



DFI EDUCATIONAL TRUST

For Immediate Release 2008 Paper Competition Winners Announced

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August 18, 2008, Hawthorne, NJ. The DFI Educational Trust announces the winners of its 2008 Paper Competitions. Each year papers are solicited from students and entry-level faculty members on topics relating to deep foundations design and construction.



Thomas L. Vande Voort,
Student Competition Winner

The winner of the 2008 Student Paper Competition is Thomas L. Vande Voort, a graduate assistant at Iowa State University, Ames, Iowa, U.S. Mr. Vande Voort will present his winning paper, "*Design, Construction, and Testing of a Precast UHPC Pile,*" during DFI's 33rd Annual & 11th International Conference on Deep Foundations on October 15-17 in New York, NY. Thomas received his B.S. in civil engineering in 2006 and just graduated with his M.S. in civil engineering, specialization in structural engineering this August, both from Iowa State University. He is an American Concrete Institute Fellowship finalist and scholarship recipient and also received the 2008 Nevada Medal for Distinguished Graduate Student Paper in Bridge Engineering. His winning paper discusses Ultra High Performance Concrete (UHPC) with compressive strength of 26,000 psi (180 MPa) and durability which has been used in superstructural applications and how it can be applied in geotechnical and substructural applications, specifically it explores the possibility of using precast, prestressed UHPC piles for extending the life of bridge structures.

The winning paper for the 2008 Young Professor Paper Competition, also to be presented at the DFI conference this October, was submitted by Lance A. Roberts, Ph.D., P.E., an Assistant Professor in the Civil and Environmental Engineering Department at the South Dakota School of Mines and Technology (SDSM&T). The paper, titled, "*LRFD for Deep Foundations: Replacing the Traditional Factor of Safety in Design*", examines the various methods used to calibrate resistance factors for use in the design of deep foundations and compares the methods currently utilized to calibrate the resistance factors reported in the AASHTO LRFD specifications to a "t-z" model design methodology. Dr. Roberts earned BS and MS degrees in Civil Engineering from SDSM&T in 1998 and 1999, respectively. While with consulting firms from 1999-2007, he gained significant experience in structural and geotechnical design and earned his Ph.D. from the University of Missouri – Kansas City while employed as a project engineer with TranSystems Corporation and Terracon. He is currently serves as a member of DFI's Drilled Shaft Committee, ASCE Geo-Institute's Risk Assessment and Management (RAM) Committee, and the Committee on Foundations of Bridges and Other Structures (AFS30) within the Transportation Research Board (TRB), as well as being an Editorial Board Member for the *GeoRisk* journal.



Lance A. Roberts
Young Professor
Competition Winner

Also being recognized are runners-up in both competitions. Susheel R. Kolwalkar of Cleveland State University for his submission to the student paper competition titled, "*Application of Electro-kinetics to expedite Pile Setup in Kalonite Clay*" and Lianyang Zhang, Ph.D., P.E., Assistant Professor of Civil Engineering and Engineering Mechanics at The University of Arizona for his paper titled, "*Predicting the End Bearing Capacity of Rock Socketed Shafts*" submitted to the Young Professor Competition.

All four papers are being published in DFI's Proceedings of the 33rd Annual & 11th International Conference on Deep Foundations. The winners and runners-up receive complimentary conference registrations, a library of 20 DFI publications, and two-year complimentary DFI memberships. Winners of each competition additionally receive a \$750 award and lodging during the conference.

To learn more about the upcoming conference, about DFI and the DFI Educational Trust activities, or to obtain a copy of the proceedings, please visit www.dfi.org or call 973-423-4030.