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## Engineering Seminar:

### *“Nakheel Tower”*

*Ahmad Rahimian, Ph.D., PE, SE, F.ASCE*  
*Chief Executive, WSP Cantor Seinuk*

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#### **Abstract**

The design of the Nakheel Harbor & Tower in Dubai, UAE exemplifies the possibilities in building for future urban landscapes. The project in all encompasses more than 270 hectares and includes the Nakheel Tower that reaches over 1 kilometer in height. Nakheel Tower is a model vertical city, accommodating residents in an efficient LEED rated, and sustainable building. It is a truly mixed-use development combining offices, luxury residential and serviced luxury apartments, loft style apartments, super star sky hotel, experience center and observation facilities along with special sky function space – creating a vertical community of over 15,000 people.

The tower’s structure and architectural form is the result of a convergence of influences which include the Arabic culture, desert environment, wind, light, redundancy, and not least of all gravity. The design provides for an extremely efficient, yet simple structure. It utilizes a mix of construction materials and conventional building techniques applied in unique ways to create the possibility of such a dramatic structure.

The lessons learned from the Nakheel Tower hold implications for future super-tall buildings of this magnitude. Though the difficulties associated with such a large project are many, none are insurmountable. This provides optimism for the future of tall building design and demonstrates the possibilities in building towers that reach higher than ever before.

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**DATE:** Friday, March 25, 2011

**TIME:** 1:30 P.M.

**LOCATION:** 140 KETTER HALL, NORTH CAMPUS, UNIVERSITY AT BUFFALO

**ORGANIZED AND SPONSORED BY:** *Student Chapter of EERI at UB, CSEE-GSA, MCEER and Dept. of CSEE*

***Snacks and Refreshments will be served !!!***



***Ahmad Rahimian, Ph.D., P.E., S.E. F. ASCE***  
***Chief Executive, WSP Cantor Seinuk***

Dr. Ahmad Rahimian, PE, SE is Chief Executive of WSP Cantor Seinuk, a leading structural engineering firm based in New York with international operation with offices in Los Angeles, London, Dubai, and India. The firm is part of WSP Group, a multi-disciplinary engineering company of over 9,000 staff world-wide.

Dr. Rahimian, an internationally recognized expert in tall buildings, is the recipient of numerous awards from engineering societies for various exemplary projects that he has engineered including 2007 AISC Special Achievement Award, 2005 ASCE-CERF Charles Pankow Award for innovation and the ENR Excellence Award as one of the Top 25 Newsmakers of 2003. Dr Rahimian holds a US patent for seismic protective design.

Dr. Rahimian's thirty years experience with the firm includes engineering of numerous of projects worldwide ranging from high-rise commercial and residential tower, stadiums, and transportation facilities. He directed the structural engineering of the Trump World Tower, one of the tallest residential buildings in the world, and the Torre Mayor in Mexico City, the tallest building in Latin America, and Arthur Ashe Stadium (US-OPEN), Flushing Meadows NY, the Hearst Tower in New York City. He has recently been involved in the design of the Nakheel Tower in Dubai with the height of more than 1 km, and One World Trade Center (Freedom Tower) in New York City.