Institute of Thermomechanics Seminar
http://www.it.cas.cz/en/it_seminar
Lecture No .97

Institute of Thermomechanics, Czech Academy of Sciences

invites you to a lecture within the lecture series **Institute of Thermomechanics Seminar**

Laser shock peening, principal, use and related phenomena

given by

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The laser shock peening (LSP) process using a Q-switched pulsed laser beam for surface modification. The development of the LSP technique and its numerous advantages over the conventional shot peening (SP) such as better surface finish, higher depths of residual stress and uniform distribution of intensity. The generation of shock waves, processing parameters, and characterization of LSP treated specimen is great topic for deeper understanding. Special attention will be given to the influence of LSP process parameters on residual stress profiles, material properties and structures. Based on the studies so far, more fundamental understanding is still needed when selecting optimized LSP processing parameters and substrate conditions. Furthermore, enhancements in the surface micro and nanohardness, elastic modulus, tensile yield strength and refinement of microstructure which translates to increased fatigue life, fretting fatigue life, stress corrosion cracking (SCC) and corrosion resistance will be discused with audience..

The lecture will be held on Monday, March 8th, 2021, at 13:30
via Zoom, using the following link:

https://zoom.us/j/94667992761?pwd=SHRyZnQ2a2hlUTlycmJndjZVd3QvZz09

Meeting ID: 946 6799 2761
Passcode: 973504

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