
Although it has been my privilege and honor to serve as Technical Editor (TE) of the ASME Journal of Mechanical Design (JMD) for the last five years, at the end of December 2017 when my term ends, I will hand over the journal to the excellent leadership of the next TE. As this is my last Editorial, it is an ideal opportunity to give a report on the state of the journal and express my gratitude to those who have contributed their hard work and expertise to JMD throughout my term (2013–2017).

Over the last five years, JMD has received contributions from all areas of engineering design with emphasis on synthesis. Example topics include:

(i) design automation, including design representation, virtual reality, geometric design, design evaluation, design optimization, risk- and reliability-based optimization, simulation-based design under uncertainty, design sensitivity analysis, system design integration, ergonomic and aesthetic considerations, design for market systems, data-driven design, origami and tesselation in design, design for user experience, needs and preferences, and design for materials and structures;
(ii) design of direct contact systems, including design of cams, gears, and power transmission systems;
(iii) design education;
(iv) design of energy, fluid, and power handling systems;
(v) design innovation and devices, including design of smart products and materials;
(vi) design for manufacturing and the life cycle, including design for the environment, DFX, design for additive manufacturing, and sustainable design;
(vii) design of mechanisms and robotic systems, including design of macro-, micro-, and nanoscaled mechanical systems, machine component, and machine system design; and
(viii) design theory and methodology, including creativity in design, decision analysis, design cognition, bio-inspired design, and design synthesis.

Selected key statistics drawn from Journal Tool for the years 2013–2017 reveal a steady increase in the number of submissions, an increase in selectivity, and significant reduction in review times. For example:

- In 2013, JMD had 567 submissions, with an acceptance rate (number of accepted papers divided by the number of (submitted – withdrawn\(^1\) – removed\(^2\)) papers) of about 32%.
- In 2016, the number of submissions was 869, with an acceptance rate of about 25%.
- The average time from submission to publication of an article was about 10.59 months in 2013, while in 2016 was reduced to 7.63 months. In 2013, the average review time, including two or more rounds of review, was 144 days. By 2016, the average review time had been reduced to 105 days.
- As of this writing (October 2017), JMD has received 713 submissions out of which 121 are under review, 59 have been accepted (37 of which have been published), 312 rejected, 84 withdrawn, and 137 removed.

The JMD’s Journal Impact Factor (JIF\(^3\)) and 5-year JIF\(^4\) have also been improving for several years now. For JMD, JIF and 5-yr JIF have been as follows: for 2013, JIF = 1.165; 5-yr JIF = 1.394; for 2014, JIF = 1.250 and 5-yr JIF = 1.561; for 2015, JIF = 1.444 and 5-yr JIF = 1.688; and for 2016, JIF = 2.565 and 5-yr JIF = 3.017. According to ISI, JMD is rated to be in the top quartile among 130 journals in the mechanical engineering field.

In addition to steadily improving its statistics, JMD has endeavored to solicit the best quality papers and promote the visibility of the journal. Since 2013, JMD has had a number of successful special issues on a variety of emerging topics, as listed below:


\(^1\)The “withdrawn papers” refer to submissions that are withdrawn by corresponding authors.

\(^2\)The “removed papers” are those removed by TE during a pre-screening stage. The pre-screening is done to identify papers that have language, scope, and contribution issues.

\(^3\)JIF is defined by the Institute for Scientific Information (ISI) (Clarivate Analytics) and calculated for a given year as the ratio of the number of citations in that year to the papers published in the journal in the preceding two years, divided by the number of papers that are published in the journal during the same two years. In essence, JIF represents an average number of times that an article in the journal is cited in a particular year.

\(^4\)The 5-yr JIF for a particular year refers to the yearly average number of times articles in the journal that have been cited in the preceding five years.


Following the example of some of the other ASME journals, JMD also began the process of recognizing outstanding papers. In this regard, in May 2014 I wrote an Editorial in JMD titled: “Announcing JMD’s Annual Best Paper Award Guidelines.” That editorial discussed the motivation, purpose, criteria for selection, and selection process. However, after further thoughts and inputs from other ASME Editors, it was decided to rename the award as the “Editors’ Choice” paper award rather than “Best Paper” award. I then formed and charged a committee to select Editors’ Choice papers from a list of papers that were nominated and voted by associate and special issue guest editors. From that list, the committee selected one paper for each of the years 2014–2016 and granted Editor’s Choice Paper Award to the authors of each. The papers awarded were as follows:


In an effort to promote the visibility of the journal, through the work of Associate Editor Harrison Kim and Editorial Assistant Amy Suski, JMD launched a new version of the companion website, including a “Featured Articles” section that highlights the research contributions of work published by the journal in an abridged format that can be widely shared in industry, academia, and social media outlets.

The continued success of JMD has been due to the extraordinary hard work and dedication of numerous individuals, including technical editors (and their editorial board) who served the journal for years, guest editors, my Editorial Assistant (Amy Suski) whom I cannot thank enough for doing her job with utmost professionalism and precision, and the ASME publication staff (Colin McAteer, Journals Manager; Jennifer Smith, Production Coordinator; and ASME staff Beth Darchi and Tamiko Fung) who patiently resolved numerous publication related issues. I am also indebted to our reviewers whose insightful reviews clearly show that they do care deeply about the quality of papers published in the journal.

Finally, I wish all the best for the next TE of JMD!

Shapour Azarm, Technical Editor
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Below is a listing and short biography of the associate editors and special issue guest editors who served the journal during the period 2013–2017:

Associate Editors:

Janet K. Allen, Associate Editor 2006–2013, earned her B.S. degree from the Massachusetts Institute of Technology and Ph.D. from the University of California, Berkeley, CA. She is a Professor and John and Mary Moore Chair of Industrial Engineering at the University of Oklahoma. The focus of Dr. Allen’s research is a simulation-based design of complex systems and the management of uncertainty.

Oscar Alvarra, Associate Editor 2012 to present, received his M.Sc. Mechanical Engineering degree and a Ph.D. degree in Mechanical Engineering from the Engineering School of Bilbao, Universidad del País Vasco (UPV/EHU), Leioa, Spain, and a Diploma in higher studies from the Coventry University in Coventry, UK. He is a Professor in the Department of Mechanical Engineering at the Engineering School of Bilbao, UPV/EHU. His research interests are theoretical kinematics, mechanisms, design of parallel kinematic machines, robotics, and computational solutions to complex mechanical problems in the field of the theory of mechanisms.

Christina L. Bloebaum, Associate Editor 2016 to present, received her B.S., M.S., and Ph.D. degrees in aerospace engineering from the University of Florida in Gainesville, FL. She is the Dennis and Rebecca Muilenburg Professor of Aerospace Engineering at Iowa State University (ISU) in Ames, IA. She is also a member of the Virtual Reality Applications Center (VRAC) and the Human–Computer Interaction program at ISU. She conducts research in design of complex engineered systems, with an emphasis on achieving consistency in physics through incorporation of multidisciplinary design optimization as well as preferences through incorporation of value-based systems engineering and decision analysis.

Diann Brei, Associate Editor 2008–2013, earned her B.S.E degree in Computer Systems Engineering and her Ph.D. in Mechanical Engineering from Arizona State University. She is a Professor of Mechanical Engineering Department at the University of Michigan, Ann Arbor, MI and co-directs the General Motors/University of Michigan Multifunctional Vehicle Systems Collaborative Research Laboratory. Her research interests include integrated design methodology/processes, device innovation, smart materials and structures, and actuation.

Jonathan Cagan, Associate Editor 1998–2001 and 2008–2014, received his Bachelor of Science and Master of Science from the University of Rochester, and his Ph.D. from the University of California at Berkeley, all in Mechanical Engineering. He is the George Tallman and Florence Barrett Ladd Professor in Engineering, in the Department of Mechanical Engineering at Carnegie Mellon University, with courtesy appointment in the School of Design. At Carnegie Mellon he serves as Associate Dean for Graduate and Faculty Affairs in the College of Engineering, co-directs the Integrated Innovation Institute, and is a faculty co-director of the Swartz Center for Entrepreneurship. His research focuses on product development, computational innovation, and cognitive-based engineering.
Massimo Callegari, Associate Editor 2015 to present, received the Laurea degree in Mechanical Engineering from the University of Genova, Genova, Italy. He is a Professor of Machine Mechanics, Chair of the Board of Teachers of Mechanical Engineering degrees, member of the Steering Committee, and Deputy Director of the department of Industrial Engineering and Mathematical Sciences at the Faculty of Engineering of the Polytechnic University of Marche in Ancona, Italy. He has participated into different national and international research projects in the fields of automation, robotics, and innovative handling devices.

Dar-Zen Chen, Associate Editor 2015–present, received his B.S. degree from National Taiwan University (NTU) and M.S. and Ph.D. degrees in Mechanical Engineering from the University of Maryland, College Park, MD. He is a professor in the Department of Mechanical Engineering and Institute of Industrial Engineering at National Taiwan University. In addition to robotics, kinematics, and mechanism design, his research interests also cover intellectual property management, scientometrics, and competitive analysis.

We Chen, Associate Editor 2003–2006 and 2010–2013 and Guest Editor 2014–2015, earned her Ph.D. from the Georgia Institute of Technology, M.S. from University of Houston, and B.S. from Shanghai Jiao Tong University, China, all in mechanical engineering. She is a Wilson-Cook Chair Professor in Engineering Design at Northwestern University in the Department of Mechanical Engineering. Her research focuses on design under uncertainty, consumer choice modeling, and decision making in design.

Olivier L. de Weck, Associate Editor 2010–2013, obtained his degree in Industrial Engineering from ETH Zurich and S.M. and Ph.D. degrees in Aerospace Engineering from the Massachusetts Institute of Technology (MIT). He is an Associate Professor of Engineering Systems and Aeronautics and Astronautics at MIT. His research focuses on understanding how complex man-made systems evolve over time and how we can design them to be more changeable while maximizing lifecycle value.

Andy Dong, Associate Editor 2013–2016, earned a B.S., M.S., and Ph.D. from the University of California at Berkeley, all in Mechanical Engineering. He is a Professor and holds the Warren Centre Chair for Engineering Innovation in the Faculty of Engineering and Information Technologies at the University of Sydney. Professor Dong is an expert in the analysis of design data such as organizational interactions, design documents, and product data to forecast and manage the performance of engineering design.

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Zhang-Hua Fong, Associate Editor 2013–2015, received a B.S. degree from National Chung Hsing University and M.S. and Ph.D. degrees from National Chiao Tung University, all in mechanical engineering. He is a Research Professor in the Department of Mechanical Engineering and Dean of the College of Engineering at National Chung Cheng University in Taiwan.

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Special Issue Guest Editors

Jesse R. Boyer, Guest Editor 2016–2017, holds two B.S.E. degrees from the University of Michigan in Aerospace Engineering and Naval Architecture and Marine Engineering. He is currently the Additive Manufacturing Fellow at Pratt & Whitney (P&W) and is involved curriculum development at the University of Connecticut and the University of Hartford. His research focus is on key process variables to control additive manufacturing, in-process monitoring for production, digital thread related to inspection, and additive manufacturing.

Matt Campbell, Guest Editor 2015–2016, received his B.S., M.S., and Ph.D. from Carnegie Mellon University. Dr. Campbell is a Professor of Mechanical Engineering at Oregon State University with research focusing on methods that independently create solutions for typical mechanical engineering design problems like gear trains, sheet metal, planar mechanisms, and planning for manufacturing, assembly, and disassembly. He has expertise in a variety of fields such as machine design, design theory, artificial intelligence, graph theory, and numerical optimization.

Clive L. Dym, Guest Editor 2015–2016, completed the B.S.C.E. at Cooper Union, an M.S. at Brooklyn Polytechnic Institute, and Ph.D. at Stanford University. Dr. Dym was a Professor Emeritus of Engineering at Harvey Mudd College where he was the Fletcher Jones Professor of Engineering Design and Director of the Center for Design Education at Harvey Mudd, as well as Engineering Department Chair. His interests included design theory, knowledge-based (expert) systems for engineering design, and structural and applied mechanics.

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