Dear Colleague,

It is our great pleasure to inform you on that The Second International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering will be held in Chania, Crete, Greece on 6-9 September 2011. The CSC2011 meeting is a prestigious conference held every two years. The conference is included in the Civil-Comp Conference Series. A more detailed description of the CSC2011 conference can be found at the conference website http://www.civil-comp.com/conf/csc11.htm.

In particular, we would like to bring your attention on the Special Session CSC11-S04, entitled "Metaheuristic optimization of skeletal structures". The session is motivated by the fact that design optimization of skeletal structures is an important field of structural engineering that although represents a "classical" subject is under continuous development. The rather "simple" structural analysis of skeletal structures allows to "complicate" the formulation of the optimization problem by including hundreds/thousands of design variables and optimization constraints as well as integer and mixed-integer design variables. For this reason, skeletal structures are usually taken as benchmark for evaluating performance of new optimization algorithms.

The tremendous improvements in computational resources allowed to deal with increasingly complex truss and frame structures comprised of several hundreds or thousands of elements and subject to multiple loading conditions. However, the increasing level of structural complexity also brings the problem of the existence of multiple local minima and the need for disposing of design procedures able to find the global optimum. For this reason, a wide variety of Metaheuristic Optimization (MO) algorithms have been developed. The basic principle of MO is to search for the global optimum by mimicking natural, physical or social phenomena. The search process has a random nature which is however regulated by a principle inspired to the phenomenon to be reproduced. Consequently, design variables are perturbed according to the principle to which the optimization algorithm is inspired. Besides the "first generation" metaheuristic methods such as Genetic Algorithms, Simulated Annealing and Neural Networks, many new metaheuristic optimization algorithms such as Ant Colony, Harmony Search, Big Bang Big Crunch, Hunting Search, Firefly, etc have been recently developed in the last 10 years.

The purpose of the Special Session CSC11-S04 "Metaheuristic optimization of skeletal structures" is to discuss the state-of-the-art of the application of metaheuristic optimization algorithms to the design of skeletal structures. It would be our great pleasure to have you attending the session and presenting a paper on this subject. Potential contributors should propose novel applications of metaheuristic optimization algorithms to the design of skeletal structures: in particular, papers should focus on improved algorithm formulations or design of large-scale structures.
At this stage, we kindly ask you to submit an abstract of 200 to 1000 words. Abstracts can be submitted directly to the session organizers, Dr. Oguzhan Hasancebi, Middle East Technical University, Turkey (oguzhan@metu.edu.tr) and Dr. Luciano Lamberti, Politecnico di Bari, Italy (lamberti@poliba.it). Alternatively, abstract can be submitted to the Conference Editor using the abstract submission portal. If you use the portal, please do not forget to mention that your abstract is part of special session CSC11-S04.

The CSC11 conference has a strict "no-abstract, no-paper, no-podium" rule. This means that to make a presentation you must submit your paper by the due date in the specified format. Papers may be submitted only when the abstract of the paper has been accepted. If you wish to present a paper at the conference you MUST submit an abstract of your paper by the specified date.

A selection of extended reviewed versions of the best papers will be published in special issues of Computers & Structures and Advances in Engineering Software. The procedure for submitting papers for these journal special issues will be available at the conference. (Only papers presented at the conference are eligible for special issue publication.)

The Important Dates of the conference are reported below.

Abstract submission 10 January 2011
Full paper deadline as advised by the editor in your abstract acceptance email
Last day for author registrations 15 June 2011
Programme is released 15 August 2011
The conference 6-9 September 2011

We really hope that you will find it interesting to contribute to our session and we look forward to seeing you in Crete.

With Our Best Regards

Dr. Oguzhan HASANCEBI  
Dept. Civil Engineering  
Middle East Technical University  
06531 - Ankara  
Turkey  
E-mail: oguzhan@metu.edu.tr

Dr. Luciano LAMBERTI  
Dipartimento Ingegneria Meccanica e Gestionale  
Politecnico di Bari  
70126 - Bari  
Italy  
E-mail: lamberti@poliba.it