ASME Journal of Mechanical Design Special Issue: Data-Driven Design (D³)

With the arrival of Cyber-Physical Systems or Internet of Things (IoT) era, the massive human- and machine-generated data can create unprecedented challenges and at the same time unmatched opportunities in advancing the theory, methods, tools and practice of Data-Driven Design (D^3) for products, systems and services. By exploiting such huge, versatile and highly contextualized through-life data, design engineers can harness their organization's competitive edge by uncovering patterns, novel insights and knowledge for D^3 . The aim of this special issue is to bring together original and archival articles that present significant contributions in advancing the D^3 field. Examples of D^3 topics of interest include (but are not limited to):

- D³ foundation and platform building
- D³ theory and principles
- D³ of engineering decisions
- D³ analytics: algorithm advances
- Big Data-driven Design with online reviews, and with user and system generated data
- Big Data-driven Design with social computing, crowdsourcing and human-machine interaction
- Machine learning-based model engineering for D³
- Uncertainty issues in D³
- Analytics of human behaviors for D³
- D³ for integrated cyber-physical systems (IoT, sensor data, etc.)
- D³ in prognostics and health management
- D³ in engineering education

Relevance to engineering design will be explicitly considered as a criterion in the review process.

Submission Instructions:

Please submit your paper to ASME at <u>http://journaltool.asme.org/Content/index.cfm</u> and note on the cover page that your paper is intended for the special issue on "Data-Driven Design". Please also email the Editor, Dr. Shapour Azarm at <u>editor@asmejmd.org</u> (and cc: <u>assistant@asmejmd.org</u>) to alert them that your paper is intended for the special issue. Information about the Journal of Mechanical Design can be found at <u>http://www.asmejmd.org</u>/. *Please note that a limit of 12 journal pages without ASME page fees will be observed*.

Publication Target Dates:

- Submission of papers by: February 20, 2017
- Initial review completed by: April 10, 2017
- Publication of special issue: November 2017

Papers received after February 20, 2017, may still be considered for the special issue if time and space permit. In certain circumstances, papers that are not ready for production in time for inclusion in the special issue may be considered for a regular issue of the journal.

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