

Environmental Engineering Program

Annual Report Summary

2000–2001

STUDENTS AND GRADUATES

The Environmental Engineering Program presently has eight M.S. and 13 Ph.D. students enrolled; the majority of students are full-time and financially supported. During the past year, the program received 48 full applications. Twenty were accepted into the program and nine have accepted admission. One program Ph.D. student received a University Fellowship (Mr. Lucas Hellerich). The program graduated two M.S. and two Ph.D. students. Two undergraduate students graduated with a minor in Environmental Engineering; four students are currently pursuing an Environmental Engineering undergraduate major.

PROGRAM

This year has been marked by initiation of several multi-investigator activities that can support research and education in Environmental Engineering in years to come. A new graduate fellowship program was initiated during the year, supported by the U.S. Department of Education, Graduate Assistance in Areas of National Need (GAANN) Program. The “Graduate Fellowship Program in Environmental Biotechnology at the University of Connecticut” award constitutes a three-year funding for up to nine fellows with institutional payments (Total Direct USDE funds: \$688,500). Program participants are Professors James Bryers (Center for Biomaterials, UCHC), Kenneth Noll (MCB, co-director), Barth Smets (CEE, director), Robert Vinopal (MCB) and Thomas Wood (CHEG)). Six doctoral students to date have been admitted to the program, with three additional fellows to commence fall 2001.

A joint Johns Hopkins-UConn-Umaryland proposal — submitted in March 2000 to the U.S. EPA to establish a Hazardous Substance Research Center with a total budget \$6M for five years — is one of four finalists slated to receive funding in October 2001. Program participants include Professors Helble, Hoag, MacKay, Nikolaidis and Smets.

Finally, the program successfully garnered a three-year, \$250,000 grant from the National Science Foundation (Division of Undergraduate Education for Courses Curriculum and Laboratory Improvement), to study system dynamics of detention/retention ponds. Program researchers are Professors Torgersen and Fred Ogden (CEE).

FACULTY

Detailed activities of the Environmental faculty can be found in the annual reports of their respective home departments. Some highlights follow: Professor Barth Smets continued as chair of the program’s governing committee (Professors Wood, Ogden, and Smets (CEE, chair)). Professor Nikolaidis (CEE) is currently on academic leave at the University of Crete and pursuing several international research projects. Professor Nelly Abboud was appointed as coordinator of the undergraduate program with primary objectives of program outreach, student recruitment, retention, and undergraduate administration. During the year, the Environmental program was engaged in two faculty searches. The junior faculty search was successfully completed with the hiring of Dr. Britt Holmén (Ph.D., MIT), currently an adjunct faculty member at the University of California-Davis with interests in fate and transport of contaminants

in the environment, with a specific focus on air-borne pollutants. The second faculty search for an NU endowed chair professor is ongoing.

Across the program, external research funding continues at an all-time high. In addition, our faculty continue to hold prestigious national research awards, e.g., Professors Helble and Smets hold NSF Career Awards, while Professor Emmanouil Anagnostou (CEE) holds a NASA New Investigator Award, and Professor Ogden holds a U.S. Army Research Office Young Investigator Award. Our faculty continue to hold significant offices within the University. For example, Director of University Honors Program (Mike Cutlip, CHEG), Director of the Environmental Research Institute (George Hoag, CEE), Head of the Chemical Engineering Department (Joe Helble), Chair of the Microbiology Graduate Field of Study (Kenneth Noll), Chair of the Biotechnology Program (Robert Vinopal).

In addition, our faculty hold appointments in various national professional and learned societies: Professor Smets is appointed to the National Research Council's Committee on Bioavailability of Contaminants in Soils & Sediments, Professor Cutlip is immediate past Chairman of the Chemical Engineering Division of the American Society of Engineering Education; Professor Helble has several appointments in the American Association for Aerosol Research; Professor James Fenton (CHEG) serves on the Board of Directors of the Electrochemical Society; Professor Anagnostou serves on NASA's Tropical Rainfall Measuring Mission and the International Precipitation Conference Steering Committee; Professor Abboud (CEE) is a Board member of the American Filtration and Separation Society; Professor James Bryers serves on the National Research Council Committee on Biotechnology Education and the U.S. Department of State Committee on Environmental Biotechnology, Professor Schulthess (PLSC) was symposium chair at the Soil Science Society of America Annual Meeting and Professor Erkey (CHEG) serves on the Green Chemistry Division, American Chemical Society. Professor Torgersen (MARN) is editor in chief of *Reviews of Geophysics* and associate editor of *The Geochemical Journal*, Professor Bryers is associate editor of the *Biotechnology & Bioengineering* and Professor Anagnostou is associate editor of *Journal of Applied Meteorology* while Professors Abboud, Hoag, and Smets serve on editorial boards of *Fluid/Particle Separation Journal*, *Journal of Soil Contamination*, and *Biodegradation*, respectively.

Internationally, Professors Anagnostou and Nikolaidis serve on the Scientific Council of the National Center for Marine Research and consult to the National Observatory of Athens, Athens, Greece, respectively. Professor Abboud is president of the American Lebanese Engineering Society and organizing chair of the conference "Engineering Technology in the New Millennium" in Providence, RI; Professor Ogden is on the International Scientific Committee of the 5th International Symposium of Hydrologic applications of weather radar in Kyoto, Japan; and Professor Helble is organizer of the Engineering Foundation Conference on Vapor Phase Processing and Ceramics in Tuscany, Italy.