

Preface

This volume of proceedings includes the selected papers presented at the **10th International Conference Structural Integrity of Welded Structures (ISCS13)**, held in Timisoara, Romania, during July 11-12, 2013. The conference takes place every two years and is traditionally organized by the National R&D Institute of Welding and Material Testing, ISIM Timisoara in cooperation with the “Politehnica” University of Timisoara and the Timisoara Branch of the Romanian Academy of Technical Sciences.

The aim of the conference was to bring together researchers from institutes and universities from different countries in order to discuss actual topics of structural integrity of welded structures from the welders’ point of view as well as that of the material testing specialists. A particular attention was concentrated on practical problems coming from the industry.

The volume includes 33 papers selected from the 55 papers that were submitted. The authors highlighted the results of their own research and development activity carried out in the frame of their institutes and universities from Romania, Germany, Hungary, Kazakhstan and Serbia.

The main topics of the conference were:

- Prospects in materials science, nano-mechanics, nano-materials, nano-technologies, computer simulation paradigms
- Advanced materials and joints, their mechanical and structural characterization
- Quantitative non-destructive testing
- Fracture mechanics of metallic and non-metallic materials
- Materials damage under time-dependent actions, fatigue, creep, corrosion
- Remaining life assessment of industrial equipments
- Quality management of materials and welded joints
- Damage of metallic and non-metallic structure

We would like to thank all the authors who have contributed to this volume and also to the Organizing Committee, reviewers, speakers, chairpersons, sponsors and all the conference participants for their support for a successful scientific meeting.

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