



Association of
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Professors

Newsletter

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PRESIDENT'S CORNER

What is "Environmental Engineering?" There are probably as many definitions as there are environmental engineers. When the Association was first created in 1963, it was known as the American Association of Professors in Sanitary Engineering (AAPSE). At that time, the field of sanitary engineering was generally defined to include water supply and treatment; sewerage and sewage treatment; surface and groundwater pollution control; general environmental sanitation; control of atmospheric pollution; industrial hygiene; and radiological health. This sounds much like a description of environmental engineering today.

However, in the early 1960's several groups began to split off to form new professional specialties. Among these were water resources engineers, air resources engineers and public health engineers. In the minds of many, the sanitary engineer was relegated responsibility for management of water and wastewater.

Membership in AAPSE largely followed this trend. The vast majority of its members were faculty whose main concern was treatment of water and wastewater. There were some exceptions, but by and large, faculty interested in other environmental fields joined other organizations.

In the early 1970's, AAPSE changed its name to the Association of Environmental Engineering Professors (AEEP) to reflect the broad spectrum of backgrounds needed to address environmental problems. However, in 1992 the membership is still composed primarily of those interested in water and wastewater problems. There are some members who are principally interested in air pollution, groundwater pollution, solid waste management, or geoenvironmental engineering, but their numbers are small. It is my feeling that we must expand the scope of AEEP to encompass the interests of all faculty within the field of environmental engineering. Without this cross-linking, we will be missing a valuable component necessary to educate our students concerning integrated approaches to environmental management. Consequently, I plan to create a task force to investigate ways to encourage our colleagues who are not currently members of AEEP to join.

In a similar vein, we must do some crystal-balling to see what the outlook is for environmental engineering in the future. We will always have plenty of municipal wastewaters to treat and we will also need to develop better ways to supply high quality drinking water, but there are new arenas opening up to us if we are prepared. The latest buzz words from USEPA are "pollution prevention." EPA, under a mandate from Congress, is pushing for the elimination

of end-of-pipe industrial waste treatment by encouraging the prevention of wastes at the source. This can be achieved in a myriad of ways, including process chemical substitution, process equipment changes, recycling or reuse of waste materials, etc. Much of this work will be done by chemical engineers, materials scientists or industrial engineers, but it will still be up to the environmental engineer to evaluate the need for and effectiveness of these process changes. In addition, it will be the environmental engineering faculty's responsibility to educate these other engineering professions as to the benefits of pollution prevention. We, as a group, must decide how to meet this challenge and how to interface with these various professions who currently have little knowledge of environmental issues.

Several AEEP members have expressed nervousness about broadening the scope of AEEP too far and diluting our efforts. I agree that we need to concentrate on what we do best, but that does not mean that we can not have a broad appeal.

This coming year will see many other developments for AEEP. Work is continuing on the AEEP Long Range Plan, under the leadership of Aarne Vesilind, and should be completed this year. Steve Randtke is leading the development of a much needed AEEP Policy Manual. The Seventh Edition of the "Register of Environmental Engineering Graduate Programs," compiled by Gary Amy and Robbin Collins, will be available soon. A group headed by Joe Malina is exploring the creation of a Specialty Group on Environmental Engineering Education within the International Association on Water Quality to interface AEEP activities with our fellow faculty in Europe and Asia. An informal liaison arrangement, headed up by Bob Baillod, has been initiated with the University Consortium on Water Resources (UCOWR) to help promote governmental support for university-based environmental and water related instructional and research programs. After many years of disagreements, the Executive Committees of AEEP and the American Academy of Environmental Engineers (AAEE) have agreed to meet in January in an attempt to work out our differences. I will report to you on this in the next Newsletter. Finally, preparations are under way for our next Research Needs Workshop to be held in September in Ann Arbor, MI.

All in all, this will be a very busy year for your Association. We will need all the help we can get. If you would like to volunteer for any AEEP activity, please drop me a line.

Paul L. Bishop, President

AEEP NEWS AND ANNOUNCEMENTS

Sponsorship of 1992 AEEP Distinguished Lecturer: Dr. Saburo Matsui

Dr. Saburo Matsui of the Laboratory for Control of Environmental Micropollutants, Kyoto University, Kyoto, Japan has accepted the invitation to serve as the AEEP Distinguished Lecturer for 1993. Dr. Matsui has agreed to prepare three lectures entitled; (a) "Detection and Evaluation of DNA Damaging Micropollutants in the Water Environment by *Bacillus subtilis*," (b) "Role of Sulfur Bacteria in Aerobic and Anaerobic Biological Waste Treatment," (c) "Historical Perspective of Industrial Pollution Control in Japan." The lecture tour will be arranged during the period of March 26 to April 14, 1993 at a projected number of 10 to 12 locations.

Institutions interested in hosting Dr. Matsui should send a letter request with appropriate documentation to:

E. Joe Middlebrooks
Dept. of Civil Engineering/258
University of Nevada-Reno
Reno, Nevada 89557-0122
Tele: 702/784-1325

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. A brief statement describing how a visit by Dr. Matsui 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 approximately \$850 to cover travel and living expenses, as well as 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 information received. Special consideration will be given to institutions who have not been visited by a Distinguished Lecturer within the last year or two, the research and teaching focus at 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 for another successful tour and look forward to a timely receipt of invitations to participate as hosts.

AEEP Spurs Success of International Conference

By all standards, the 1992 Biennial International Conference of the International Association on Water Quality (IAWQ) was a grand success, and the efforts of AEEP and its members were among the key reasons for the success. Held in May in Washington, DC, the IAWQ International Conference attracted 1,150 paid registrants, including more than 600 foreign delegates. The technical and social programs received accolades for their quality, and the conference was a financial success for its USA Organizing Committee.

AEEP members took many of the key roles in organizing the conference. Key examples include:

- the Conference Presidents, Wesley Eckenfelder and Richard Engelbrecht
- the chairman of the conference organizing committee, James Patterson
- the secretary of the organizing committee, Roger Minear
- the chairman of local arrangements, Clifford Randall
- AEEP also contributed directly through a \$2,000 contribution over 4 years
- organizing an academics reception (with financial assistance from Lewis Publishers)
- organizing graduate student workers for the conference. This last item is particularly important, because it made the conference financially viable, and it allowed 143 graduate students to attend the international conference. Special recognition should go to Mark Benjamin, who managed student recruitment for AEEP.

One of the results of the IAWQ conference and AEEP's role is a proposal that IAWQ establish a specialists group on environmental engineering education. This group is a start towards extending the concepts and benefits of AEEP to the international academic community. Thus, AEEP also is contributing as a role model.

Bruce E. Rittmann

AEEP Founders' Award

Perry L. McCarty, Silas H. Palmer Professor of Civil Engineering at Stanford University was awarded the 1992 AEEP Founders' Award at the Annual Meeting held on September 21, 1992 in New Orleans. This award is given annually to recognize an AEEP member who has made "sustained and outstanding contributions to environmental engineering education." The 1991 award was presented to Professor E. Robert Baumann of Iowa State University.

Nominations are being sought for the 1993 AEEP Founders' Award. Nominations may be made by communicating (orally or in writing) the name of the nominee to the chair of the awards committee, Amit Amirtharajah, School of Civil Engineering, Georgia Institute of Technology, Atlanta, GA 30332, Tele. (303) 492-6274, FAX (303) 492-7317. The deadline for nominations to be assured of receiving full consideration is March 15, 1993.

1993 James M. Montgomery Master's Thesis Awards

Entries are sought for the 1993 James M. Montgomery Master's Thesis Awards. First and second place awards will be given, each consisting of a plaque and a cash prize for both the student and the faculty advisor. The cash prize for the first place award is \$600 for the student and \$300 for the faculty advisor; the amounts for the second place award are \$400 and \$200, respectively.

Faculty advisors wishing to compete should send three copies of the thesis to Ryan Dupont, Utah Water Research Lab, Utah State University, UMC-8200, Logan, UT 84322-8200. 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 inexpensive xerographic copies are recommended.

The deadline for submission is March 15, 1993 for dissertations completed during the 1992 calendar year. 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 selection will be made by September 1 so that the recipients and their advisors can be invited to the AEEP luncheon at the WEF meeting. The recipients of the 1992 awards were:

First Place: Daniel Noguera, "Soluble Microbial Products Modeling in Biological Processes," under the supervision of Bruce Rittmann, University of Illinois, Urbana-Champaign.

Second Place: Joseph Wood, "Modeling the Simultaneous Removal of Sulfur Dioxide and Hydrogen Chloride from Municipal Waste Combustion Flue Gas Via Spray Dryer Absorber," under the supervision of Mark Rood, University of Illinois, Urbana-Champaign.

Our thanks to James M. Montgomery Consulting Engineers for their generosity in sponsoring these awards and to the members of the 1992 Master's Thesis Review Panel: Gerald Speitel (Chairman), Ryan Dupont, and C.P. Huang.

Engineering Science and CH2M Hill Doctoral Thesis Awards

Entries are sought for the 1993 Outstanding Doctoral Thesis Awards, one sponsored by Engineering Science, Inc., and the other 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 John Tobiason, Department of Civil Engineering,

University of Massachusetts, Marston Hall, Amherst, MA 01003. The theses 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, 1993 for dissertations completed during the 1992 calendar year. 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 selection will be made by September 1, 1993 so that the recipients and their advisors can be invited to the AEEP luncheon at the WEF meeting. The recipients of the 1992 awards were:

1992 Engineering Science Doctoral Award:

Lisa Alvarez-Cohen, "Cometabolic Biotransformation of Trichloroethylene and Chloroform by Methanotrophs-Experimental Studies and Modeling of Toxicity and Sorption Effects", under the supervision of Perry L. McCarty, Stanford University.

1992 CH2M Hill Doctoral Award:

Marc Edwards, "Ozonation: Transformation of Natural Organic Matter, Effect on Organic Matter - Coagulant Interactions, and Ozone-Induced Particle Destabilization", under the supervision of Mark Benjamin, University of Washington.

Our thanks to Engineering Science and CH2M Hill for their generosity in sponsoring these awards and to the members of the 1992 Doctoral Thesis Review Panel: Sandra Woods (Chair), John Tobiason and James Symons.

AEEP Outstanding Paper Award

Nominations are sought for the 1993 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 Amit Amirtharajah, School of Civil Engineering, Georgia Institute of Technology, Atlanta, GA 30332, Tele. (303) 492-6274, FAX (303) 492-7317. 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 the practice of environmental engineering. Nominations must be made by members of AEEP who are not an author or co-author of the paper; they are due July 15, 1993.

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, and at least one of the authors must be living. The previous winners were:

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| 1983 | Stumm, W., and J.J. Morgan, "Chemical Aspects of Coagulation," <i>Jour. Amer. Water Works Assn.</i> , August, 1962. |
| 1984 | Stumm, W., and C.R. O'Melia, "Stoichiometry of Coagulation," <i>Jour. Amer. Water Works Assn.</i> , May, 1968. |

