

— **Call for Papers** —
A Symposium on
Design, Process, and Systems Advances for Remanufacturing and Recovery

Sponsored by the ASME Manufacturing Engineering Division's
Life Cycle Engineering Technical Committee
2019 ASME International Manufacturing Science and Engineering Conference (MSEC)*
June 10-14, 2019
Erie, Pennsylvania
Hosted by Pennsylvania State University, The Behrend College

Technical Focus

The circular economy has been introduced as a concept to improve economic, environment, and social considerations, however, it requires significant advancements in life cycle engineering concepts. Remanufacturing and recovery activities can reduce the cost of products with original equipment manufacturers standards, reduce the amount of waste directed to undesirable end-of-life or end-of-use treatments, and can provide a secondary source for critical material. Currently, research has targeted multiple facets of remanufacturing and recovery; such as design, process optimization, and systems modeling. However, significant challenges exist regarding the multi-scale systems structure of the circular economy, the dependence on product design and material in selecting remanufacturing and recovery processes, and in process planning to achieve desired production/recovery yields. This symposium will focus on research advances in product design, processes, simulation, and automation for remanufacturing and value recovery, and application of such advances to contribute towards a circular economy. Such research will have industrial impact by providing a better understanding of product design for life cycle, process planning and systems for remanufacturing and recovery, and systems modeling to simulate and predict flow of products and materials for recovery. Specific topics of interest include but are not limited to:

- Sustainable design for remanufacturing, disassembly, etc.
- Advances in remanufacturing processes capability
- Inspection of remanufacturing and recovered parts for use in second-life
- Models and tools for simulation of value recovery logistics and systems
- Product service systems – design and system modeling
- Simulation and life cycle assessment tool for predicting environmental impacts and recovery planning
- Critical material recovery and processing
- Life-cycle digital thread methods for decision making at end-of-use
- Automation of disassembly, cleaning, inspection, and remanufacturing processes

Paper Submission

Authors are encouraged to submit an abstract and full manuscript for review by **November 02, 2018** via the conference website. Final revised manuscripts must be submitted by **March 15, 2019**. The copyright transfer form must be filled out by March 8, 2018, and the presenting author must pre-register by **April 05, 2019**; 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/msec2019/.**

Additional Symposium Activities

To highlight advancements in this technical area, symposium organizers will:

- work to attract industry speakers/organizers for the symposium
- seek out international focused remanufacturing and value recovery research to showcase public policy effects on recovery activities
- organize a future workshop to discuss remanufacturing and value recovery research thrusts.

Organizers:

Dr. Jeremy L. Rickli, Wayne State University, Detroit, MI, USA. 313-577-0143; jrickli@wayne.edu

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* The conference is collocated with NAMRI/SME's 47th North American Manufacturing Research Conference (NAMRC47), which will have a separate call-for-papers. Please note that submissions of the same paper to more than one conferences are not permitted.