Association Of Environmental Engineering Professors

NEWSLETTER

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PRESIDENT'S CORNER

Excellence in Teaching and Research

One of the principal goals of our organization is to promote excellence in environmental engineering education and research. It is our task to enrich our students with versatile problem-solving skills in order that they may have productive and successful careers through the fullest utilization of their abilities. It is evident that the careers of our graduates may span thirty-five to forty years, and that the important environmental problems of the future are very likely to be different from the environmental problems we face today. Therefore, we must recognize that it is essential for our students to attain problem-solving skills which will allow for continual intellectual growth and self-learning.

Broadly stated, it is our mission to provide farsighted and enduring education. Therefore, our educational programs should encompass the learning of engineering-science fundamentals in order that our graduates will be sufficiently versatile and adaptable to address meaningful environmental problems today and in the future. Some of the ways in which our curricula may respond to this mission may include the following:

1. Through emphasis on fundamental concepts and incorporation of methodologies and technologies that provide the greatest opportunity for solving important problems.

2. Through courses in which attention is paid not only to technical details but also to the larger perspective that addresses issues of economic feasibility and optimization, and risk and reliability.

3. Through recognition that answers to complex problems can only be achieved by looking beyond traditional boundaries, necessitating interdisciplinary interactions.

As faculty members we face several challenges in attaining our educational goals. One challenge is the tension that can develop between attention paid to teaching and research. We must avoid the trap of believing that research is the only legitimate task for faculty. On the other hand, we must appreciate that research is essential for maintaining the quality of our teaching. Without a stimulating research agenda, a faculty member may become stale and outdated in less than ten years. We should strive to deliver excellent teaching and sound educational programs not in conflict with high quality research.

Other challenges we face include the need to develop more fully our students' oral and written communication skills. We also need to balance our instructional agendas in order to exploit most advantageously the ubiquitous mini- and microcomputers, and general purpose software, while at the same time determining the proper role for both judgement and experience. Students may utilize computers to provide simulations in order that they may learn both the power and limitations of theory. This may be complemented by activities that emphasize creative aspects of engineering design and innovation in which students learn the difficulty of arriving at imaginative and practical solutions to engineering problems.

In many ways, one of the principal strengths among the graduate programs in environmental engineering is in the diversity of programs available to prospective students. The diverse character of the graduate environmental engineering programs results in part from the diverse nature of the research being conducted at the various institutions. We should encourage high standards of excellence in teaching and research, while recognizing that the focus of an individual program depends in part on the relative balance between attention given to teaching or research. On a national scale, we maintain intellectual vigor in our discipline through diversity. Therefore, we should be cautious before embracing trends that may lead to uniformity; and in this regard I am concerned about suggestions for accreditation of graduate engineering programs.

Although I am not in favor of accreditation at the graduate level, we should appreciate that this issue is being considered by accrediting societies. Recently I have encouraged various representatives of engineering societies to assess carefully their motives for such an endeavor. Accreditation of graduate programs may be a push towards greater conformity rather that greater excellence. In the realm of academic pursuits excellence is nurtured through diversity and generation of ideas and intellectual exchange.

I welcome your comments and suggestions on these issues. Best wishes for a prosperous and productive New Year.

Richard G. Luthy
President

AEEP NEWS AND ANNOUNCEMENTS

New Officers and Board Members

The following were elected as new officers at the Annual Board Meeting on October 5: Richard G. Luthy, President, and George Tchobanoglous, Vice President. Desmond F. Lawler and H. David Stensel were elected to continue to serve as Secretary and Treasurer, respectively, during their terms as Directors. Newly elected Directors for the term 1987-1990 are: Thomas M. Keinath (Clemson), Charles R. O'Melia (Johns Hopkins) and Walter J. Weber, Jr (Michigan). The officers and directors also serve as board contact members to the various committees of the AEEP. The organizational structure of the AEEP, including committee chairmen and board contact members, will be promulgated on a regular basis through a summary listing in the AEEP membership directory.

Special thanks are to be extended to Gary L. Amy (Arizona), John F. Andrews (Rice), Nicholas L. Clesceri (Rensselaer) and J. Charles Jennett (Clemson) for their service as AEEP Directors over the past three years.

1987-1988 AEEP Committee Assignments

COMMITTEES

AAEE Liaison
Chair: Frederick G. Pohland (Georgia Tech)
Vice Chair: R. Bruce Hanes (Tufts)

AWWARF Liaison
Chair: James K. Edzwald (Massachusetts)

Archives
Chair: David W. Hendricks (Colorado State)

Arrangements
Chair: George Tchobanoglous (Cal-Davis)

Audit
Chair: John F. Ferguson (Washington)
Vice Chair: Dennis A. Clifford (Houston)

Awards
Chair: James M. Symons (Houston)

Bylaws
Chair: John F. Andrews (Rice)

Computer Software
Chair: J. B. Neethling (UCLA)
Vice Chair: Jon Liebman (Illinois)

Distinguished Lecturer
Chair: Makram T. Suidan (Illinois)

Education
Chair: Brian A. Dempsey (Missouri-Rolla)
Vice Chair: Robert Baillod (Michigan Tech)

1990's Education Conference Planning
Chair: Robert Baillod (Michigan Tech)

Enrollment Survey
Chair: J. Jeffrey Peirce (Duke)
Vice Chair: Richard W. Walters (Maryland)

Legislative Analysis
Chair: Ray Letterman (Syracuse)

Unit Operations Manual Development
Chair: Makram T. Suidan (Illinois)

Membership
Chair: Desmond F. Lawler (Texas)

Newsletter
Chair: Gregory D. Boardman (Virginia Tech)

Nominating
Chair: E. Robert Baumann (Iowa State)

Publications
Chair: Desmond F. Lawler (Texas)

Register
Chair: William R. Knocke (Virginia Tech)
Vice Chair: Gary L. Amy (Arizona)

Relations with USANC
Chair: Thomas M. Keinath (Clemson)
Vice Chair: David Jenkins (Cal-Berkeley)

Research
Chair: Charles O'Melia (Johns Hopkins)
Vice Chair: J. J. Morgan (Cal Tech)

Sustaining Member Liaison
Chair: Desmond Lawler (Texas)

AD HOC COMMITTEES

Silver Anniversary
Chair: Joseph F. Malina (Texas)

Toxic/Hazardous Wastes
Chair: James W. Patterson (Illinois Inst. Tech.)

Interactions with Practitioners in Env. Eng. Educ.
Chair: John F. Andrews (Rice)

Engineering-Science/AEEP Best Thesis Award for 1987

The Engineering-Science Dissertation Award for 1987 was presented to Dr. David A. Dzombak at the AEEP annual membership luncheon on October 5 in Philadelphia during a break in activities of the Water Pollution Control Federation annual meeting. Dr. Dzombak's dissertation was titled "Toward a Uniform Model for the Sorption of Inorganic Ions on Hydrous Oxides". His thesis advisor was Francois M. M. Morel, Department of Civil Engineering, Massachusetts Institute of Technology. Dr. Dzombak was presented with a check for $1000, while Professor Morel received a check for $250.

In the future two dissertation awards will be presented, one supported by Engineering-Science and one supported by CH_2M-Hill. Information on submittal of theses for consideration of awards will be given in the Spring Newsletter.

AEEP Outstanding Paper Award

Richard I. Dick and Benjamin B. Ewing received the 1987 AEEP Outstanding Paper Award at the AEEP Luncheon in Philadelphia. The award was made on the basis of their paper entitled, "Evaluation of Activated Sludge Thickening Theories", which was published in the Journal of the Sanitary Engineering Division in 1967 (Vol. 93, SA4, p. 9). Richard Dick also received the award in 1986. Congratulations, gentlemen!

AEEP Conference on Research Directions in Environmental Engineering

Preparations are being made to conduct a conference on environmental engineering research directions. Richard G. Luthy and Charles R. O'Melia are preparing a proposal to the National Science Foundation to help support the conference. It is envisioned that the conference would provide a structure for the development of long-term research directions in environmental engineering. The focus of the conference would be on discussion of comprehensive approaches for managing and controlling environmental problems through multiscale-multimedia perspectives, and discussion of the manner in which research results may be effectively transmitted from research "producers" to research "users". It is currently planned that the conference would occur in Washington during November, 1988. Additional information will appear in the Spring Newsletter.

New AEEP Members — Welcome!

William P. Bonner
Tennessee Technological University
Prescott Hall
Cookeville, TN 38505

Carl E. Burkhead
Department of Civil Engineering
University of Kansas
2006 Learned Hall
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Leonard W. Casson
Department of Civil Engineering
University of Pittsburgh
944 Benedum Hall
Pittsburgh, PA 15261

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Civil Engineering
University of Illinois
Newmark Civil Eng. Lab., MC-250
208 N. Romine St.
Urbana, IL 61801

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Civil Engineering
University of Buffalo
212 Ketter Hall
Buffalo, NY 14260

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Department of Bioscience and Biotech.
Drexel University
32nd and Chestnut Streets
Philadelphia, PA 19104

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9408 Prince William Street
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Department of Civil Engineering
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Civil Engineering — Environmental & Water Resources Engineering
Technion — Israel Institute of Technology
Haifa
Israel 32000

Clinton P. Richardson
Dept. of Mining, Environmental, and Geological Engineering
New Mexico Tech
Socorro, NM 87801

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University of Cincinnati
720 Rhodes Hall
Cincinnati, OH 45221

R. Scott Summers
Civil and Environmental Engineering
University of Cincinnati
Rhodes Hall
Cincinnati, OH 45221

Ning H. Tang
Department of Civil Engineering
University of Puerto Rico
Mayaguez, PR 00709

John E. Tobiason
Department of Civil Engineering
University of Massachusetts
Amherst, MA 01003

Deadline for the April 1988 Newsletter

Please mail articles for the April issue of the AEEP Newsletter to the editor, G. D. Boardman, by March 1, 1988.

GENERAL NEWS

Establishment of a Science and Technology Research Center Program by NSF

As part of the President's Science and Technology Initiative with reference to his State of the Union Message on January 27, 1987, the National Science Foundation has established a new Science and Technology Research Centers Program (STC). The goal of the program is to help maintain U.S. preeminence in science and technology and provide an adequately sized pool of scientists and engineers with the quality and breadth of experience required to meet the changing needs of science and society.

Information regarding this new program (solicitation NSF 87-75) may be obtained from Dr. Bryan:

Edward H. Bryan, Ph.D., Program Director
Environmental Engineering
National Science Foundation
Washington, D.C. 20550

The deadline for receipt of proposals is January 15, 1988, for Center proposals and February 1, 1988, for Planning Grant Proposals.

AAEE Certification

The Association of Environmental Engineering Professors is a sponsoring organization of the American Academy of Environmental Engineers (AAEE). Each sponsoring organization of the Academy may submit each year a list of not more than five of its qualified members for consideration by the AAEE Board for certification as a Diplomate.

The candidates must meet the following AAEE criteria:

1. BS in engineering or a related field.
2. Professional Engineer's license.
3. Professionally engaged on a full-time basis.
4. Must have at least fifteen years of environmental engineering experience in one or more of the specialty fields. Eleven of the fifteen years shall be in responsible charge, which work must include active participation with responsibility primarily in one or more fields of environmental engineering.

The candidate applications will be reviewed to see that all criteria are met and will be presented to the AEEP Board for approval. The Board approved applications then will be submitted with a letter of transmittal to AAEE for consideration by the AAEE Admissions Committee and Board of Trustees.

Any active AEEP member in good standing who meets the above criteria is eligible for nomination. All applications should include letters of endorsement from three AEEP members who are familiar with the candidate's achievements. Consideration shall be given to the record of service to AEEP.

In addition to sponsor nomination, AEEP members meeting the above criteria may apply directly to the Academy for membership, with acceptance being conditional on successfully passing an oral examination. In addition, members that do not have the

experience noted above but have eight (8) or more years experience in environmental engineering can apply directly to the Academy, with acceptance being conditional on successfully passing both a written and an oral examination. The Academy's address and telephone number is:

American Academy of Environmental Engineers
132 Holiday Court, Suite 206
Annapolis, MD 21404
☎ (301) 266-3311

Qualified AEEP members wishing to be sponsored as nominees of AEEP, or desiring more information, should apply directly to or contact the AAEE Trustee, Dr. Frederick G. Pohland, School of Civil Engineering, Georgia Institute of Technology, Atlanta, GA 30332; Tel. (404) 894-2265.

WPCF Robert A. Canham Fellowship

Applications are now being received for the Robert A. Canham Fellowship. The Fellowship, honoring the retired WPCF executive director, provides $2500 for a study tour in England of the research and development facilities of the Water Research Center, Inc., and a treatment facility.

For information and application forms contact:

James H. Suddreth
Technical and Educational Services
Water Pollution Control Federation
601 Wythe Street
Alexandria, VA 22314-1994
☎ (703) 684-2406

WPCF Student Paper Competition

The Water Pollution Control Federation is inviting students to submit papers that concern water pollution control, water quality problems, water-related concerns, or hazardous wastes. An Award of $1000 for the best paper will be made to students in each of the following three categories: Operations students, Bachelors and Masters students, and Ph.D. students.

A 250- to 1000-word abstract should be sent to James Suddreth of the Water Pollution Control Federation (address below) before February 1, 1988. The Student Activities Committee will review the abstracts and select the winners.

James H. Suddreth
Technical and Educational Services
Water Pollution Control Federation
601 Wythe Street
Alexandria, VA 22314-1994
☎ (703) 684-2406

Free IAWPRC Memberships for Graduate Students

From revenue generated by an endowment fund, the U.S.A. National Committee (USANC) of the International Association on Water Pollution Research and Control (IAWPRC) once again will award a number of gratis one-year student memberships in IAWPRC. Included are subscriptions to *Water Research* and *Water Quality International*. Awards will be made on a first-come basis subject to the condition that not more than one graduate student from any one university be granted an award unless fewer applications than awards available are received by the application deadline (1 February 1988). Graduate students wishing to be considered for such an award should have their faculty advisor nominate them in a letter directed to:

Dr. T. M. Keinath
USANC Secretary-Treasurer
Environmental Systems Engineering
Clemson University
Clemson, SC 29634-0919

No university should nominate more than three graduate students. If more than one is nominated, the list should be prioritized.

AWWA Publishing Plans

The book publishing division of the American Water Works Association has embarked on a program to locate and publish new books by individual or corporate authors. John Rieman, AWWA Senior Technical Editor, announced that AWWA is soliciting manuscripts concerning all phases of water utility management and operations.

Authors interested in additional information should contact John Rieman, AWWA Senior Technical Editor, 6666 West Quincy Avenue, Denver, CO 80235; phone (303) 794-7711.

IIE Creates New Department

Richard M. Krasno, President of the Institute of International Education, the largest not-for-profit educational exchange agency in the United States, announced the creation of a new Department of Science and Technology. Located in IIE's office in Washington, D.C., the department will be under the leadership of Steven Ebbin, who has been appointed a Vice President of the Institute.

PERSONAL ACCOMPLISHMENTS

Frank E. Dalton was named 1986 Government Civil Engineer of the Year for Zone III of the American Society of Civil Engineers (ASCE). Dalton is general superintendent of the Metropolitan Sanitary District of