

You are invited to attend a presentation being made during the Civil Engineering Graduate Seminar class (CE 890) as follows:

- DATE:** November 12, 2008
- TIME:** 4:00 p.m. (refreshments served at 3:45 p.m.)
- PLACE:** Rathbone 1052
- SPEAKER:** Prof. Tomasz Arciszewski, Civil, Environmental & Infrastructure Engg. Dept., George Mason University; Chair, Executive Committee – ASCE Global Center of Excellence in Computing, Fairfax, VA
- TOPIC:** “Bio-Inspiration in Design”

ABSTRACT

The talk explores the state of the art in engineering design inspired by nature with examples mostly from the domain of structural engineering. Three categories of inspiration will be discussed, including visual, conceptual, and computational inspiration. The focus will be on the computational inspiration, including evolutionary and co-evolutionary computation, and cellular automata. Also, the process of morphogenesis in nature will be explained in the context of generative representations, which have great potential for generation of novel designs. Finally, the most promising directions for future research will be briefly presented.