

— Call for Papers —

A Symposium on

Surface and Sub-Surface Functionalization

Sponsored by the ASME Manufacturing Engineering Division's
Manufacturing Processes Technical Committee
2017 ASME International Manufacturing Science and Engineering Conference (MSEC)*
June 4-8, 2017
University of Southern California

Technical Focus

Manufacturing is a material conversion process to turn raw materials into products. Manufacturing includes various processes such as casting, forging, forming, machining, heat treatment, and surface finishing. These processes are designed to meet the products' specifications (e.g., geometrical, material, mechanical, and optical properties). Geometrical properties include macro- and macro-scale geometries (e.g., form, waviness, roughness, and texture). Material and mechanical properties include corrosion resistance, hardness, strength, toughness, etc. Optical properties include light reflection, absorption, diffraction, scattering, etc. These specifications are often influenced by the surface and sub-surface conditions of the components. This symposium will focus on research in the areas of surface functions imparted during manufacturing processes. Surface and sub-surface analytical methods are also within the scope of this symposium. Specific topics of interest include, but are not limited to

- Manufacturing methods (forging, forming, machining, polishing, blasting, burnishing, laser/electron beam machining, additive manufacturing, coating, etc.) for improving surface functions
- Surface texturing/structuring (patterning, dimpling, etc.)
- Modeling of manufacturing processes to alter surface functions of processed surfaces
- Modeling of surface functions produced in manufacturing processes
- Methods to evaluate surface functions

Paper Submission

Authors are encouraged to submit an abstract and full manuscript for review by **November 03, 2016** via the conference website. Final revised manuscripts must be submitted by **March 08, 2017**. The copyright transfer form must be filled out and the presenting author must pre-register by April 06, 2017, or the paper will be withdrawn from the conference. Authors may also consult www.asme.org/divisions/med/call/ for updates. **No papers are to be submitted to the organizers; submissions will only be accepted via the conference website at www.asmeconferences.org/msec2017/.**

Additional Symposium Activities

To highlight advancements in this technical area, symposium organizers will

- work to attract a high-profile international keynote speaker (including the payment of an honorarium)
- organize a special issue in the ASME Journal of Manufacturing Science and Engineering or ASME Journal of Micro and Nano-Manufacturing
- organize a paper on the state of the art that will be the lead article in the special issue

Organizers:

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* The conference is co-located with NAMRI/SME's 45th North American Manufacturing Research Conference (NAMRC45) and JSME's International Conference on Materials and Processing (ICMP 2017), both of which have a separate call for papers. Please note that submissions of the same paper to more than one conference are not permitted.