

# MINUTES

## Meeting of the Committee on Emerging Computing Technologies

7 May 2000, 6:00pm - 8:00pm

2000 Structures Congress & Exposition

Wyndham Franklin Plaza Hotel, Philadelphia, Pennsylvania USA

Committee members in attendance were:

- Stuart Chen (SUNY at Buffalo);
- Paul de Paoli (Engineering Investigations & Testing);
- Eduardo de Santiago (Illinois Institute of Technology);
- Jim Garrett, Past-chair (Carnegie Mellon University);
- Ian Smith (Swiss Federal Inst. of Technology);
- Elisa Sotelino, Secretary (Purdue University);
- Božidar Stojadinovic (University of California, Berkeley);
- Colby Swan (University of Iowa).

Visitors in attendance were: *Jun Peng (Stanford University)*, .

Control group members not in attendance were:

- John Baugh, Chair (North Carolina State University);
- Meg Neggers, Vice-chair (J.D. Edwards Enterprise Software).

### 1. CALL TO ORDER

The meeting was called to order at 6:15pm by Elisa Sotelino who chaired the meeting. All members and guests in attendance were introduced.

### 2. MEETING AGENDA

Elisa Sotelino proposed an agenda for the meeting which was approved by all members in attendance.

### 3. MINUTES OF PRECEDING MEETING

Minutes from the preceding ECT Committee meeting (19 April 1999, New Orleans) were distributed and approved by those in attendance. There was no new business arising from these minutes.

## 4. CURRENT AND OLD BUSINESS

### 4.1 Report on the Analysis and Computation Committee Meeting

The Analysis and Computation (A&C) Committee is the parent committee to ECT. Ordinarily, the Chair of ECT presents a report on ECT activities during the preceding year at the A&C Committee meeting. This year, however, due to absences of both John Baugh and Meg Neggers, no such report was submitted or presented.

At their 7 May 2000 meeting, the A&C Committee requested that the ECT Committee assume responsibility for developing and maintaining web-sites for the A&C Committee and its sub-committees: (ECT, Emerging Computing Technologies; MOA, Methods of Analysis; OSD, Optimal Structural Design; SC, Structural Control). This request was discussed by those present at the ECT Committee meeting. The final consensus emerging from these discussion was that while ECT is open to advising other committees as they establish their own dynamic websites, individual committees should control and maintain their own web-sites. While maintaining web-sites for the other committees is not consistent with ECT's mission, a two-page document entitled "Web Pages for SEI Committee Activities: Policies and Procedures" authored by John Baugh was distributed and discussed by the committee. This document will be passed along to members of the A&C Committee.

**Special Note #1:** Following the ECT meeting, further communications between ECT vice-chair Elisa Sotelino and Jasbir Arora, chair of the A&C Committee, resulted in clarification on this issue. A&C is merely requesting that ECT continue to provide a contact person with whom webmasters from other A&C Committees can consult when establishing and maintaining their websites. Furthermore, SEI will provide a server for all of the technical committee websites, so this burden will not fall on ECT. John Baugh has been and will remain the contact person until his term expires 9/30/00. As John's successor, Elisa Sotelino will either become that contact person, or designate a new ECT contact person, effective 10/1/00.

### 4.2 Report on ECT Sponsored Sessions at 2000 Structures Congress

ECT Sponsored two technical sessions at the 2000 Structures Congress. These were:

1. *Emerging Computing Technology in Structural Engineering*, co-chaired by Jim Garrett, John Baugh and Božidar Stojadinovic; and
2. *High-Performance Computing*, chaired by Elisa Sotelino.

### 4.3 ECT Sponsored Sessions at the 2001 Structures Congress

ECT is will not be sponsoring any technical sessions at the 2001 Structures Congress in Washington, DC.

## 5. NEW BUSINESS

## 5.1 New and Continuing Members

The committee reviewed the resumé of Sukomal Modak who is applying for membership to the ECT Committee. The consensus was that Dr. Modak be approved as a new member of the ECT Committee, effective 10/1/2000.

The current membership of the committee is as follows:

- Nelson Baker (Georgia Institute of Technology);
- John Baugh, chair (North Carolina State University);
- Stuart Chen (SUNY Buffalo);
- Paul de Paoli (Engineering Investigations & Testing);
- James Garrett, Jr., past-chair (Carnegie Mellon University);
- Kincho Law (Stanford University);
- Meg Neggers, Vice-chair (J.D. Edwards Enterprise Software).
- Hughes Rivard (Concordia University);
- W.K. Roddis (University of Kansas);
- Ian F. Smith (Swiss Federal Institute of Technology);
- Elisa Sotelino, secretary (Purdue University);
- Božidar Stojadinovic (University of California, Berkeley);
- Colby Swan (University of Iowa);
- George Turkiyyah (University of Washington).

## 5.2 Officer Elections

John Baugh's term as chair of ECT expires 10/1/2000. While the current vice-chair of ECT, Meg Neggers is in line to succeed John, she has decided to withdraw from ECT for personal reasons.

Those present at the meeting unanimously approved the following as new officers of ECT, effective 10/1/2000:

- John Baugh, past-chair;
- Elisa Sotelino, chair;
- Colby Swan, vice-chair;
- Eduardo de Santiago, secretary.

In addition, Colby Swan agreed to serve as interim secretary for the current meeting (and through 9/30/2000 if necessary).

## 5.3 New Initiatives

### 5.3.1 Sessions for the 2002 Structures Congress

The following was discussed as a potential technical session theme for ECT sponsorship at the 2002 Structures Congress:

- A technical session to teach CAE techniques and ERP (Enterprise Resource Planning) to practicing structural engineers;

### 5.3.2 Joint Conference Sessions

Ian Smith proposed that member of ECT consider joining together with their European counterparts in IABSE (International Association of Bridge Engineers) to sponsor sessions and workshops pertaining to ECT.

### 5.3.3 Workshop on Computer Usage in CE

There was considerable discussion of a potential workshop sponsored by ECT to address university level educational aspects of computer usage and information technology for civil engineers.

A sub-committee of members interested in further developing this workshop was formed and includes: Stuart Chen, Paul de Paoli, Ian Smith, Elisa Sotelino, and Colby Swan. Other committee members are strongly encouraged to become involved and provide their input.

The preliminary vision for this workshop is to provide a forum for reasoned dialogue on what might constitute adequate levels of undergraduate civil engineering exposure to computer programming and information technologies. This is perceived to be a timely and important issue for a number of reasons: Engineering faculty are continuously being confronted with the question of objectives when teaching computer usage to undergraduate civil engineering students. For example, a recurring question is whether curriculum should be developed with the objective of teaching students to function primarily as **users** of engineering analysis/design software, or whether the curriculum should instead try to facilitate proficiency at **development** of engineering software and information technologies as well.

In laying a foundation for this dialogue, ECT will attempt to publish at least one article in *Civil Engineering* during the next year. The article will discuss the options being pursued by different universities with regard to teaching computer usage. For the workshop, the initial plan would be to identify and then bring together practicing engineers and engineering faculty who can be eloquent and thoughtful spokespersons for differing viewpoints on this subject.

Two potential results of this workshop could be:

- Recommendations to civil engineering academic programs regarding teaching computer usage and proficiency; and
- Recommendations to civil engineering employers regarding computer usage and/or IT in continuing education.

**Special Note #2:** Following the ECT meeting, Jasbir Arora, chair of the A&C Committee, encouraged ECT to develop this workshop at the 2001 Structures Congress since ECT is not sponsoring any technical sessions at the 2001 Congress.

## 6. ADJOURNMENT

The meeting was adjourned at 7:40pm, following which members regrouped for continued discussions and dinner on the town in Philadelphia.

Respectfully submitted,

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