

6th International Conference of Engineering Against Failure



Session description

Chairperson name: Prof. Katarina Monkova

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Title of the session: Additive manufacturing

Objectives: Interest in additive techniques has grown swiftly as applications have progressed from rapid prototyping to the production of end-use products. Additive components can now use metals, polymers, composites, or other powders to "print" a range of functional components, layer by layer, including complex structures/cellular materials that cannot be manufactured by other means. Authors are invited to present their research concerning topics related to the fracture and failure of 3D printed materials and structures. The objectives of the session are focused, but not limited on

- failure and fracture causes of additively produced components,
- influence of manufacturing/technological conditions on the fractures and failures of 3D printed parts,
- failure/fracture modes and criterion,
- failure prediction and prevention,
- application of AM parts in real practice,
- analyses and simulations,
- testing and defects' detecting,
- the behaviour of cellular materials and structures (their properties, manufacturing, testing, etc.).

The best papers aimed at cellular materials and porous structures will be invited to publish the results of their research in the Special Issue of the Materials journal

https://www.mdpi.com/journal/materials/special_issues/advances_cellular_material