

# **"Construction, Geotechnical and Flooding Issues Related to Houston & Other Major Cities"**

## **CIGMAT-2007 (12th Annual Conference)**

March 2, 2007 at the University Hilton, University of Houston  
8:00 a.m. to 3:30 p.m.

### **About the Conference**

A one day Conference and Exhibition was organized by the Center for Innovative Grouting Materials and Technology (CIGMAT) and the Department of Civil and Environmental Engineering on "Construction, Geotechnical and Flooding Issues in Houston & Other Major Cities" at the University of Houston on March 2, 2007. The conference held at the University Hilton, University of Houston, Houston, Texas. The general session focused on issues related to funding for the City of Houston, transportation projects, and regional water authority. The technical sessions discussed the asset management needs of major water and wastewater systems, hurricane issues, geotechnical issues related to earthen structures (embankments, levees) and expansive soils, stormwater management and flood control issues in urban environment and the Second Mike O'Neill Lecture.

The slate of speakers included personnel from the State of Texas, City of Houston, other cities, Harris County and other counties, Universities and related industries. The presentations included current projects and proposed projects for years 2007-2008 in the Greater Houston area and other major cities. Among the speakers in the morning session was the Director of Public Works-City of Houston, Director of Transportation Planning-TxDOT and Vice President for Planning, Engineering and Construction-METRO. They discussed the major projects and plans in the Greater Houston area. The first panel discussion was on the "Asset Management of Water and Wastewater Systems in Major Cities. One session was on Hurricane Issues and Preparedness and Geotechnical Issues with focus on Embankment stability and Expansive Clays. Professor Dan Brown (Auburn University, Auburn, Alabama) delivered the Second Mike O'Neill Lecture on "Advances and Challenges in Drilled Shafts". A session was planned on Stormwater Management and Flooding issues related to Houston area and the featured was the Mike Talbott, Director of Harris County Flood Control District. The technical sessions included presentations followed by panel discussions on relevant topics. A reception held starting at 2:30 p.m. with invited city, county and industry leaders in the exhibit area to facilitate networking.

For information on future conferences contact Dr. C. Vipulanandan (Vipu), CIGMAT/Department of Civil & Environmental Engineering, University of Houston, Houston, Texas 77204-4003. Phone: (713) 743-4278. Information on registration and exhibit space is also available on the website <http://cigmat.cive.uh.edu>.

## Final Program

### 8:30 a.m. Welcome Remarks

**C. Vipulanandan (Vipu)**, Chairman, Department of Civil and Environmental Engineering & Director of CIGMAT, University of Houston  
**Donald Birx**, Vice President for Research, University of Houston

### Session I: (8:40 a.m. to 9:50 a.m.) General Session

**Moderator: C. Vipulanandan, Ph.D., P.E.**, Professor of Civil Engineering, University of Houston, Houston, Texas

**Michael S. Marcotte, P.E.**, "Review of City of Houston Projects and Plans and Technical Needs," Director, Public Works and Engineering Department, City of Houston, Houston, Texas, Keynote Speaker;  
**Gabriel Johnson, P.E.** "TxDOT Projects and Plans," Director for Transportation, Planning and Development, TxDOT, Houston, Texas, Keynote Speaker;  
**John Sedlak, P.E.** "Facility Providers in the METRO Solutions," Vice President Planning, Engineering and Construction, METRO Houston, TX, Keynote Speaker.

### 9:50 – 10:15 a.m. Coffee Break (Exhibit Area)

### Session II: (10:15 a.m. to 12:00 noon)

#### Panel 1: Management of Major Water and Wastewater Systems

**Moderator: C. Vipulanandan**, University of Houston, Houston, Texas.

Panelist (25 min. presentations)

**Daniel Krueger, P.E.** "Development and Implementation of CIPMS for City of Houston," Deputy Director, Public Works and Engineering Department, City of Houston, Houston, Texas.

**Gary Oradat, P.E.** "Luce Bayou Interbasin Transfer Project," Chief Engineer, Coastal Water Authority, Houston, Texas.

**Case Studies on Pipeline Performances, Rick Turkopp**, Technical Manager, Hobas Pipe USA Inc., Houston, Texas.

#### **Panel Discussion: Challenges in Maintaining Large Public Works Infrastructures**

## **Panel 2: Hurricane and Geotechnical Issues**

**Moderator: Stanley Yin, P.E., TxDOT, Houston, Texas.**

Panelist

**Lessons Learned from Hurricanes in Florida and Related Issues, Professor Arindam Chowdhury, International Hurricane Research Center and Laboratory for Coastal Research, Florida International University, Miami, Florida. (45 min)**

**Slope Stability of Embankment in Harris County-Texas, Ron Langston, P.E. Geotechnical Program Manager, Harris County Flood Control District, Houston, Texas (25 min)**

**Cyclic Foundation Movement and Their Remediation, Marshall Addison, Ph.D., P.E., Geotechnical Consultant, Dallas, Texas. (25 min)**

**Panel Discussion: Challenges in Maintaining Civil Infrastructures**

## **Lunch Break, Exhibition & Research Posters**

**Posters** on research at University of Houston. **Companies** participate in the **Exhibition**. Vote for the Posters.

**Session III: (1:00 p.m. to 2:30 p.m.)**

### **Panel 3 : Flooding and Stormwater Issues**

**Moderator: David Peters, P.E., Principal Engineer, Civil Tech Engineering Inc, Houston, Texas.**

Panelist (20-25 min. presentations)

**Mike Talbott, P.E., “Flood Control District Projects and Plans,” Director, Harris County Flood Control District, Houston, Texas.**

**Tom Beck, P.E. “Stormwater Issues Related to TxDOT Projects and Plans,” Project Manager, Houston District Hydraulics, TxDOT, Houston, Texas**

**Andy Icken, P.E. “City of Houston Flood Control Program,” Deputy Director, Public Works and Engineering Department, City of Houston, Houston, Texas**

**Panel Discussion: Flooding Related Challenges (Funding, Regulations, Project) in the Houston Area**

**Panel 4: Geotechnical Issues: Deep Foundations**

**Moderator: C. Vipulanandan, P.E., University of Houston, Houston, Texas.**

**Second Mike O’Neill Lecture**

**Special Consideration for Construction of Large Drilled Shaft Foundation,  
Professor Dan Brown, Auburn University, Auburn, Alabama.**

**Recent Advances in Designing, Monitoring, Modeling and Testing Deep  
Foundations in North America, Professor C. Vipulanandan, University of Houston,  
Houston, Texas**

**Panel Discussion: Challenges in Deep Foundations**

**RECEPTION: (2:30 - 3:30 p.m.)**

Reception held in the Exhibit area (food and drinks). In addition to conference participants, number of city, county and industrial leaders invited to participate. This was a good opportunity to network and number of door prizes was waiting for you.

**Professional Development Hours (PDH)**

Earn up to 5 hours of PDH by attending the conference. Certificates issued after the conference.