



## Call for Papers for a Special Issue on **Advances and Challenges in Cloud Manufacturing** *Transactions of the ASME* **Journal of Manufacturing Science and Engineering**

Cloud computing (e.g. Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS)) represents a new-generation, service-oriented business model in support of multiple companies for deploying and managing services over the Internet. Cloud-based manufacturing, or cloud manufacturing, would provide cost-effective, flexible and scalable solutions to companies by sharing complex manufacturing resources with lower support and maintenance costs. Recently, cloud manufacturing has emerged as an imperative research area for developing comprehensive and user-friendly services for factories of the future. It leads to the need of publishing a collection of research papers focusing on Advances and Challenges in Cloud Manufacturing, as a Special Issue of the ASME Transactions, *Journal of Manufacturing Science and Engineering*. Papers are invited dealing with theoretical and experimental advances in this promising area, particularly addressing the current challenges. Emerging issues in service-oriented architecture, cloud platforms, collaborative web services, industrial applications and state-of-the-art literature survey are encouraged. Topics of interest include, but are not limited to:

- Cloud platform and architecture design
- Semantics and ontology of cloud manufacturing
- Virtualisation of manufacturing resources
- Cloud manufacturing resources management and servicelisation
- Service-oriented process planning and scheduling
- Cloud robotics in manufacturing
- Information and communication technologies for cloud manufacturing
- Eco-aware adaptive resource planning services
- Cloud-based prognosis for predictive maintenance
- Cloud manufacturing for supply chain management
- Case studies of cloud manufacturing
- Standardisation of cloud manufacturing services

This Special Issue is planned for August 2015. Paper submissions are due on **October 15, 2014**.

### **Submission Guidelines:**

Papers should be submitted electronically to the Journal at <http://journaltool.asme.org>. If you already have an account, login as author and select **Submit Paper** at the bottom of the page. If you do not have an account, select **Submissions** and follow the steps. In either case, at the **Paper Submittal** page, select the **Journal of Manufacturing Science and Engineering** and *then* select the special issue **Advances and Challenges in Cloud Manufacturing**.

### **Guest Editors:**

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