



## **Design of Cast-In-Place and Post-Installed Concrete Anchors Subject to Seismic Forces** (In accordance with 2009 IBC / ACI 318-08)

Seminar Date: **Thursday, July 22, 2010**

Time: From 8:00 am to 4:00 pm (Registration from 7:30 am)

Location: Pagoda Hotel & Banquet (C'est Si Bon Ballroom Makai)

The Structural Engineers Association of Hawaii and the Cement and Concrete Products Industry of Hawaii are co-hosting this one day seminar presented by the distinguished, Dr. S.K. Ghosh, of S.K. Ghosh Associates Inc., and Bret Turley PE, Manager of Technical Services for Simpson Strong-Tie Anchor Systems.

### **Seminar Content:**

This seminar provides an overview of the anchor design provisions in Appendix D of ACI 318, presents design examples, and points out some of the difficulties facing designers, particularly when it comes to seismic design of anchors.

Cast-in-place anchors into concrete that are subject to seismic design forces could, before the adoption of the IBC, be designed by the allowable stress design method or the strength design method of the UBC and the other two legacy codes. They must now be designed in accordance with the strength design method in Appendix D of ACI 318.

The seminar illustrates different failure modes for a group of anchors subject to tension and different failure modes for a group of anchors subject to shear, and the calculation of the corresponding anchor strengths through a design example.

A demonstration of the Quick Anchor computer program, developed and marketed by S.K. Ghosh Associates Inc. by Dr. Prabuddha Dasgupta, developer of the program, will be shown via the internet. Take advantage of the special discount being offered...bring your laptop computer and follow the design example to get a first hand knowledge of using the program.

Post-installed mechanical anchors are now included in the scope of ACI 318 Appendix D, and post-installed adhesive anchors are addressed in ICC-ES acceptance criteria that reference ACI 355.2. The qualification of proprietary anchor types under ACI 355.2 is reviewed, and the use of data provided in ICC-ES Evaluation Service Reports in conjunction with the provisions of Appendix D is addressed. Design situations addressed include single anchors, anchor groups, anchors near edges, and special cases (sill plates).



Dr. S.K. Ghosh



**S.K. Ghosh**

Dr. S.K. Ghosh heads his own consulting practice, S.K. Ghosh Associates Inc., in Palatine, Illinois and Aliso Viejo, California. He was formerly Director, Engineering Services, Codes, and Standards, Portland Cement Association, Skokie, Illinois, and is Adjunct Professor of Civil Engineering at the University of Illinois at Chicago.

Dr. Ghosh is known internationally for his work in earthquake engineering. He has influenced seismic design provisions in the United States for many years by serving on or chairing numerous committees and advisory panels. He specializes in the analysis and design, including wind and earthquake resistant design, of reinforced and prestressed concrete structures. Dr. Ghosh is active on many national technical committees and is a fellow of ACI and PCI. He is a member of ACI Committee 318, Standard Building Code, the Masonry Standards Joint Committee, and the ASCE 7 Standard Committee (Minimum Design Loads for Buildings and Other Structures).

**J. Bret Turley**

Bret Turley, PE, is the Manager of Technical Services for Simpson Strong-Tie Anchor Systems. He has been active in the anchoring and fastening industry for the past 22 years. He currently serves as the Secretary of the ACI 355 Committee on Anchorage to Concrete and is also a member of the ACI 349-C Committee on Nuclear Structures – Anchorage and ACI 408 Committee on Development & Splicing of Deformed Bars.

\*\*\*\*\*REGISTRATION\*\*\*\*\*

Registration Fees: (Includes seminar handout & lunch)..... Qty. \_\_\_ @ \$ \_\_\_\_\_

|                                              |           |                  |
|----------------------------------------------|-----------|------------------|
| Registration Fee (non-members) .....         | \$        | 95/person        |
| <b>SEAOH/CCPI Members; Gov't agencies...</b> | <b>\$</b> | <b>80/person</b> |
| UH CEE Students.....                         | \$        | 25/person        |

**TOTAL = \$ \_\_\_\_\_**

*Special Quick Anchor Software Program on sale now! (see next page for purchase info)*  
Use order form or email to [kbhaumik@skghoshassociates.com](mailto:kbhaumik@skghoshassociates.com)

Name(s): \_\_\_\_\_ Company: \_\_\_\_\_

\_\_\_\_\_ Email: \_\_\_\_\_

Please remit registration and check payment (prior to July 15, 2010) to:  
**CCPI 2153 N. King St. #327 Honolulu, HI 96819.**  
Phone: 848-7100 Fax: 848-2626

**MAHALO!**