

Review: NAGS Seminar on Geosynthetic Advancements in Soil Reinforcement Applications

By David Suits

The North American Geosynthetics Society (NAGS), a chapter of the International Geosynthetics Society (IGS), co-sponsored a seminar on “Geosynthetic Advancements in Soil Reinforcement Applications” on 25 March 2008 at Syracuse University. In addition to NAGS, the Civil Engineering Department at Syracuse University and the Syracuse Area Chapter of the American Society of Civil Engineers (ASCE) co-sponsored the event.

Dr. Shobha Bhatia, Syracuse University, Matthew Marko, President-elect of the Syracuse Area ASCE, and David Suits, NAGS acted as hosts for the seminar.

Dr. Barry Christopher spoke on the following areas of geosynthetic reinforcement:

- Reinforced Soil Slopes
- Reinforced Soil Walls
- Reinforced Embankments
- Smart Geosynthetics

Talking Points

During the two hour seminar, Dr. Christopher emphasized the advancements and innovations in each of the subject areas. These included the broader acceptance of the technology by bridge and structural engineering units within state and federal transportation agencies; standard designs and details being made available now; the Load Resistance Factor Design (LRFD) approach; the use of lightweight fills; and reliability-based design approaches for steepened slopes.

The HITECH Evaluation Program and stress-relief retaining structures were added innovations in addition to those mentioned for steepened slopes. For embankments, the innovations included the combining of technologies and materials such as lightweight fills, vertical drains, hydraulic fills and refined analysis methods. In the area of smart geosynthetics, the inclusion of fiber optics and other sensing methods were described along with the advantages of using geosynthetics as an instrumentation delivery system (e.g., minimal disruption of construction).

Dr. Christopher described some of the “smart sensing” techniques used in the construction of the Woodrow Wilson Bridge replacement in Washington, DC.

NAGS Seminars Available to You

This and other such seminars are available for presentation through NAGS to your organization or group. If interested, please contact David Suits, Executive Director at nagsdirector@aol.com for further information.



Matthew Marko, ASCE Syracuse Chapter President-elect, welcoming seminar participants



Dr. Shobha Bhatia, Syracuse University, introducing Dr. Christopher



Dr Barry Christopher introducing his lecture



Some of the Attendees Waiting for the Lecture



Enjoying Some Pizza and Chicken Wings After the Lecture

Pictures taken by David Suits