



Association Of
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Professors

NEWSLETTER

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PRESIDENT'S CORNER

AEEP is active and effective in serving the needs of its members. To emphasize this fact, I summarize highlights of recent accomplishment and new initiatives reported at our October Board of Directors meeting.

Who comprises AEEP? Our past Secretary, Bill Knocke, comprehensively up-dated our membership records. He reports that AEEP has 494 members, of which 397 are regular members that represent 133 institutions. We think that we have at least one member for almost every environmental engineering program in the United States.

One of AEEP's goals is to expand membership to virtually all professors practicing environmental-engineering education. To advance that goal, the Board revised and reprinted the AEEP "Trifold," which is a short brochure that tells about AEEP, its benefits to members and the profession, and how to become a member (see enclosed photocopy of the trifold). The new Trifolds are attractive and informative. Please request copies from the Publications Chairman, Desmond Lawler (U. Texas, Austin), and use them to encourage your colleagues to join us in AEEP. Membership will enhance their effectiveness as educators and will enhance the organization's effectiveness in all of its activities.

Who are the clients of AEEP members? Bill Ray's annual survey of graduate enrollments in environmental engineering described one of our key clients, the graduate students. In 1989, the 99 reporting institutions enrolled 1780 MS students and 825 PhD students. During that same time, they reported 706 MS graduates and 184 PhD graduates. Since we think that our survey enumerated about 95% of all graduate students in environmental engineering, we see that the total graduate-student output of our membership is approximately 900 per year.

Another key client of AEEP members is the community of those who hire our graduates. All of us hear constantly that consultants, industries, and government agencies cannot find nearly enough well educated graduates in environmental engineering. The

enrollments and graduation rates tabulated by Bill Ray quantitatively demonstrate the problem: We do not have enough students in our graduate programs! The AEEP Board of Directors is initiating two activities that should help to remedy the problem over the long term.

The first activity is production of a revised and greatly improved version of "So, You Want to Be an Environmental Engineer." Planned as a four-page, glossy brochure, this AEEP publication will be directed towards recruitment of students into undergraduate curricula leading toward environmental engineering. The informative and well written text, supplemented by attractive photos, will tell high-school students and lower-level undergraduates about the field of environmental engineering, what environmental engineers do, and how to enter the field. This publication should be completed in early 1991. Information on its contents and how to obtain copies will be published then.

The second activity involves an Environmental Education and Research Coalition (EERC), which will work towards convincing Congress that traineeship and fellowship programs need to be instituted. Only through the infusion of these kinds of Federal monies can the current limitations in the education of environmental engineers be overcome. I am extremely pleased to announce that our Past President, Tom Keinath, is taking the leadership role in establishing the coalition, which will involve AEEP and numerous industry and government groups. Although the road can be arduous when dealing with Congress, we have been successful in the past. Over the past two years, AEEP was instrumental in convincing Congress to increase the EPA's budget for exploratory research. Although the federal government's budget is still uncertain, it seems assured that the exploratory grants program will have a major increase. The EERC is a bigger legislative effort that AEEP has undertaken in the past, but with Tom's leadership and participation from the employers of our graduates, we can look forward to federal support for overcoming the personnel shortages in our field.

Soon, you will receive notice to renew your membership for 1991. You also will be asked to complete a more comprehensive form giving information about yourself. This is part of the Board's effort to improve the usefulness of the Directory. In addition to the traditional information, the 1991 Directory will provide information on electronic mail, fax numbers, and areas of technical expertise. This new information will make it easier for you to be contacted and for us and others to find the right person when expertise is required for reviews, consulting, and AEEP activities. Please make a special effort to complete the form and return it promptly to the Secretary.

During the summer, I surveyed the membership concerning possible inputs to a second edition of the *AEEP Computer Software Manual*. I received a good response. Most importantly, Joe DePinto (soon of SUNY Buffalo) stepped forward to be the leader of the effort and chairman of our Computer Software Committee. Joe will be in charge of selecting programs, assuring high quality in all aspects, obtaining financial resources, and producing the new manual. The second edition will be a major upgrade from the first edition. The Board is very excited about the manual and Joe's directions. We look forward to hearing from Joe over the next months.

Ken Williamson, John Ferguson, Bob Baillod, and Dick Luthy are the organizers of the 1991 AEEP Environmental Engineering Education Conference, which will be held in Corvallis, OR on August 18-20. The conference will focus on three themes critical to education and curricula in our field: namely, the role of undergraduate programs, the evolution of graduate education, and the incorporation of hazardous-waste management. Although more information will be coming from the organizers, please reserve the August 18-20 dates on your calendar; the education conference will be top quality and of interest to everyone in AEEP.

At the WPCF Conference in Washington, D.C., our annual membership luncheon attracted about 90 people. Tom Keinath and I were able to announce many exciting accomplishments and initiatives, including those reviewed above and others. We presented awards for achievements and service. The best dissertation awards are reported elsewhere in the *Newsletter*. Other awards went to Walter Weber for being the 1990 Distinguished Lecturer, Tom Keinath for his outstanding service as President over the past year, and Bill Knocke for his exceptional service as Secretary over the past two years.

At the end of the same day as the luncheon, we hosted the second annual AEEP Meet and Greet Reception. Perhaps 100 or more people attended the reception, which allowed informal discussions, new and renewed acquaintances, and attitude adjustment. The reception was a big success that we hope to continue in future years.

I think that these highlights from the 1990 Board of Directors meeting give you the flavor of the vitality and achievements of AEEP. Since AEEP is a volunteer organization, it performs only to the degree that its members step forward with ideas, energy, and effort. Fortunately, AEEP has plenty of members who are stepping forward. Although the Board members are exemplary in their dedication and service, they cannot and do not put forth the bulk of the effort. AEEP has numerous committee chairs and committee members who work diligently on AEEP activities throughout the year. As President, I look forward to seeing even greater participation by AEEP members. In fact, I and the Board will be calling on many of you to help in specific ways. Together, we will make AEEP and the profession it represents better and stronger.

Bruce E. Rittmann
President

AEEP NEWS AND ANNOUNCEMENTS

Results of AEEP Officer Elections

At its October meeting, the AEEP Board of Directors elected the following individuals to office for the coming year:

President — Bruce Rittmann
Vice-President — Bob Baillod
Secretary — Gene Parkin
Treasurer — Brian Dempsey

Tom Keinath will continue to serve with the Board next year as the Past President of the Association. George Tchobanoglous officially "retired" from his year as Past President at the October meeting, although George will continue to serve in many capacities within the Association. Both Tom and

George deserve our sincere appreciation for the service they have given to AEEP. Congratulations new officers!

Engineering Science and CH2M-Hill Awards

Doctoral Thesis Awards

Entries are sought for the 1991 Outstanding Doctoral Thesis Awards, one sponsored by Engineering Science, Inc., and the other sponsored by CH2M-Hill. Two separate but equivalent awards will be given, each consisting of a plaque and a cash prize of \$1000 for the student and a plaque and a cash prize of \$500 for the faculty advisor.

Faculty advisors wishing to compete should send **three** copies of the thesis to Mitch Small (Civil Engrg. Dept., 119 Porter Hall, Frew Street, Carnegie Mellon University, Pittsburgh, PA, 15212). They should be accompanied by a simple letter of transmittal stating the student's current address and indicating when the thesis was completed. The copies will not be returned, so xerographic copies inexpensively bound are recommended.

The deadline for submission is **March 15, 1991** for dissertations completed during the **1990 calendar year**. (NB: the deadline and competition year have been changed from previous years!) Faculty advisors are urged to limit themselves to a single entry (which will be considered for each of the two awards); self nominations by students will not be accepted.

A selection committee of three AEEP members will read and judge each thesis on the basis of 100 points allocated as follows: Scientific and Technical Merit of the Research - 30; Originality of Research - 30; Contribution to Advancement of Environmental Engineering - 30; Clarity of Presentation - 10.

The selections will be made by September 1 so that the recipients can be invited to the AEEP luncheon at the WPCF meeting. The recipients of the 1990 awards were:

- Gordon D. Cobb, "Modeling and Experimental Simulations of Organic Contaminant Biotransformations in Subsurface Environments," under the supervision of Edward J. Bouwer, The John Hopkins University (recipient of the Engineering Science Award).
- Craig S. Criddle, "Reductive Dehalogenation in Microbial and Electrolytic Model Systems," under the supervision of Perry L. McCarty, Stanford University (recipient of the CH2M-Hill Award).

Our thanks to Engineering Science and CH2M-Hill for their generosity in sponsoring these awards and to the members of the 1990 selection committee: Charlie O'Melia (Chairman), Mitch Small, and Sandra Woods.

Stephen J. Randtke

AEEP Outstanding Paper Award

Nominations are sought for the 1990 AEEP Outstanding Paper Award for a paper that has "withstood the test of time". Nominators should send a copy of the paper and a letter (2 pages maximum) to Steve Rantke (Civil Engrg. Dept., U. of Kansas, Lawrence, KS 66045). The letter should give the full citation, the reasons why the paper is considered a "landmark", and a description of the influence the paper has had on environmental engineering practice. A nomination cannot be made by an author or co-author of the paper. Nominations are due **July 15**.

According to the current rules of the competition, any author of a winning paper is ineligible in the

competition for a period of three years. The previous winners were:

1983 - Stumm, W., and Morgan, J.J., "Chemical Aspects of Coagulation", *Jour. Amer. Water Works Assn.*, August, 1962.

1984 - Stumm, W., and O'Melia, C.R., "Stoichiometry of Coagulation", *Jour. Amer. Water Works Assn.*, May, 1968.

1985 - McCarty, P.L., and Lawrence, A.W., "Unified Basis for Biological Treatment Design and Operation", *J. San. Engrg. Div., ASCE*, June, 1970.

1986 - Dick, R.I., "Role of Activated Sludge Final Settling Tanks", *J. San. Engrg. Div., ASCE*, April, 1970.

1987 - Dick, R.I., and Ewing, B.B., "Evaluation of Activated Sludge Thickening Theories", *J. San. Engrg. Div., ASCE*, August, 1967.

1988 - McCarty, P.L., "Anaerobic Waste Treatment Fundamentals", *Public Works*, September-December, 1964.

1989 - Weber, W.J., Jr., and J. Carrell Morris, "Kinetics of Adsorption on Carbon from Solution" and "Equilibria and Capacities for Adsorption on Carbon", *J. San. Engrg. Div., ASCE*, April 1963 and June 1964.

1990 - O'Connor, Donald J., "Oxygen Balance of an Estuary," *Jour. San. Engrg. Div., ASCE*, 86, SA3, May, 1960.

Each year the papers ranked 2 through 5 are automatically considered in the next year's voting. A paper is dropped from consideration if: (a) it finishes fifth or lower in any year, or (b) it has been in competition for three years without being selected. The carryover nominations for this year's competition are:

- Cleasby, J.L., and E.R. Baumann, "Selection of Sand Filtration Rates," *Jour. Amer. Water Works Assn.*, 54, 579 (1962); and Cleasby, J.L., M.M. Williamson, and E.R. Baumann, "Effect of Filtration Rate Changes on Quality," *Jour. Amer. Water Works Assn.*, 55, 869-880 (1963). (Nominated 1989)
- Sezgin, M., D. Jenkins, and D.S. Parker, "A Unified Theory of Filamentous Activated Sludge Bulking," *Jour. Water Poll. Cont. Fed.*, 50, 2, 362-382 (Feb., 1978).
- Yao, K.M., M.T. Habibian, and C.R. O'Melia, "Water and Waste Water Filtration: Concepts and Applications," *Environ. Sci. and Tech.*, 5, 1105-1112 (1971). (Nominated 1989)

Please take a few moments to reflect on the papers that you think have had the greatest impact on environmental engineering and consider nominating one of them for this award. Note that papers in all areas of environmental engineering, including air pollution, water quality, solid waste, hazardous waste, etc. are eligible.

Stephen J. Randtke

AEEP Founders' Award

The AEEP Executive Committee has established the AEEP Founders' Award to recognize a maximum of one member each year for "**sustained and outstanding contributions to environmental engineering education**". Award criteria and a selection procedure have now been adopted, and nominations are being sought for the inaugural award to be given at the annual luncheon next October.

Nominations may be made by communicating (orally or in writing) the name of the nominee to the chairman of the awards committee (Steve Randtke, Civil Engrg. Dept., U. of Kansas, Lawrence, KS, 66045). The deadline for nominations to be assured of receiving full consideration is **March 15, 1991**.

Stephen J. Randtke

1990-91 Committee Assignments

COMMITTEE	CHAIR
AAEE Liaison	Paul L. Bishop
AWWARF Liaison	Jack Cleasby
Archives	David W. Hendricks
Arrangements	Bob Baillod
Audit	David Long
Awards	Steve Randtke
Bylaws	
Computer Software	Joe DePinto
Distinguished Lecturer	Fred Pohland
Education	Mike Stenstrom
1990's Education Conf. Planning	Ken Williamson
Enrollment Survey	Bill T. Ray
Latin American Initiatives	Ricardo Jacquez
Legislative Analysis	Tom Keinath
Membership	Gene Parkin
Newsletter	Chet Rock (1/91)
Nominating	Tom Keinath
Publications	Desmond F. Lawler
Relations with	

USANC	David Jenkins
Specialty Conference	H. David Stensel
Sustaining Member Liaison	George Tchobanoglous
WPCF Liaison	Walter J. Weber
Water Quality 2000	Walter J. Weber

Sponsorship of 1991 AEEP Distinguished Lecturer

Dr. Willi Gujer of the Swiss Institute for Water Pollution Control (EAWAG) in Dubendorf, Switzerland has accepted the invitation to serve as the AEEP Distinguished Lecturer for 1991. Dr. Gujer has been requested and has agreed to prepare a lecture entitled "Model Development for Dynamic Simulation of Complex Activated Sludge Systems". The lecture tour will be arranged sometime during the period of February 15 to April 30, 1991. at a projected number of 10 to 12 locations.

Institutions interested in hosting Dr. Gujer should send a letter request with appropriate documentation by December 1, 1990 to:

Dr. Frederick G. Pohland
 Department of Civil Engineering
 1140 Benedum Hall
 University of Pittsburgh
 Pittsburgh, PA 15261
 ☎(412) 624-1880
 Fax. (412) 624-0135

This request should include the following information:

1. Name and address of host institution and contact person.
2. Identity of possible co-sponsors.
3. Arrangements for publicity, accommodations and possible video taping of the lecture.
4. Preference or restrictions on dates for a visit during the February to April period with pertinent justification.
5. A brief statement describing how a visit by Dr. Gujer would benefit and complement current academic activities.

Expenses associated with the lecture tour are shared by the host institution on a total lump sum, fixed cost basis. It is estimated that each institution would contribute \$800 to cover travel and living expenses, as well as to provide a modest honorarium. Responsibility for final choice of the lecture tour will rest with the AEEP Distinguished Lecturer Committee who will make that selection on the basis of the information received. Special consideration will be given to institutions that have not been visited by a Distinguished Lecturer within the last year or two, the research and teaching focus of the candidate institutions, and the possibility of having more than one institution co-host the event.

The members of the AEEP Distinguished Lecturer Committee are pleased with the prospect of another successful tour and look forward to a timely receipt of invitations to participate as hosts.

Frederick G. Pohland

AEEP-25 Years

The book AEEP-25 Years was printed in mid-June with 305 copies. Copies remaining are 153. Copies may be obtained from Bill Knocke for a cost of \$20 at the address following:

Professor William R. Knocke
Dept. of Civil Engineering
VPI&SU
Blacksburg, VA 24061

The following form may be used in ordering.

Please send ___ copies of AEEP-25 Years to:

I have enclosed a check for \$20 per copy made payable to AEEP.

Deadline for April 1991 Newsletter

Please submit articles for the April issue of the AEEP Newsletter to the new editor, Chef A. Rock (Dept. of Civil Engineering, University of Maine, 457 Aubert Hall, Orono, ME 04469) by March 1, 1991.

GENERAL NEWS

The 1991 LARS Scholarships

The Larson Aquatic Research Support (LARS) scholarships are intended to honor the memory of Dr. Larson by providing support and encouragement to outstanding graduate students preparing for a career in one of the fields of science or engineering to which Dr. Larson made significant contributions.

You are eligible to apply if you are pursuing an advanced (MS or PhD) degree at an institution of higher education located in Canada, Guam, Puerto Rico, Mexico, or the United States. In addition, you must complete the requirements for your master's degree sometime after May 1, 1991; PhD candidates, sometime after December 31, 1991.

Completed applications for the MS scholarship must be received no later than December 15, 1990; for the PhD, no later than February 15, 1991. The scholarship recipients will be publicly recognized at the annual conference of the American Water Works Association in June.

Two scholarships will be provided: a \$3,000 scholarship for an MS student and a \$5,000 scholarship for a PhD student.

Application forms and additional information are available from:

The LARS Scholarship Program
American Water Works Association
6666 West Quincy Avenue
Denver, Colorado 80235
☎(303) 794-7711

Call for Papers

Annual American Institute of Chemical Engineers (AIChE) Environmental Division Student Award

AIChE - Environmental Division
1st Place - \$300
2nd Place - \$200
3rd Place - \$100

Certificates and awards will be presented at the Summer National AIChE Meeting to be held in Pittsburg, PA, in August of 1991. The AIChE will also provide the 1st place winner with attendance at the awards presentation. In addition, the paper is intended for publication in *Environmental Progress*.

Contest Entry Rules:

1. The work must be a first paper (i.e., report on original unpublished work).
2. The paper must report on research or investigation related to an environmental program (i.e., lab experiment, theoretical development, a numerical analysis or modeling).
3. The author must be a member of the student chapter of AIChE.
4. The work must be performed during the author's undergraduate enrollment and the paper must be submitted prior to or within six months of graduation.

Submit manuscript with cover letter by May 14, 1991 to the Second Vice Chairman of the Environmental Division as shown below:

