

**ACI-ASCE Committee 447**  
**Finite Element Analysis of Reinforced Concrete Structures**  
Meeting at ACI Fall Convention 2012, Toronto, ON, Canada  
(ICE PALACE, Monday October 22, 11:00 am - 1:30 pm)

**1. Call to order: 11:00am**

**2. Introduction of Members and Guests**

**Members Attending:**

Al-Mahaidi, Riyadh	Swinburne University of Technology
Appa Rao G	Indian Institute of Technology, Madras
Coronado, Carlos	Bechtel Power Corporation
Bommer, Allan	Bentley Systems Inc
Cusatis, Gianluca	Northwestern University
Das, Mukti	Bechtel Power Corporation
Guner, Serhan	Morrison Hershfield Limited
Jakovich, John	DYK Incorporated
Lowes, Laura	University of Washington
Meyer, Christian	Columbia University
O'Leary, Michael	
Riveros, Guillermo	Engineering R&D Center, US Army
Thiagarajan, Ganesh	University of Missouri Kansas City
Song, Jan	Bechtel Corporation
Sritharan, Sri	Iowa State University
Zhao, Jian	University of Wisconsin, Milwaukee
Mo, Yi-Lung	University of Houston

**Associate Members Attending:**

Esplin, Robert	Engineering System Solutions
Edwardsen, Kelsey	Bechtel Corporation

**Guests Attending:**

Balomeno, Georgio	
Kateriva, Geuikowson	
Tholen, Mike	ACI Staff
Zeisler, Greg	ACI Staff
Taylor, Andy	ACI TAC contact
Wendner, Rowan	

**3. Excused/Informed Absences**

Walter Gerstle, Christopher Conley, Yong Lu, Zdenek P Bazant, Hazim Sarhan, Tom Panayotidi, Frank Vechhio

**4. Review of Minutes from ACI Spring Convention, Dallas TX, 2012**

The minutes were approved unanimously.

**5. Membership update:**

Full Members: 30 members

Associate Members: 38 members

Consulting Members: 14 members

## 6. Introduction of New Secretary

Jian Zhao of University of Wisconsin-Milwaukee was introduced as the new Secretary of ACI 447.

## 7. Report on possible technical sessions to be sponsored by the committee:

a) **Cusatis:** "Development of guidelines for the calibration and validation of concrete models,"  
Session in Collaboration with ACI-446 on Calibration of Concrete Models.

- A Task Group (TG) had been formed, and Carlos Coronado joined the TG.
- Two sessions are under development: one focusing on the strength and weakness of the models in commercial software and new development; and the other focusing on the procedures to calibrate the models.

b) **Ganesh:** Fall 2013 Session on 'Blast Blind Prediction Contest' – Winners to present their results and methodologies

c) **Ganesh:** Update on Blast Blind Prediction Contest (co sponsored by 370).

- The solicitation was responded well from all over the world and the deadline for registration is Nov 4<sup>th</sup>, 2012 and entries will be received up to January 15<sup>th</sup> 2013.
- Results will be announced in the Spring 2013 Convention in Minneapolis, MN.

d) Future sessions to be organized?

- A session was proposed by Dr. Zhao on the advancement in modeling bond. The session will be co-sponsored by ACI 408 committee and ACI 447 Committee.

## 8. Update on the State-of-the-Art Reports

a) **Ayoub:** Modeling of Modern Concrete Structures for Performance-Based Earthquake Engineering (447.XR)

- Dr. Lowes presented her work on Performance Based Design of walls.
- Dr. Lowes is working on Chapter 3: Frame model, and needs input from the committee.

b) **Al-Mahaidi:** Modeling for the Repair and Rehabilitation of Modern Concrete Structures for Performance Based Design (447.ZR)

- Dr. Al-Mahaidi reported the progress.

c) **Sritharan and Zhao:** Modeling Bond in Reinforced Concrete in collaboration with 408

- Working on the chapters for the interface models.

## 9. NESCC – Concrete Task Group (CTG) Report: Post-Processing Finite Element Analysis Results for the Design of Nuclear Concrete Structures (447.YT)

**Kelley Edwardsen** Updated on progress of Task Group work.

The Task Group will meet at 5:00pm on Monday.

## 10. Resolving the Tech Note Issue on Twisting Moments in Finite Element Based Design of Reinforced Concrete Slabs

**Allan Bommer** reported the status of the document. The revision could follow two paths.

- Ben Deaton from Georgia Tech. will shorten the document according to the TAC comments.
- Allan Bommer will revise the document into an acceptable design guideline.

## 11. New Business.

a) **Mike Tholen** (from EAC at ACI) provided a brief description of the ACI education committee activities. Committee members were encouraged to work with EAC.

b) **Mukti Das** presented his work on the finite element analysis of shells.

c) **Andy Taylor** was introduced as the new TAC representative for the committee.

## 12. Adjournment @ 1:22pm