

Preface

Load-carrying engineering structures play an important role in modern industry. Buildings, bridges, vehicles, cranes, ships, offshore structures, storage tanks, pipelines, sport stadiums need competitive structural versions.

The main requirements for these structures are safety, manufacturability and economy. Safety against different loads such as permanent and variable actions, earthquake, fire is guaranteed by design constraints on stresses, deformations, stability, fatigue, while manufacturability is considered by fabrication constraints. Economy is achieved by minimization of a cost function.

All these aspects are the bases of a structural optimization system, which minimizes the cost function using effective mathematic methods taking into account the design and fabrication constraints.

This is our fifth international conference of structural design and the third conference on the field of design, fabrication and economy (DFE), which shows that DFE covers all the main problems of engineering structures and can be an effective means to show the international developments in this field.

It is a great pleasure to organize this international conference, to give participants opportunity to show and discuss the new research results in a friendly atmosphere.

The organizers wish all participants successful days to collect new ideas and get new acquaintances.

Károly Jármay, Editor-in-Chief
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University of Miskolc, April, 2013

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