

ASEE

Civil Engineering Division



October 1995 Newsletter

Editor: Alan L. Prasuhn

MESSAGE FROM THE CHAIRMAN

We had an excellent program in Anaheim including two joint sessions with Construction Engineering. Special thanks to the session chairs for their work:

- Tony Collins, Clarkson University
- Bobby Price, Louisiana Tech
- Ralph Ellis, University of Florida
- Jiwan Gupta, University of Toledo
- Tom Lenox, U.S. Military Academy

Next year we will be at the Sheraton Hotel in Washington, D.C. and the call for papers appeared in the May/June 1995 issue of the PRISM.

Sessions planned for Washington include: Outcomes Assessment, the ABET Criteria/Accreditation Process, Innovative Teaching Methods in Civil Engineering, and Applications of Personal Computers in Civil Engineering Programs. Our program fits very well with discussions going on regarding new ABET criteria and the educational initiatives coming from the ASCE Education Conference. The revised criteria now being discussed have as their core concept an outcomes assessment process for each program.

Howard "Nugget" Dunn is the program chair for Washington, and I am confident he will continue our tradition of excellent programs. As we did last year, we used our planning meeting on Tuesday to develop the preliminary program for 1997 in Seattle, WA. This allows us to get a call for papers in the PRISM and invite wide participation in the program.

William Kelly
University of Nebraska - Lincoln

College Industry Education Conference

Plan to attend

1996 CIEC

ASEE

College Industry Education Conference

January 25-29

San Jose, California

for information contact:
Ken Gowdy (913) 532-5590
kgowdy@kaum.kau.edu

Sessions this year at the CIEC Conference range from "Leading Edge Technology in Distance Learning: Opportunities for New Partnerships" to Legal Issues in Technology Education".

CIVIL ENGINEERING DIVISION ASEE EXECUTIVE BOARD 1995-1996

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EDITOR'S COLUMN

This is my second year as Newsletter Editor and I look forward to the continued opportunity to communicate with the Civil Engineering Division membership through this medium. I had intended to use this column to reflect on the Anaheim ASEE Conference last June, but a last minute medical problem resulted in a cancellation of all travel plans. Now, all that I know about the conference is as a result of reading the session reports contained in this newsletter starting on page 4. Upon further reflection, that is all many of you will hear about the conference, so it behooves the session chairs to provide as complete a report as possible about the subject matter and discussions at their sessions. To the session chairs, thank you very much for your input.

In accordance with the Civil Engineering Division By-laws, the Program Chair has made the following committee appointment for 1995/96:

Nominating Committee:

Tom Mulinazzi	Immediate Past Chair
Bill Kelly	Present Chair
Jerry Seeley	Active Past Chair
Howard Dunn	Vice Chair Elect (<i>Ex Officio</i>)

Awards Committee:

Fred Beaufait	Chair, Past Chair-Two Years
Robert M. Henry	Past Chair-One Year
Tom Mulinazzi	Immediate Past Chair
Alan Prasuhn	The Division Editor

Remember to mark your calendars and start to plan for the ASEE Annual Convention in Washington, D.C. next June 23-26, 1996 at the Sheraton Hotel. For those

who really plan ahead, please note the future annual conference schedule:

1997	Milwaukee, Wisconsin
1998	Seattle, Washington
1999	Charlotte, North Carolina
2000	St. Louis, Missouri

As always, I welcome (desperately) all contributions, announcements, or information you would like to share with the rest of the division. Please send items to me at the address below. In the meantime, have a most successful academic year.

Newsletter Editor

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1995 Civil Engineering Award Winners

Bob Henry, the outgoing Awards Committee Chair, has reported the winners of the 1995 Civil Engineering Division awards. The 1995 Honorees are:

George Wadlin Award *Walter LeFevre*

and

Glen L. Martin Best Paper Award
Steven J. Ressler
for his paper entitled "West Point Truss
Bridge Competition"

Congratulations to both winners!

1995 ASEE ANNUAL MEETING

Engineering Education: Investing in the Future

A summary of the four sessions sponsored by the Civil Engineering Division:

Session 1615 - Facilitating Cross-Disciplinary Cooperation

Three different educational experiences were described to enable students to understand the importance of interdisciplinary team activities within Civil Engineering projects. Paul S. Chinowsky and Jorge A. Venagas described the comprehensive on-site studies, by Georgia Institute of Technology students, of Atlanta's Olympic Center construction projects that included planning, design, and construction considerations. Through these studies students learned of the complexities of large-scale projects and the importance of interdisciplinary cooperation. Case studies are being documented and will be available to other institutions.

Amy Zander, Susan Powers, and Norbert Ackermann of Clarkson University described the advantages and organization of Sophomore and Senior year interdisciplinary design projects. The importance of projects based on real world situations and site investigations was stressed. The sophomore level projects had ten in a team. Experienced upper-class members were employed as team leaders. The senior year project was the capstone design experience based upon an annual hazardous waste cleanup challenge proposed by the Waste Management Education and Research Consortium. The Clarkson team of 15 participants included Civil, Mechanical, Chemical and MBA students. The team was divided into 3 groups each headed by Master of Engineering Students.

Vincent Drnevich presented a paper, "Initiating and Rewarding Cross-disciplinary Cooperation in CE: It's a Matter of Dollars and Sense." The importance of strong support for such activities by the university administration as well as having enthusiastic faculty to develop such programs was discussed. The term interdisciplinary was described as Drnevich as an activity that could be within the department, among departments across colleges, with outside entities or any combination of these groups.

*Submitted by Tony Collins
Clarkson University*

Session 2515 - Continued Professional Competency

"The session on "Continuing Professional Competency: Why or Why Not", developed by the Committee on Professional Practice, was informative, interesting and combative, generated a lot of questions and lively discussion, and as such was considered very successful. Approximately, 60 people attended the session, with many expressing their thoughts on the subject.

Joe Paul Jones, P.E., Past President of the National Society of Professional Engineers, gave an overview and background information of CPC, presented both the National Council of Examiners for Engineering and Surveying's Model Guidelines for mandatory CPC programs for professional licensure renewal and the NSPE position on CPC, and expressed his own personal views which indicated Jones is a proponent of a mandatory CPC program.

James W. Poirot, P.E., Past President of the American Society of Civil Engineers, presented compelling arguments for the pro side of the question of a mandatory CPC program for both licensure renewal and for continuing membership in ASCE.

Bobby E. Price, P.E., Moderator for the session and University Distinguished Civil Engineering Professor at Louisiana Tech University, presented a slide program refuting the benefits of a mandatory CPC program."

*Submitted by Bobby E. Price
Louisiana Tech University*

Session 3215 - Integration of Design and Construction

This session was one of two cosponsored with the Construction Engineering Committee. Dr. Paul Chinowsky talked about a course at Georgia Tech which involves integration of actual design/construction related to the upcoming Olympics in Atlanta. Technology is used to break down the barriers between design and construction. One of the ways this is done is by extensive use of video taping. Dr. Senir talked about directional drilling and its applications in construction and some considerations in design. Dr. Mark Federle wrapped up the session with a talk on the integration of computers into civil and construction engineering curricula. The work described was developed as part of an NSF Synthesis Coalition. Following the talks there was some lively discussion which suggests that there should be more joint sessions with the construction committee.

*Submitted by William Kelly
University of Nebraska - Lincoln*

Session 3515 - What Should We Be Teaching Civil Engineering Undergraduates About Structural Analysis?

The Committee on Computer Applications sponsored a thought-provoking session at the 1995 Annual Conference on "What Should We Be Teaching Civil Engineering Undergraduates About Structural Analysis?" This session reviewed the manner in which we teach structural analysis to undergraduates from the perspectives of five different institutions -- addressing the following questions:

- Which analysis methods are the most important for an undergraduate curriculum?
- Which classical methods have been overcome by the personal computer revolution?
- How do we balance the teaching of fundamentals, the use of hand calculations, the understanding of commercial software packages, the ability to use numerical methods, the employment of "classical" methods, and the art of computer modeling?

Five civil engineers with extensive experience in teaching undergraduate structural analysis formed a panel to discuss these questions at the conference. They included Russell Mills (California State University, Chico), Bob Henry (University of New Hampshire), David Fletcher (University of the Pacific), M. Zoghi (University of Dayton), and Tom Lenox (United States Military Academy). Russell Mills and Bob Henry gave the principal presentations -- discussing

their undergraduate structural analysis courses in detail and their philosophy on incorporating modern analysis methods into an undergraduate structural engineering curriculum. The final 45 minutes of the session were devoted to a VERY lively panel and group discussion. The approximately 30 attendees at the session joined with the five speakers in a free-flowing discussion on this timely topic. All five papers are included in the Conference Proceedings.

*Submitted by Tony Collins
United States Military Academy*

CALL FOR NOMINATIONS FOR CIVIL ENGINEERING DIVISION AWARDS

Fred Beaufait, Chair of the Awards Committee for 1995/96 has issued a call to the Civil Engineering Division membership for award nominations for the annual division awards. These include the following:

1. *Glen L. Martin Best Paper Award:* This may include technical papers, or those with an educational focus published in ASCE journals or proceedings or ASEE conference proceedings.
2. *George Wadlin Service Award:* This award is made for meritorious service to civil engineering education in general and the CE Division in particular.

Please send division award nominations directly to Fred at:

Fred Beaufait
College of Engineering
Wayne State University
Phone: 313/577-3775
FAX: 313/577-5300

E-Mail: beaufait@dbo.eng.wayne.edu

He would also like to encourage the division membership to consider making nominations for appropriate ASEE national awards. Too few of our Division members who have made significant contributions to the profession and the society are recognized at the national level. We as a Division should do something to rectify this. For the present, please consider the list of national ASEE awards and nominate suitable candidates. These nominations go directly to ASEE Headquarters. Perhaps the Civil Engineering Division should include the nomination of national awards in the charge to the Awards Committee.

Please note that all nominations must be submitted before Jan 1, 1996.

NOMINATING COMMITTEE RESULTS

The Nominating Committee has made the following nominations for next year. The election ballot will accompany the Spring Newsletter.

Director

Dave Fletcher	University of Pacific
Farouk P. Mishu	Tennessee State University
Alan Prasuhn	Lawrence Technological University

Program Chair/Division Chair-elect

Tom Leno	United States Military Academy
J.P. Mohsen	University of Louisville

EFFECTIVE TEACHING INSTITUTES

A Testimonial

Are you new to engineering education? Have you been around awhile and would like to revitalize your teaching techniques? If so, I highly recommend that you attend one of the National Teaching Effectiveness Institutes offered by ASEE. They usually occur prior to the Annual Meeting.

This past June, I took the opportunity to attend the one in Anaheim. The Institute was co-taught by Rich Felder from North Carolina State University and Jim Stice from the University of Texas at Austin. The Institute format included discussions, demonstrations and working groups that dealt with such topics as learning styles, testing, evaluation, cooperative learning, lectures, student problems and faculty problems. The Institute lasted for three days.

Going into the Institute, I was not sure how much new knowledge I would come away with--after all, I have been teaching for 22 years and have tried a wide variety of teaching techniques. Well, to make a long story short, this was one of the best experiences I have had. I just wish I had been able to attend one 22 years ago! As a former Dean and Department Chair, I recommend that those of you in these positions sponsor your new assistant professors, as well as seasoned veterans, for attendance at one of these institutions. It will be money well invested!

*Gerald Seeley
Valparaiso University*

TQM IN CIVIL ENGINEERING EDUCATION

The Department Heads Forum at Denver was entitled "Total Quality Management in the Civil Engineering Department." Kent Wray led off and reported the results of a survey of the use of TQM by civil engineering departments. More than twenty departments already introduce TQM in civil engineering courses. Don Hancher described the experience at the University of Kentucky. He emphasized the importance of training for the leadership team before embarking on a TQM program. Additional presentations were made by faculty from Purdue, Utah State, and Clemson. TQM is making inroads in the way we look at civil engineering education. TQM, or some variation of it, is likely to become an integral part of civil engineering education with the increased demands for accountability, outcomes assessment, and continuous improvement. For more information on the forum, contact Dr. Kent Wray, Department of Civil Engineering, Texas Tech University, Lubbock, TX.

*William Kelly
University of Nebraska*

APPENDICES:

1. Civil Engineering Division Business Meeting Minutes -- June 26, 1995
2. Civil Engineering Division Treasurer's Report -- Fiscal Year 1995

American Society for Engineering Education

Civil Engineering Division Business Meeting Minutes Monday, June 26, 1995 1995 Annual ASEE Meeting Anaheim, CA

1. Call to order at 1:05 PM by the Chairman, Tom Mulinazzi
2. The new officers of the Division were introduced. They are:

William E. Kelly	Chairman
Howard C. Dunn, Jr.	Vice Chairman (Program Chairman)
Vincent P. Drnevich	Secretary/Treasurer
James M. Nau	Director
3. The minutes of the 1994 meeting were distributed. There were no changes. The minutes were accepted unanimously.
4. Secretary/Treasurer's Report. The treasurer's report was distributed and the Treasurer explained several expenditures and deposits. The report was discussed and was accepted unanimously.
5. The Program Chairman, Bill Kelly, discussed details of upcoming events. He offered thanks and congratulations to the committee chairmen, Bobby Price, Ralph Ellis, Jiwan Gupta, and Tom Lenox, and thanked Norbert Ackermann for substituting as moderator of the session on Educational Policy. He announced the locations and times of the RAP session, the planning luncheon, and the banquet.
6. Bill Kelly gave a report on the New Engineering Educator Success Kit. The Kit is completed. Initially the CE Division planned to distribute the Kits to CE department heads nationwide. ASEE has expressed interest in providing the Kits nationally @ \$20 per copy and sharing profits with the division. One problem is some copyrighted material from Kansas State University. KSU agreed to our initial planned use - copies to the CE Departments - but a general distribution for profit was not included in that agreement. We will distribute the initial copies as planned. This was approved and budgeted at the Edmonton meeting. Vince Drnevich moved to proceed with the ASEE proposal for distributing a version without the copyright materials. The motion was approved unanimously. The estimated budget for the CE Division distribution is \$3800.00. This is slightly under the \$4000.00 approved at the last yearly meeting to publish and distribute the kit.

7. Chairman Tom Mulinazzi reported that all activities related to the 1994 convention had been completed and everything had gone smoothly.

8. New Business:

8.1 Tom Mulinazzi announced that Howard Dunn would be the Program Chair for next year's meeting in Washington, DC.

8.2 Vince Drnevich gave a report on the results of the recent ASCE Education Conference in Denver. An eight person task force is to be named and tasked to: Create a new model for CE education; Develop a strategic plan for implementation of the model; and complete implementation within four years.

8.3 New "Outcome Oriented" criteria being considered by ABET were discussed. These criteria are early in the developmental stage. They involve a mindset change. There was some discussion as to how this process will effect the program. Walt LeFevre noted that the specifics deleted from the criteria would likely reappear in a document explaining the new generalized terms.

9. The meeting was adjourned by the Chair at 1:41 PM.

Submitted by Howard C. Dunn, Jr., Secretary/Treasurer, Civil Engineering Division, ASEE



**Treasurer's Report
Civil Engineering Division, ASEE
Fiscal Year 1995**

I. Operating Budget Account

Fiscal Year	Budget Amount	Expenditures	Balance
1994	\$787.50	\$787.50	\$0.00
1995	\$826.88	\$498.47	\$328.41

Allowable expenditures from this account are limited. Awards, travel, and personnel expenses are specifically prohibited.

The present balance is available for allowable expenditures through September 1995. Balances at the end of the fiscal year are returned to ASEE national headquarters.

II. Banking and Accounting Service System (BASS) Account

Fiscal Year	Income	Expenditures	Balance
1994	\$3305.40	\$1340.63	\$15,238.38
1995	\$1387.32	\$1000.04	\$15,625.66

Six hundred dollars were donated on 17 February 1995 to partially cover the 1994 social in Edmonton. The social was paid for in two installments: \$235.24 (22 July 94) and \$519.00 (2 April 95) for a total of \$753.24. The \$153.24 difference between the gift and the total cost was covered by BASS funds.

Estimated additional income from dues and interest for the third and fourth quarters is approximately \$1500.00. Expenditures are estimated at \$500.00 leaving a balance at the end of FY 95 of just over \$16,600.00.

Copies of ledgers for both accounts are on the back of this sheet. Expenditures are current up to 25 June 1995. Deposits are current up to the end of the second quarter (31 March 1995).

Report submitted by Howard C. Dunn, Jr., Secretary/Treasurer, Civil Engineering Division, ASEE.

**AMERICAN SOCIETY FOR ENGINEERING EDUCATION
CIVIL ENGINEERING DIVISION
FINANCIAL ACCOUNTS**

OPERATING BUDGET ACCOUNT

ACCOUNT NUMBER 360006

Date	Credits			Debits	Balance	Explanation
	Dues	Interest	Other			
10/1/92					\$0.00	Beginning Balance FY 94
10/1/93			\$787.50		\$787.50	FY 1994 Funds provided by ASEE
1/12/94			\$563.19		\$224.31	Dec 93 Newsletter (Hartman)
8/22/94			\$17.50		\$206.81	Copying expenses. (Mulinazzi)
9/6/94			\$206.81		\$0.00	Mar 94 Newsletter (Hartman)
10/1/94			\$826.88		\$826.88	FY 1995 Funds provided by ASEE
12/20/94			\$310.31		\$516.57	Dec 94 Newsletter (Lawrence Tech)
5/10/95			\$188.16		\$328.41	Mar 95 Newsletter (Lawrence Tech)

BANKING AND ACCOUNTING SERVICE SYSTEM (BASS) ACCOUNT

ACCOUNT NUMBER 320006

Date	Credits			Debits	Balance	Explanation
	Dues	Interest	Other			
1/1/95					\$13,273.61	Beginning Balance FY 94
12/31/93			\$297.98		\$13,571.59	Adjustment-ASEE Pd 10/13/92*
2/15/94			\$410.00		\$13,981.59	CH2M Hill, social hour @ Illinois
3/31/94	\$695.00	\$33.23			\$14,709.82	Second Quarter, FY 94
5/6/94			\$457.95		\$14,251.87	CC&A Meeting (Mulinazzi)
6/30/94	\$433.00	\$33.04			\$14,717.91	Third Quarter, FY 94
7/22/94			\$235.24		\$14,482.67	Social/Dinner Edmonton (Mulinazzi)
7/22/94			\$50.10		\$14,432.57	Awards 1994 (Seeley)
9/6/94			\$138.91		\$14,293.66	Mar 94 Newsletter (Hartman)
9/30/94	\$790.00	\$33.94			\$15,117.60	Fourth Quarter, FY 94
11/4/94			\$458.43		\$14,659.17	CC&A Meeting (Mulinazzi)
12/31/94	\$545.00	\$34.21			\$15,238.38	First Quarter, FY 95
2/17/95			\$600.00		\$15,838.38	Contribution for Edmonton Social
3/31/95	\$750.00	\$37.32			\$16,625.70	Second Quarter, FY 95
4/2/95			\$519.00		\$16,106.70	Social/Dinner Edmonton (Mulinazzi)
5/22/95			\$481.04		\$15,625.66	CC&A Meeting (Mulinazzi)

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