

International Conference on Structural Integrity (ICSI2025)

Thematic symposium

Structural integrity of 3D printed metal components

3D printing technology has brought unprecedented shape freedom to components. In the field of metals, additive manufacturing technology stimulates the development of new materials with specially desired properties. The implementation of additively printed metal parts into the operation of structures and machines also brings new challenges in terms of their structural integrity. For example, internal defects, residual stresses, surface quality and the consequences of surface finishing, including the application of laser technologies, etc.

We look forward to an interesting mutual discussion on:

- the integrity of printed metal components in real operation;
- experience in verifying and improving their properties;
- the influence of additive manufacturing parameters on the mechanical properties of these materials;
- new diagnostic procedures for detecting their condition and microstructure;
- trends in increasing the cyclic and other mechanical properties of additively manufactured metallic materials and components.

If you are interested in participating in this thematic symposium, please contact either Mr. Vladimir Chmelko (vladimir.chmelko@stuba.sk) or Mr. Miloslav Kepka (kepkam@rti.zcu.cz).