

Division newsletter

American Society for Engineering Education



DIVISION: Civil Engineering

EDITOR: Ron W. Eck

DATE: April 1987

West Virginia University

CHAIRMAN'S REMARKS

It seems as if I just wrote this column, however, it was last fall. This academic year has passed quickly, but I am looking forward to the summer and a chance to rejuvenate. I have had an opportunity to review the program for the upcoming Annual Conference to be held in Reno at the Bally Hotel and am quite excited about it. In addition to the strong CE division program put together by Mardy Thomas and her session moderators, there are several Mini-Plenaries that look to be of importance to all of us:

- Creativity: A Key to Academic Excellence and Industrial Competitiveness (Discussion of creativity in the curriculum)
- Chernobyl Revisited (Review of nuclear reactor accident including a presentation by V.A. Legasov of the Soviet Union)
- Value Systems in Conflict (Problems engineers face when personal, professional and organizational values conflict - including a presentation of the Challenger accident by Allan J. McDonald of Morton Thiokol.)

Not only does the Annual Conference provide formal sessions with emphasis on ways/methods to improve our teaching, it also provides ample opportunity to get together with

colleagues in informal settings to renew or make new friendships and to exchange ideas. I urge you to take advantage of these opportunities - bring a friend. I hope to see you there.

The Division remains strong and our membership is growing. I congratulate each of you in your efforts to recruit new members. By the time you receive this newsletter you should have received the Fall issue of the journal. The Spring issue is going to press and will be in the mail in April. This year we received more manuscripts than ever before. There is a Call for Papers published in this issue - please consider submitting a paper. Remember, it is a refereed journal. I would be especially interested in receiving papers discussing the proper role of computer usage in the curriculum.

Finally, it has been an honor to serve as your Chairman this past year. We can all be proud of the activities that the Division undertakes.

Gerald Seeley
Valparaiso University
Chairman, CE Division

**ASEE ANNUAL CONFERENCE -- RENO, NEVADA
CIVIL ENGINEERING DIVISION PROGRAM**

Monday, June 22, 1987

- 7:00 - 8:15 am Civil Engineering Executive Board Meeting
(closed business meeting)
- 8:30 - 10:15 am Non-Technical Issues Affecting Professional Practice
(moderated by M. Dean Parsons)
- 10:30 - 12:00 noon MINI-PLENARY -- Creativity: A Key to Academic
Excellence and Industrial Competitiveness
(co-sponsored by CE Division)
- 12:15 - 1:45 pm Civil Engineering Division Business Luncheon
(moderated by Gerald Seeley)
- 4:00 - 5:30 pm Hazardous Waste Issues in the West
(moderated by John Bird)
- 8:00 - 10:00 pm Civil Engineering Rap Session - Bring Ideas!
(refreshments)

Tuesday, June 23, 1987

- 8:30 - 10:15 am Excellence in Teaching
(moderated by Noel Tolbert)
- 12:15 - 1:45 pm Civil Engineering Division Planning Session
(moderated by Mardy Thomas)
- 2:00 - 3:45 pm How the Computer Enhances Civil Engineering Education
(moderated by Anis Farah)
- 4:00 - 11:00 pm Civil Engineering Social and Dinner
(scenic bus ride to Lake Tahoe; cocktails, dinner, and
dancing on sternwheeler on the lake)

Wednesday, June 24, 1987

- 8:30 - 10:15 am Computer Applications Poster Session and Software
Exchange
(moderated by Prahlad Pant)
- 12:15 - 1:45 pm Chi Epsilon Luncheon
- 2:00 - 3:45 pm Computer Literacy Expectations
(moderated by Robert M. Henry)
- 4:00 - 5:30 pm Are We Getting Top Quality Graduate Students?
(moderated by Frank Kulacki)

GET READY FOR RENO

The program for the 1987 ASEE Annual Conference should be arriving in your mail any day now. I think we have a great program planned for the Civil Engineering Division (See previous page). The theme of this year's meeting is "Engineering Focuses on Excellence." We have addressed this theme with sessions on "Excellence in Teaching," moderated by Noel Tolbert, and "How the Computer Enhances CE Education," moderated by Anis Farah. In addition, Dean Parsons will moderate a session on "Non-Technical Issues Affecting Professional Practice."

Two additional sessions will address computers. We will have a poster session and computer software exchange on Wednesday morning. Prahlad Pant who organized this session has several excellent speakers who will present posters and discuss their use of computers in education. The second session will be a panel discussion led by Robert Henry entitled "Computer Literacy Expectations." The panelists from industry and academe will present their views on this controversial topic and ask us to join in the discussion. It should be good session.

We are also co-sponsoring sessions which we felt addressed the concerns of civil engineers. "Hazardous Waste Issues in the West" (Session 1643) addresses the environmental aspects of waste management. "Are We Getting Top Quality Graduate Students?" (Session 3617) is a panel discussion sponsored by Civil and Mechanical Engineering, Engineering Mechanics and the Graduate Studies Divisions. The session will address all aspects of graduate education.

Our social for this year will take us away from the hotel and out to the scenic beauty of the West. We will leave in the late afternoon for a scenic bus ride into the mountains to Lake Tahoe. A drive along the lake will bring us to our dinner cruise on a sternwheeler. Be sure to sign up early for this social. It should be a great evening. SEE YOU IN RENO!

Mardy Thomas
Program Chairman

THE CANDIDATES

The report of the Nominating Committee was published in the Fall issue of the CE Division Newsletter. Since that time, Surinder Bhagat has withdrawn his name as a candidate for Vice Chairman. The ballot for voting is found on the last page of this issue. You are urged to cast your vote and return your ballot today.

It is important that you vote since there are two candidates for Director. Short biographical sketches of each of the candidates follow.

Mardith B. Thomas -- Mardy is an Associate Professor of Civil Engineering at Iowa State University. She received a Bachelor of Architectural Engineering degree from Iowa State University, a M.S. in Engineering Mechanics, and a Ph.D. in Structural Engineering from the University of Wisconsin. She is a registered engineer and worked for several years for a consulting firm in Ohio. She is a member of NSPE, Tau Beta Pi, Chi Epsilon, Sigma Xi, ASCE, ASEE, and Society of Women Engineers.

Dr. Thomas' current research interests include dynamic analysis of transmission line structures, semi-rigid connections, and computer applications in Civil Engineering. She is the chairman of the Civil Engineering Department Computer Planning Committee and is in charge of developing a large micro-computer laboratory for the Civil Engineering Department.

Noel Tolbert -- Professor of Civil Engineering at Tennessee Technological University. Prior to Tennessee Tech, Noel taught at Arkansas State University and the University of Arkansas at Little Rock. His industry experience included employment with Dow Chemical in Freeport and Houston, Texas and the former Nuclear Division of Union Carbide in Paducah, Kentucky. He is a registered Professional Engineer in Tennessee and previously in Arkansas and Kentucky.

principles. This definition sounds as though a very mechanical approach can be a very successful one in creating new knowledge. Indeed my experience suggests that most R&D sponsors manage their programs exactly as this definition suggests. The problem with all of this is that our innovation rate is low and slowing, the payoffs simply aren't coming very fast.

As a remedy, I'd like to suggest a corollary to this definition or perhaps a somewhat broader definition of research. Research is the art form of technology. It is a blend of human imagination, aspiration, and other similar personal characteristics coupled with skill and knowledge in an attempt to find a new and better path into the future. The probability of any given effort leading to success is approximately zero, but failures needn't be copied either. It is these human characteristics that lead one to survive those odds and pursue success in spite of those odds. Most of the research programs with which I have been associated have totally ignored this view of research and its implications, i.e., people are the essential part, not the mechanics of the process. These programs seem to seek to immediately divorce the human from his creative processes and results. As a consequence, I believe we face a slower diversification into new technologies than is possible and this results in societally undesirable economic consequences.

As supporting evidence, I'd like to offer a few thoughts. First, how many great original works of art, literature, painting, music, were ever done by a committee or corporation? Secondly, in "In Search of Excellence", the author suggests that the best managed companies in America today and the most successful innovators use this broader definition of research but only on an unofficial basis. They have one basic structure for research that is very mechanistic; but the one which achieves the most is the unofficial, sub

rosa one which allows for a great deal of human belief, spirit and vitality to be integrated into the R&D process.

In another somewhat allied area, I'd like to suggest that one of the difficulties in our society especially in attempting to pursue research, as an independent practitioner, is the constant need to interact with a number of business areas. Failure to succeed at any and all of these areas has devastating results on your primary purpose which is to carry out research on a new product or process. These areas are typically described as business areas and consist of sales, finance, management, and most likely, a little philosophy should be thrown into the pot. I'd like to suggest that all engineers could greatly benefit by at least some sort of compact basic introduction to some of the thinking in these areas. Many of us, indeed I believe more than half, leave the strict practice of engineering and move into other areas, such as research or management, marketing, etc. It seems to me that one of the duties of education is to prepare its supplicants to deal with the very problems they must face in life and especially those problems that are focused on them by social habit or accepted norms in business practices.

In conclusion, I'd like to suggest that the profession of engineering may be in great jeopardy simply because we have not changed to keep up with the social needs of engineers. Yet, at the same time, I believe that never in the history of the country or of engineers has there been a greater need for a professional society and representation for those that participate in it; a forum where opinions can be expressed and concerns discussed so that all the pieces of a successful and active profession may be put together into a unified whole.

TEACHING CORNER

CHEATING

While "high tech" cheating, such as changing a grade by breaking into a computer file, attracts a lot of attention, faculty members should be alert to the more traditional forms of dishonesty, says William G. Raffetto, dean of student services at San Jacinto College's south campus.

The most common kinds of cheating, says Mr. Raffetto, in an article in the Journal of the American Association of Community and Junior Colleges, include taking an exam or writing a paper for another student, copying a few sentences for a paper without using footnotes to credit the source, and copying information from answer sheets without doing the work independently.

Professors can prevent academic dishonesty by educating students about cheating, especially by showing them what constitutes plagiarism and what does not, says Mr. Raffetto.

Among the steps he recommends:

Discuss cheating with your students early in the class. Be sure the syllabus includes your approach to dealing with dishonesty and its consequences.

Give concrete examples of plagiarism. If possible, bring in papers that are plagiarized. Sometimes, students don't know they are cheating because they don't understand how to document their writing properly.

Never accuse a student of cheating in front of other students. You could be held liable for your remarks.

Obtain proof of cheating if possible. If a crib sheet is used, try to confiscate it without making a scene.

Don't leave the classroom during a test.

Once you've verified cheating, hold the student accountable for his behavior.

READERSHIP SURVEY RESULTS

A readership survey was conducted for the Newsletter last spring. Seventy-seven responses were received (9% response rate). Ninety-four percent of the respondents indicated that they read the "Guest Editorials" and wished to see this feature continued. Your Editor will re-institute the guest editorials in future issues.

Eighty-seven percent felt that the annual meeting session summaries were useful. There was no clear-cut preference relative to an appropriate "home" for the CE educators software exchange; 51% felt it should appear in the Division newsletter while 42% thought the Civil Engineering Education journal was more appropriate. The survey confirmed what Division officers have felt for many years, i.e., election ballots and surveys are returned mainly by those active in the Division. The Editor recommended to the Division Executive Board that efforts be made to find ways to involve, in Division activities, those who do not attend annual conferences. Ideas from readers would be appreciated.

Respondents also wanted to see a "letters to the editor" column. Of course this is something that depends mainly on the interest and effort of the readers rather than the Editor. I will publish all letters I receive. There are a number of critical issues currently affecting civil engineering education. Why not take the time to share your thoughts on these issues with your colleagues? One letter to the editor was published in the Fall issue. Certainly Boyd Riley's paper in this newsletter raises some interesting points for discussion. Why not take a few minutes to jot down your thoughts and forward them to the Editor. Thank you.

Ron W. Eck, Editor

Copyright 1986 by the Chronicle of Higher Education. Reprinted with permission.

ASEE BALLOT - CE DIVISION
Officers for 1987-88

(biographical sketches begin on page 3)

Place an X in the appropriate ()

CHAIR: Mardith B. Thomas ()

VICE CHAIR: Noel Tolbert ()

VOTE FOR ONE

DIRECTOR 1987-90: Prahlad Pant ()
Dean Parsons ()

RETURN BALLOT BY June 1, 1987, to:

Ron W. Eck
Department of Civil Engineering
West Virginia University
P.O. Box 6101
Morgantown, WV 26506-6101



ASEE-CE Div. NEWSLETTER
Civil Engineering Department
West Virginia University
P.O. Box 6101
Morgantown, WV 26506-6101

Non-Profit Organization U.S. Postage PAID Morgantown, WV Permit No. 34
--