



Newsletter

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AUGUST, 1979

PRESIDENT'S CORNER

Professor P. Aarne Vesilind has completed our eighth annual survey of graduate student enrollments in Environmental Sciences and Engineering, and the results are of considerable interest. It is estimated that the total number of full time graduate students in Environmental Sciences and Engineering in 1978 was 2,479, of which 454 were in Environmental Sciences. **An additional enrollment of 1,463** part time graduate students was estimated, and a total of 568 undergraduate students were identified. Federal traineeships were estimated at 260. The total enrollment has dropped sharply since 1973, but has apparently stabilized at about 2,500 full time graduate students since 1976.

The relationship of this educational effort to the manpower needs of society will not be considered here, although my own observations at the University of North Carolina indicate many more offers of employment to our students with masters and doctoral degrees in Environmental Engineering than there are students available. Neither do I wish to address at this time the financial support for these graduate students, although the apparent ratio of about ten full time graduate students enrolled per federal traineeship available can be interpreted as indicating a significant return for this federal investment. Support for education and research in Environmental Sciences and Engineering requires substantial time and effort for faculty members, but decisions in these areas are controlled by the appropriate funding agencies. This is appropriate if the views of the academic community are considered in these decisions, and AEEP will continue to exert vigorous effort in this regard.

I do wish to consider here an aspect of this subject about which we do make decisions, i.e., the quality, content, and directions of our educational programs. While we must be receptive to the needs and views of those in the private sector and in government, decisions about educational programs reside largely within the academic community, along

with the responsibility for the consequences of these decisions. Society's ability to plan and implement programs for managing environmental quality and public health resides to a large extent with the 4,000 full and part time graduate students identified by Professor Vesilind's survey, and with their successors. In turn, the capabilities of these present and future students depend on the education we provide for them.

I would like to focus your attention on the forthcoming Fourth National Conference on Environmental Engineering. This conference is cosponsored by AEEP and the American Academy of Environmental Engineers. It will be held in Toronto, Canada on June 19 to 21, 1980 at the campus of the University of Toronto. These dates correspond to the Thursday, Friday, and Saturday immediately preceding the next conference of the International Association for Water Pollution Research (IAWPR) which is also in Toronto.

At this conference we will have an opportunity to discuss present and future educational needs in Environmental Sciences and Engineering, and to make decisions about them. I urge you to attend this conference. I urge you to participate in the planning of the conference. To get involved, contact Professor James W. Patterson, Chairman of AEEP's committee for planning the conference.

Charles R. O'Melia

AEEP DISTINGUISHED VISITING LECTURER

The AEEP visiting lecturer program alternates between North American and other candidates. Nomination of candidates from North America are solicited for a lecture tour to be arranged in the Spring of 1980. Nominations are also solicited for European/Asian/South American/African... candidates for a lecture tour in Spring, 1981. Suggestions for candidates should be sent before September 30 to G. Lee Christensen, Civil Engineering Department, Villanova University, Villanova, PA 19085.

AEEP MEMBER WINS HUBER AWARD

Dr. Ju-Chang "Howard" Huang, professor of civil engineering and environmental health at the University of Missouri-Rolla, is the recipient of the 1979 Walter L. Huber Civil Engineering Research Award conferred by the American Society of Civil Engineers (ASCE). Only five individuals, nationally, are nominated each year by ASCE's Technical Council on Research to be recognized for notable achievements of technical research in civil engineering.

Dr. Huang received his B.S. degree from National Taiwan University and M.S. and Ph.D. degrees from the University of Texas at Austin. He joined the faculty at UMR in 1967.

In the past 10 years he has directed 16 sponsored research projects and published more than 40 papers in technical journals, books, magazines and proceedings of professional conferences. At the present time he is directing two research projects. One is supported by the U.S. Environmental Protection Agency and the other by the Department of the Interior Office of Water Research and Technology.

Dr. Huang was the recipient of an American Society for Engineering Education/Ford Foundation Resident Fellow Award in 1972. He has been elected a Faculty Honor Member by UMR's Phi Kappa Phi Honor Society and an Eminent Engineer by Tau Beta Pi Honor Engineering Society. In 1976 he was named Young Engineer of the Year by the Rolla chapter of the Missouri Society of Professional Engineers.

AEEP ARCHIVES

Kurt Keeley, working under the direction of Dave Hendricks of the Archives Committee, is seeking to complete a collection of APSE and AEEP Newsletters. Anyone having any of the issues listed below is urged to help Kurt by sending them to:

Kurt Keeley
American Water Works Association
6666 W. Quincy Avenue
Denver, Colorado 80235

Volume No.	Issue No.
1	1,2,4
2	2
5	4
6	A11
7	A11
8	1,3
10	4
12	2

LAST CALL

As a service of the AEEP Membership, the Board of Directors has decided to publish the titles of theses completed each academic year by June 30. Only those lists submitted by the membership will be included in the listing. The next directory will appear early next fall for the 1978-79 work.

Time interval: July 1, 1978 to June 30, 1979

Classification of Titles:

Air Pollution
Agricultural Waste Management
Instrumental Methods of Analysis
Industrial Waste Treatment
Land Treatment
Non Point Pollution
Rivers, Estuaries, and Lakes
Solid Wastes
Water and Wastewater Treatment
Water Management

You may also use other classifications if there are a sufficient number of titles.

Format: "Title of Paper", Name of Author (Ph.D. or M.S.), X pp., Month, Year, Name of University (Name of Faculty Advisor).

Comments: Since the availability of documents varies, persons interested in a specific publication will be asked to contact the Faculty Advisor directly.

Deadline: Submit by August 31, 1979 to:

J. F. Judkins, Jr. and J. M. Morgan
Co-Editors
AEEP Newsletter
Department of Civil Engineering
Auburn University
Auburn, Alabama 36830

DEADLINE FOR OCTOBER NEWSLETTER

Items to be included in the next issue should be received by the Editors no later than September 6, 1979. Please submit any items of general interest to the profession to:

J. F. Judkins, Jr. and J. M. Morgan
Co-Editors, AEEP NEWSLETTER
Department of Civil Engineering
Auburn University
Auburn, AL 36830
(205-826-4320)

FOURTH NATIONAL CONFERENCE ON ENVIRONMENTAL ENGINEERING EDUCATION

The pace of preparation for the 4th National Conference on Environmental Engineering Education is accelerating, under the guidance of the Conference Steering Committee. This Committee was designated by the Conference Co-sponsors, AEEP and the American Academy of Environmental Engineers, to organize the conference and select those issues to be addressed by the conferees. The committee membership is:

Russ F. Christman
George P. Hanna, Jr.
Roger A. Minear
Joe G. Moore, Jr.
August T. Rossano
Roy F. Weston
James W. Patterson, Chairman

The University of Toronto, through Gary Heinke, Chairman of the Department of Civil Engineering, has extended an invitation to host the conference. This offer has been accepted, and the conference will take place on the University of Toronto campus in downtown Toronto. The conference timing is Thursday-Saturday noon, June 19-21, 1980. The times and location were selected to complement the IAWPR Conference in Toronto and the APCA Conference in Montreal, both scheduled for the following week of June 22-27, 1980. Professor Barry Adams of the University of Toronto has accepted responsibility for local arrangements.

The first morning of the conference will be devoted to a discussion of the conference format and objectives plus presentation of a series of brief reports reviewing the current status of environmental engineering education. The remainder of the conference will consist of workshop and plenary sessions dealing with the four focus issues selected by the Steering Committee. The four issues are listed here, together with the name(s) of the Steering Committee liaison member(s) with responsibility to oversee the pre-conference preparation associated with that issue. Listed after each major issue are a few example sub-issues.

CHARACTERISTICS OF EXCELLENCE IN ENVIRONMENTAL ENGINEERING PROGRAMS — Rossano and Hanna

- Baccalaureate Requirements for Graduate Study
- Sources and Types of Student Support
- Student:Faculty Ratios
- Breadth of Academic Offerings
- Accreditation of the First Degree
- The Unique Problems of Programs of Limited Faculty Size

ESSENTIAL COMPONENTS AND THEIR BALANCE IN ENVIRONMENTAL ENGINEERING EDUCATION — Moore

- Foundation Science Disciplines
- Internships
- The Role of Research and/or Independent Study
- The Role of Continuing Education
- Building Professionalism

THE RELATIONSHIP OF BACCALAUREATE TO GRADUATE ENVIRONMENTAL ENGINEERING EDUCATION — Christman

- Undergraduate Options, Minors and Majors
Breadth vs. Depth
- Baccalaureate Degrees in Environmental Engineering
- Graduate Training of the Baccalaureate Environmental Engineer
- Training the Baccalaureate Scientist
- Interfacing Baccalaureate Engineers with Graduate Environmental Engineering Programs

MICRO vs. MACRO ORIENTATION IN ENVIRONMENTAL ENGINEERING EDUCATION — Weston

- Specialization vs. Generalization at the Masters Level
- The Credibility of Non-Engineering Components of Graduate Environmental Engineering Programs
- Integration of Air, Water and Other Environmental Engineering Subjects
- The Proper Role of the Practicing Professional in Influencing Educational Directions

Prior to the conference itself, draft position papers will be developed for each conference issue. Persons interested in participation in this activity, or any other pre-conference or conference activity, may contact either the Steering Committee member assigned to a particular issue, or Jim Patterson, Conference Chairman.

UNDERGRADUATE REGISTER AVAILABLE

Copies of the *Register of Undergraduate Environmental Engineering Programs* are now available at a cost of \$6.00 each postpaid. Order from:

Dr. D. B. Aulenbach
Department of Chemical and
Environmental Engineering
Rensselaer Polytechnic Institute
Troy, New York 12181

CALL FOR PAPERS

ASCE

The Environmental Engineering Division of ASCE is soliciting papers for the July, 1980 National Conference to be held in New York City. Abstracts of technical papers in the areas of (1) Provision of safe, palatable, ample public water supplies, (2) The proper disposal of or recycling of wastewater and solid wastes, (3) The adequate drainage and disposal of or recycling of urban and rural storm water runoff, (4) The control of surface and subsurface water, soil, and air pollution, (5) Handling and disposal of hazardous wastes, (6) The social and environmental impacts of technological advances in the above areas as well as in related public health areas such as (6.1) Provision of adequate sanitation in urban, rural, and recreational areas (6.2) The elimination of industrial and agricultural health hazards.

The abstract should include the following information: title of paper; title, affiliation, and address of the author or authors, with the person presenting the paper being so indicated in the case of multiple authors; indication if the work has been or will be published elsewhere by July, 1980 and if so where; and the approximate date when the work was or will be completed.

The length of the abstracts should be 500 to 1000 words. In addition, data should be provided or its availability indicated where applicable. The abstracts will be reviewed by the National Abstract Review Committee and the Local Program Committee, with selection based on quality, technical content, originality and applicability.

Deadline for receipt of abstract: **November 30, 1979**

Forward abstract to:

Walter P. Saukin
Manhattan College
Dept. of Civil Engineering
Riverdale, N.Y. 10471

AWWA

The AWWA T&P Research Committee is seeking papers on research work in the water supply field for presentation at the 1980 Annual Conference in Atlanta, Georgia, June 22-27. Three sessions have been requested by the committee for presentation of research papers.

Papers will be chosen from abstracts received no later than Friday, November 30, 1979. All persons submitting abstracts will be notified by January 30, 1980, whether or not their papers were selected. Research papers dealing with water quality control, distribution, management, and water resources are desired.

Eight copies of both an information sheet and a 300-to 1,000-word abstract of the research paper should be submitted to E. F. Spitzer, AWWA, 6666 West Quincy Avenue, Denver, CO 80235. Abstract information sheets can be obtained from the same source.

ROTATING BIOLOGICAL CONTACTORS

Papers are invited for the First National Symposium On Rotating Biological Contactor Technology, to be held February 4 to 6, 1980, at the Seven Springs Mountain Resort, Champion, Pennsylvania, under the sponsorship of the University of Pittsburgh in cooperation with U.S. Army Construction Engineering Research Laboratory and U.S. Environmental Protection Agency. The objective of this symposium is to discuss the state-of-the-art understanding of the theoretical as well as practical aspects of the treatment of wastewater by rotating biological contactor and to identify suitable approaches for the design of such advanced biological treatment system. Authors must present a formal abstract of the proposed paper by September 30, 1979. All abstracts, offers of papers, and general inquiries may be directed to:

Dr. Yeun C. Wu
944 Benedum Hall
Department of Civil and
Environmental Engineering
University of Pittsburgh
Pittsburgh, Pennsylvania 15261
(412-624-5357)

MEETINGS OF INTEREST

A National Conference, "Urban Stormwater and Combined Sewer Overflow (CSO) Impact on Receiving Water Bodies" will be held November 26-28, 1979 at the Holiday Inn, International Drive, Orlando, Florida. The Conference is sponsored by the U.S. Environmental Protection Agency, American Society of Civil Engineers, Florida Section and the University of Central Florida at Orlando.

This Conference will provide means for disseminating the technology and data acquired through existing receiving water projects to researchers, practitioners and other conference attendees. The first two days will cover available knowledge related to stormwater impacts on lakes, rivers, and estuaries. Also, methodologies for stormwater impacts assessment, stormwater management and ecological responses will be presented. A workshop on practical application and research needs will be held at the end of the Conference.

Further information can be obtained from:

Dr. Yousef A. Yousef, P.E.
Professor of Engineering
University of Central Florida
College of Engineering
Orlando, FL 32816

INTERNATIONAL ASSOCIATION ON
WATER POLLUTION RESEARCH

Following is a schedule of future IAWPR conferences.
Details on any of the conferences may be obtained from:

Secretary-Treasurer
International Association on
Water Pollution Research
Chichester House
278 High Holborn
London WC1V 7HE
UNITED KINGDOM

TREATMENT OF DOMESTIC AND INDUSTRIAL
WASTEWATERS IN LARGE PLANTS

A workshop to be held in Vienna, Austria on September 3-7, 1979. Emphasis will be on the interaction between design and operation of large wastewater treatment plants.

POLLUTION OF THE MEDITERRANEAN

A specialized conference to be held at Palma de Mallorca, Spain on September 24-27, 1979.

TENTH INTERNATIONAL CONFERENCE OF IAWPR

The biennial international conference to be held in Toronto, Canada on June 23-27, 1980. The deadline for submission of manuscripts for consideration by the program committee is September 1, 1979.

ACADEMIC MARKET PLACE

SCHOOL: Mississippi State University
POSITION: Assistant Professor (Environmental Engineering)

QUALIFICATIONS: B.S. in Engineering and Ph.D. in Environmental Engineering

RESPONSIBILITIES: Graduate and undergraduate teaching and developing program of individual research.

APPLICATION DEADLINE:

CONTACT: Dr. Robert M. Scholtes, Head
Department of Civil Engineering
Mississippi State University
Mississippi State, MS 39762

SCHOOL: Utah State University
POSITION: Research Assistant, Associate or Full Professor

QUALIFICATIONS: Ph.D. in Environmental Science and/or Engineering or related field

RESPONSIBILITIES: Research and teaching environmental engineering courses at graduate and undergraduate level.

APPLICATION DEADLINE: Starting September 1, 1979.

CONTACT: Dr. James H. Reynolds, Head
Division of Environmental Engineering, UMC
41
Utah State University
Logan, Utah 84322

SCHOOL: University of California, Berkeley
POSITION: Assistant Professor in Sanitary/Environmental Engineering

QUALIFICATIONS: Ph.D. Sanitary/Environmental Engineering

RESPONSIBILITIES: Teach undergraduate and graduate courses.

APPLICATION DEADLINE: September 1, 1979

CONTACT: Chairman
Division of Hydraulic and Sanitary Engineering
Department of Civil Engineering
University of California
Berkeley, CA 94720

SCHOOL: Clemson University
POSITION: Associate or Full Professor (Nuclear/Environmental Area)

QUALIFICATIONS: Earned Ph.D. and genuine engineering orientation.

RESPONSIBILITIES: Graduate level teaching, research, public service and support of Department's ongoing programs in air quality and environmental chemistry.

APPLICATION DEADLINE: October 1, 1979

CONTACT: Dr. Thomas M. Keinath, Head
Department of Environmental Systems Engineering
Clemson University
Clemson, SC 29631

SCHOOL: Louisiana State University
POSITION: Assistant Professor (others considered)

QUALIFICATIONS: Ph.D. (or equivalent)
RESPONSIBILITIES: Undergraduate and graduate teaching and research.

APPLICATION DEADLINE:

CONTACT: Professor Ara Arman, Chairman
Department of Civil Engineering
Louisiana State University
Baton Rouge, LA 70803

SCHOOL: University of Tennessee — Knoxville
POSITION: Open

QUALIFICATIONS: B.S. in Engineering, Ph.D. in Civil or Environmental, EIT or PE.

RESPONSIBILITIES: Teaching undergraduate and graduate courses, obtain research, student counseling, committee work and public service.

APPLICATION DEADLINE:

CONTACT: Dr. Roger A. Minear
Chairman of Search Committee
Civil Engineering Department
University of Tennessee
Knoxville, TN 37916

SCHOOL: University of Missouri — Rolla
POSITION: Assistant or Associate Professor (tenure track)
QUALIFICATIONS: Ph.D. or equivalent experience
RESPONSIBILITIES: Teach undergraduate or graduate level and develop research.
APPLICATION DEADLINE: Position available September 1979.

CONTACT: Dr. Ju-Chang (Howard) Huang
Professor and Area Head
Environmental and Sanitary Engineering
University of Missouri — Rolla
Rolla, MO 65401

SCHOOL: University of Missouri — Rolla
POSITION: Visiting Faculty (Assistant, Associate or Full) — one year.

QUALIFICATIONS:
RESPONSIBILITIES: Teach undergraduate and graduate courses and supervise graduate students.

APPLICATION DEADLINE: Appointment starting September 1979 or January 1980

CONTACT: Dr. Ju-Chang (Howard) Huang
Professor and Area Head
Environmental and Sanitary Engineering
University of Missouri — Rolla
Rolla, MO 65401

SCHOOL: Oklahoma State University
POSITION: Assistant or Associate Professor of Civil Engineering

QUALIFICATIONS: Ph.D. with major in Bioenvironmental Engineering, industrial experience is desired, registration or potential for registration.

RESPONSIBILITIES: Teaching and research in bio-environmental areas.

APPLICATION DEADLINE: Position will be filled by September 1, 1979

CONTACT: Professor J. V. Parcher, Head
School of Civil Engineering
Oklahoma State University
Stillwater, OK 74047

SCHOOL: University of Arkansas, Monticello
POSITION: Assistant Professor of Agricultural Engineering and Extension Agricultural Engineer

QUALIFICATIONS: Ph.D. degree (one degree B.S., M.S. and/or Ph.D. must be in Agricultural or Civil Engineering)

RESPONSIBILITIES: 50% research and 50% extension in soil and water field of agricultural engineering.

APPLICATION DEADLINE:

CONTACT: Dr. Gerald W. Brown, Director
Southeast Research and Extension Center
University of Arkansas, Monticello
Monticello, AR 71655

SCHOOL: The Pennsylvania State University
POSITION: Assistant Professor (tenure track)
QUALIFICATIONS: B.S. and Ph.D. in Civil Engineering majoring in Water Resource systems with background in hydraulic and hydrology.

RESPONSIBILITIES: Teach undergraduate and graduate courses, direct graduate students and conduct research in water resources area.

APPLICATION DEADLINE: July 15, 1979

CONTACT: R. E. Untrauer, Head
Department of Civil Engineering
The Pennsylvania State University
212 Sackett Building, Box E
University Park, PA 16802

SCHOOL: Rice University
POSITION: Associate or Full Professor

QUALIFICATIONS: Earned Ph.D. in Environmental, Civil or Chemical Engineering

RESPONSIBILITIES: Conducting active research program and teaching undergraduate and graduate courses.

APPLICATION DEADLINE:

CONTACT: Dr. C. H. Ward, Chairman
Department of Environmental Science and Engineering
Rice University
Houston, TX 77001

SCHOOL: Rice University
POSITION: Visiting Professor - 1979-80 academic year
QUALIFICATIONS: Earned Ph.D. in Environmental, Civil or Chemical Engineering

RESPONSIBILITIES: Teaching undergraduate and graduate courses and participating in funded research program.

APPLICATION DEADLINE:

CONTACT: Dr. C. H. Ward, Chairman
Department of Environmental Science and Engineering
Rice University
Houston, TX 77001

SCHOOL: Tufts University

POSITION: Open

QUALIFICATIONS:

RESPONSIBILITIES: Teaching and research in industrial pollution control and/or toxicology.

APPLICATION DEADLINE: Appointment for September 1980

CONTACT: Dr. N. Bruce Hanes, Chairman
Department of Civil Engineering
Tufts University
Medford, MA 02155

**ASSOCIATION OF ENVIRONMENTAL
ENGINEERING PROFESSORS
Attn: Dr. Michael J. Humenick
Dept. Civil Engineering
The University of Texas at Austin
Austin, Texas 78712**

The publications listed below are available from AEEP. Prepayment must accompany all orders. Please forward a check or money order made payable to AEEP to the above address.

NOTE: The Order Form below must be completed and returned with your order. For orders of five or less volumes, include \$1.25 for postage and handling; for 6-10 volumes, \$2.50; for 11-15 volumes, \$3.75, etc. Federal Tax Identification Number:

QUANTITY	TITLE	PRICE	EXTENSION
	*Environmental Engineering Unit Operations and Unit Processes Manual	\$12.00	
	Water Chemistry Laboratory Manual	\$ 5.00	
	Register of Environmental Engineering Graduate Programs	\$ 3.00	
	Interdisciplinary Education Programmes for Environmental Engineers, Workshop	\$10.00	
	Aquatic Laboratory Manual	\$ 7.00	
	Trends and Professional Manpower Production Capabilities in USA Educational Institutions	\$ 3.00	
	Proceedings of the AEEP/NSF "Fundamental Research Needs for Water and Wastewater Treatment Systems" Conference, December 15, 1977	\$ 0.00	
		Texas 5% Sales Tax	
		Postage & Handling	
		TOTAL ENCLOSED	

*Environmental Engineering Unit Operations and Unit Processes Manual is available to members of AEEP for \$6.00 a copy. Members may order additional copies at membership rate for their students.

SHIPPING ADDRESS:

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