

Preface

This volume of proceedings includes the selected papers presented at the **11th International Conference Structural Integrity of Welded Structures** (ISCS15). The conference takes place every two years and is traditionally organized by the National R&D Institute for Welding and Material Testing, ISIM Timisoara. This year the conference has a much wider scale, since it is organized as a joint event in the frame of the **3rd IIW South – East European Welding Congress**, held in Timisoara, Romania, during June 3 - 5, 2015.

The event brought together researchers from institutes and universities from different countries in order to discuss actual topics of structural integrity of welded and jointed structures from the practical point of view as well as that of the material testing specialists. A particular attention was given to practical problems coming from the industry.

The volume includes 46 selected papers from the 54 full 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, Serbia, Bulgaria, Czech Republic and Israel.

The main topics of the conference were:

- Welded structure stability
- Advanced methods and new trends in NDT
- Prospects in materials science, nanomechanics, nanomaterials, nanotechnology, computer simulation paradigms
- Advanced materials and joints, 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, irradiation
- Remaining life assessment of industrial equipment
- Quality management of materials and welded joints
- Damage of metal and non-metal structures

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