

As we complete the seventh year of publication, I am writing this editorial to report to you the state of JCISE.

JCISE began publication at the start of the new millennium. It was created by ASME CIE Division to provide a forum for publishing high quality archival research at the intersection of engineering and computer science. The journal was established by the effort of many people, particularly Yong Se Kim, Simon Szykman, David Rosen and David Lee. Significant milestones in the evolution of JCISE include the co-operative arrangement with ACM (Association for Computing Machinery) from 2001–2004, inclusion of JCISE in SCI index in 2004 and joint sponsorship of ASME Design Engineering Division in 2006.

What kinds of papers are published in JCISE? Of the almost 300 papers published in JCISE in the past seven years, Geometric modeling, including solid modeling, constraint solving, parameters, features, assembly modeling and surface modeling account for about 30% of all papers. Computational metrology, tolerance modeling and analysis, CMM and inspection planning continue to present many challenges, as evidenced by the large number of papers appearing in JCISE, just under 20%. The next large group is from Computer aided Manufacturing, including CAPP, process simulation and plan optimization. Machining seems to still be the main focus of such research, followed by injection molding and solid free form fabrication. In recent years, a few papers have appeared on subjects related to micro-fabrication. In addition to computational techniques, JCISE also focuses on Information Science applied to engineering, as indicated by the title of our journal. Papers on engineering information management, data models, ontologies and data exchange have been another big part of JCISE. Recent IT trends appear to be in the direction of developing integration frameworks and collaborative environments.

Other areas represented in JCISE issues are Virtual Reality and Immersive Environments, Simulation (mostly meshing), Optimization, and AI and Knowledge based Systems. One surprise has been the fewer than expected number of submissions in Artificial Intelligence and Knowledge based Systems (AI/KBS). Perhaps this area is not as popular in engineering as it once was, or maybe the papers are going to journals narrowly focused on those topics.

JCISE has published many special issues to introduce the journal to new communities or to highlight emerging technologies. JCISE special issues have included the following topics: Meshing, Reverse Engineering, Collaborative Engineering, Computational Metrology, Engineering Information Management, and Computer aided Conceptual Design (CACD). The issue on CACD led us to the realization that some areas are in very early stages of development and not yet ready to produce archival papers. In the coming year we plan to publish two special issues: one on Engineering Informatics and the other on Haptics in Immersive Environments. Review of papers in these areas is already underway.

In addition to full length research articles, we also publish papers in the Application Track. These represent innovations in software or data technology that have mechanical design or simulation implications. The archival value of such publications is in the

innovation part of the system design and not necessarily in the theory. Industry pilot projects or prototype implementation are also appropriate for such briefs.

For the first four years of JCISE, ACM was a joint sponsor with ASME. As part of this cooperation, we published one special issue each year composed of the best papers from the ACM Solid Modeling conference. All papers had to go through an additional review process to ensure that they met *Transaction* level quality. One difficulty with this arrangement was that some of the best papers forwarded to us did not fit well into our scope. We focus strictly on mechanical and electro-mechanical product development but the ACM conference has a much broader scope and includes geometric computing technologies for all kinds of applications, such as video games, medicine, geology, etc. When the ACM Solid Modeling conference was combined with IEEE Surface Modeling conference we ran into new problems related to copyright ownership. After producing four wonderful issues from best papers presented at ACM conferences, this tradition was discontinued by mutual agreement.

In 2004 ISI accepted JCISE into its citation index. It requires three years of data collection to compute Impact Factors. Just a few months ago ISI released Impact Factors for JCISE for the first time. The good news is that our IF of 0.531 puts us in the top one-third of our peers. The bad news is that IF is not a good measure of quality or impact but many people are using this number for various purposes. Whether I agree with such uses or not, I am forced to pay attention to this “measure” and think about ways to continually improve our score.

Unlike other journals in our field, JCISE is published by a non-profit, professional society. The ASME’s *Transaction* label is reserved for archival scholarly journals of highest quality. To ensure quality, all Transactions operate under strict guidelines set by ASME’s Publication Committee. This includes a multi-layered paper review system, formal processes for review and appointment of Editors and Associate Editors, term limits and central oversight. In addition, JCISE is governed by an Advisory Board with representatives from sponsoring and co-sponsoring Divisions of ASME. JCISE also provides full transparency of its review process through its web-based paper management system, eLane. Authors can view every detail related to their paper at any time; they can see how many reviewers have been assigned, when each downloaded the paper, when each submitted the review and the recommendation made by the Associate Editor. Once the reviews are submitted they cannot be edited or deleted and must be shared in their entirety with the authors. The only information kept confidential is the identity of the reviewers. Few journals provide this level of access to authors. We are also proud of our industry leading average review times and submission-to-publication time. Our acceptance rates are comparable to those of other ASME Transactions.

The most important people for building and maintaining the quality of JCISE are our Associate Editors. I would like to take this opportunity to acknowledge the key role they play and to thank them for their dedicated service to our community. I have included a profile of our current Associate Editors in this issue. I

would also like to recognize the distinguished group of people who serve on our Advisory Board. Their profiles are also included in this issue. Last but not least, I would like to thank all our reviewers for their time and effort in evaluating JCISE papers. Realizing the demands on our reviewer's time, we limit the total number of review cycles to just two. After that a final accept/reject decision must be made. This is a departure from other ASME journals.

I would be very happy to receive comments, suggestions, feedback from our readers so as to make continuous improvements to the JCISE.

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