

— **Call for Papers** —
A Symposium on
**Advances in Materials and Manufacturing Processes for Energy
Technologies**

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

To reduce carbon footprint, there is a push for development of clean energy technologies. It includes not only development of reliable, sustainable, and affordable renewable energy resources but also making conventional energy resources (coal, oil, and gas) much efficient and cleaner. Although the problem is substantial, the solution lies at multiple fronts including advances and innovation in materials and manufacturing processes as key drivers. The proposed symposium will present studies on fundamentals, overview on current issues and challenges, and advances of materials and manufacturing processes concerning the field of existing and future energy technologies. It is expected that such materials and processes will have potential to make industrial impact in terms of developing safe energy technologies with improved performance and high reliability. Papers will be sought on all aspects of energy technologies dealing with materials and manufacturing processes – from energy generation, transmission, to storage and conversion. Specific topics of interest include, but are not limited to:

- Effect of temperature, load, and environment on mechanical properties (such as creep, stress corrosion cracking, and irradiation embrittlement) of structural materials for nuclear energy
- Novel materials for solar, wind, and battery technologies and related manufacturing processes
- Advanced structural materials and related manufacturing processes for oil and gas industry
- Advances in application of additive manufacturing for battery technologies
- Material and processes covering sensing, control, and optimized performance for energy technologies.

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transfer form must be filled out and the presenting author must pre-register by April 06, 2017 or the paper will be withdrawn from the conference.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:

- organize a special issue in the ASME J. of Manufacturing Science and Engineering or ASME J. of Micro and Nano-Manufacturing
- organize a state-of-the-art paper that will be the lead article in the special issue

Organizers:

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* The conference is collocated 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.