Hao
Professor of Environmental Engineering
Ph.D. U. C. Berkeley
Fellow, ASCE
Diplomate, AAEE

Nutrient removal, hybrid modeling of AS processes

David J. Lovell
Assistant Professor of Transportation Engineering
Ph.D. U. C. Berkeley

Traffic engineering, operations and control

Richard H. McCuen
Professor of Water Resources
Ph.D. Georgia Institute of Technology

Icko Iben Award, American Water Resources Association, 1988
James M. Robbins Award for Excellence in Teaching, Cumberland District, Chi Epsilon

Stormwater management, statistical hydrology, engineering ethics, K-12

Oliver J. Hao
Professor of Environmental Engineering
Ph.D. U. C. Berkeley

Fellow, ASCE
Diplomate, AAEE

Nutrient removal, hybrid modeling of AS processes

David J. Lovell
Assistant Professor of Transportation Engineering
Ph.D. U. C. Berkeley

Traffic engineering, operations and control

Richard H. McCuen
Professor of Water Resources
Ph.D. Georgia Institute of Technology

Icko Iben Award, American Water Resources Association, 1988
James M. Robbins Award for Excellence in Teaching, Cumberland District, Chi Epsilon

Stormwater management, statistical hydrology, engineering ethics, K-12

A. James Clark School of Engineering • Glenn L. Martin Institute of Technology
Ph.D. U. C. Berkeley

Financial engineering, project management, scheduling and optimization

Alba Torrents

Associate Professor in Environmental Engineering
Ph.D. Johns Hopkins University

NSF Career Award, 1996
E. Robert Kent Outstanding Teaching Award for Junior Faculty nominee, 1996

Fate and transport of pollutants in the environment with emphasis on sorption/desorption and mechanisms of abiotic transformations, treatment of toxic organic waste

Donald W. Vannoy

Professor of Structural Engineering
Ph.D. University of Virginia

Civil Engineer of the Year, NSPE, 1991
Outstanding Service Award, ASCE, 1988
Outstanding Service Award, Tau Beta Pi, 1986
Engineering News Record, 1984
State-of-the-Art Award, ASCE, 1983

Forensic engineering, bridge engineering, building design, masonry design, structural analysis, modeling, finite element analysis, concrete, steel, mechanics

Matthew W. Witczak

Professor Emeritus of Pavements and Geotechnical Engineering
Ph.D. Purdue University

Advanced dynamic material characterization, pavement design and performance module, evaluation and rehabilitation of pavement systems, statistical applications in pavement engineering, pavement management systems

Faculty Research

Mr. John Cable

Associate Director of Project Management Engineering
M.Arch, Urban Planning, Catholic University of America

Remodeling Magazine’s 50 Best Remodeling Contractors, 1992

Analyzing facility design and construction practices, benchmarking and business process reengineering studies, assessing the use of information technology in design and construction management

Visiting Lecturers

Thomas W. A. Barham

Construction Engineering and Management
J. D. George Washington University
National Law Bar Admissions: Virginia, District of Columbia
Scholarship from Associated General Contractors of America
Associate Attorney with Arent, Fox, Kinter, Plotkin, & Kahn

James G. Collin

Geotechnical Engineering
Ph.D. U.C. Berkeley
Licensed Professional Engineer: AK, DC, FL, ID, MD, MI, MS, MT, NC, NJ, NY, OR, PA, TN, VA, WA
Vice President of Engineering and Technology Development for Tensar Earth Technologies
Analysis for Landfill Liner Support design and Tensar geogrid reinforced modular block retaining wall design and steepened slope, reinforced soil structures, geosynthetics, deep and shallow foundations, retaining walls, tiebacks, slurry walls, decking, building facade support

Kenneth J. O’Connell

Construction Engineering and Management
Ph.D. University of Maryland

Faculty Appreciation Award, ASCE Student Chapter, University of Maryland, 1987
Harkins Group Fellowship, Construction Engineering and Management Program, University of Maryland
Saul Horowitz, Jr. Memorial Graduate Award, 1987
Founder of and principal-in-charge for O’Connell & Lawrence, concentrating on commercial and highway construction

Thomas R. Rogers

Construction Engineering and Management
Ph.D. University of Maryland
Registered Professional Engineer: MI, CO
Senior Project Administrator, Barton Marlow Company
Project Director, National Aquarium in Baltimore, Ring Tank Renovations
Project Director, Christopher Columbus Center of Marine Research and Exploration, Baltimore
Project Manager, Oriole Park at Camden Yards in Baltimore
Senior Project Director, Fujitsu Microelectronics Facility, Gresham, OR

Neil R. Schulman

Construction Engineering and Management
M. S. Long Island University, Brookville, NY
Division Construction Manager, Marshall Erdman and Associates, Inc.
Construction Manager, Harkins Builders, Inc.

Philip J. Tarnoff

Director, Center for Advanced Transportation Technology
M. S. New York University
Intelligent transportation systems, information technology, real-time database management, data visualization, systems acquisition, simulation
Civil and Environmental Engineering Staff

Maggi Gray, Accounting Associate
LaShaunda Haynes, Account Clerk
Nancy Lapanne, Director
Theresa Mullen, Executive Administrative Assistant
Alan Santos, Academic Coordinator
Sandra Stark, Accounting Associate
Dominic Yeh, Scientific Word Processing Supervisor

BEST Center

Dr. Chung C. Fu, Director
Chauling Fu, Faculty Research Assistant
Pat Johnson, Program Management Specialist
Dr. I.C. Lin, Research Associate

T2 Center

Elmer Biggs, Faculty Research Assistant
Ben Gribbon, Faculty Research Assistant
Dr. Donna Nelson, Director
Jeanette Prince
April Walker, Faculty Research Assistant

CATT Center

George Ake, Assistant Research Scientist
Rickey deLeyos, Faculty Research Assistant
Catherine Dolan, Coordinator
Rick Dye, Assistant Research Scholar

Kathleen Frankle, Faculty Research Assistant
Thomas Jacobs, Research Associate
Jeannie Prevots, Program Management Specialist
Bobbie Sharma, Faculty Research Assistant
Tom Steele, Faculty Research Assistant
Dr. Phillip Tarnoff, Director
Departmental Statistics

Undergraduate and Graduate Degrees Awarded

Distribution of Graduate Degrees Awarded 99-00
Undergraduate Student Class Profile

- Female: 56
- Male: 162
- PT: 33
- FT: 185
- Frosh.: 37
- Soph.: 24
- Junior: 38
- Senior: 116
- Special: 3

Undergraduate Ethnic Profile

- White: 66%
- African American: 11%
- Hispanic: 6%
- Native American: 1%
- Asian: 11%
- Foreign: 5%
Graduate Student Ethnic Profile

- Foreign: 41%
- White: 39%
- African American: 9%
- Asian American: 5%
- Hispanic: 5%
- Native American: 1%

Graduate Student Gender Profile

- Male: 76%
- Female: 24%

Graduate Students in Degree Programs

MSCE Students

- Full Time Women: 24
- Full Time Men: 53
- Part Time Women: 10
- Part Time Men: 14

PhD Students

- Full Time Women: 34
- Full Time Men: 16
- Part Time Women: 9
- Part Time Men: 10
Research Expenditures

Breakdown of Sponsored Research Dollars