

ASME Design Engineering Division General Committee Meeting

Agenda

Tuesday August 17, 2010, 2:30 – 5:30 pm

Place: Ramezay

Fairmont, The Queen Elizabeth

Montreal, Canada

- | | | | |
|--|----------------------------------|------------|----------------|
| 1. Call to Order | H. Hamidzadeh | 2:30 pm | |
| 2. Approval of Minutes | S. K. Agrawal | 2:32 pm | |
| 3. Report of the Executive Committee | H. Hamidzadeh | 2:35 pm | |
| 4. Technical Committee and IMECE Reports | W. Chen | 2:45 pm | |
| (Please limit each committee report to 3 minutes) | | | |
| (a) Design Automation | Z. Mourelatos | | |
| (b) Design Education | J. Mountain | | |
| (c) Design for Manufacturing and Life Cycle | K. Saitou | | |
| (d) Design Theory and Methodology | L. Shu | | |
| (e) Fastening and Joining | E. V. Iarve | | |
| (f) Mechanisms and Robotics | J. Ge | | |
| (g) Mechatronic and Embedded Systems and Applications | P. Zingaretti | | |
| (h) Micro and Nano Systems | G. Wiens | | |
| (i) Multibody Systems and Nonlinear Dynamics | B. Balachandran | | |
| (j) Power Transmission and Gearing | A. Singh | | |
| (k) Reliability, Stress Analysis, and Failure Prevention | T. Sawa | | |
| (l) Vehicle Design | B. Gilmore | | |
| (m) Vibration and Sound | B. Feeny | | |
| 5. Liaison Reports | | | |
| (Please limit each report to 3 minutes) | | | |
| (a) Journal of Mechanical Design | P. Papalambros | 3:30 pm | |
| (b) Journal of Mechanism and Robotics | J.M. McCarthy | | |
| (c) Journal of Vibration and Acoustics | N. Perkins | | |
| (d) Journal of Computational and Nonlinear Dynamics | S. Sinha | | |
| (e) Journal of Computing and Information Science in Engineering | B. Ravani | | |
| (f) Journal of Medical Devices | A. Erdman/G. Miller | | |
| 6. Vice Chair/Treasurer's report
(Funding levels allocations in committee accounts) | W. C. Clark | 3:50 pm | |
| 7. IDETC Technical Conferences | V. Kumar | 4:05 pm | |
| 8. ASME Headquarter Report | J. Falcioni, E. Dolan, R. Ulvila | 4:20 pm | |
| 9. Standing/Special Committee Reports | | | |
| (Please limit each committee report to 2 minutes) | | | |
| • Constitution and Bylaws | L. Schmidt | 4:30 pm | |
| • Government Relations | I. Tumer | | |
| • Honors and Awards | G. Fadel | | |
| • Nominating Committee | K. Kazerounian | | |
| • USCToMM | H. Lipkin | | |
| • Design Society | W. Seering | | |
| • Publicity and Newsletter | S. Orsborn | | |
| • Student Affairs | M. Parkinson | | |
| • Information Management | S. Gooch | | |
| • K-12 Awareness of Design Engineering | K. Jacobson | | |
| • Broadening Participation of Women and Minorities | J. Terpenney | | |
| • Special Committee on Publications | K. Anderson | | |
| • Innovation and Entrepreneurship | J. Rastegar | | |
| • Professional Engineering Licensure | A. Karvelis | | |
| 10. Old Business | DED Clusters | A. Shabana | 5:00 pm |
| 11. New Business | | | 5:10 pm |
| 12. Adjourn | | | 5:30 pm |
| 13. DED General Committee Reception | | | 5:00 – 6:00 pm |

DED Chair's Report
Hamid R. Hamidzadeh

August 15, 2010
EXECUTIVE COMMITTEE

The main changes in the DED Executive Committee are listed below:

1. Effective July 1, 2010, one new voting member Sunil K. Agrawal was elected as Secretary of the Executive Committee. I would like to thank Kazem Kazeronian, the Chair of the Nominating Committee and its members.
2. Kazem Kazeronian ended his tenure as a DED Executive Committee member. During the last year, Kazem served as the DED Past Chair. I would like to thank him for his dedicated services to the DED for many years. I trust that he will continue promoting the DED objectives for years to come.
3. Ahmed Shabana will replace Kazem as the Past Chair. I would like to take this opportunity to thank him for effectively leading our Division and enhancing the Division financially, administratively, and technically.
4. William Clark will be the Vice Chair/Treasurer. Vijay Kumar will continue to serve as the IDETC Executive for another year. Wei Chen will serve as the Technical Committee Executive and IMECE Executive for two years. Kurt Anderson will continue to serve as the Publication Committee Chair and Georges Fadel continue with his responsibility as the Chair of the Honors and Award Committee. Our newly elected member Sunil Agrawal will serve as the Secretary for one year.
5. During 2009-2010 the DED was recognized again as one the top ASME divisions that received an "A" grade for its performance.

FINANCES

1. The DED finances are in an excellent condition with over \$1,000,000 in all its accounts. The 2009 IDETC/CIE conference in San Diego was very successful with a profit of \$107,948.61. The DED custodial account received \$46,102.90, and the DED Technical Committees received \$61,845.71 based on the number of papers.
2. An award matching program was approved by the DED Executive Committee. The funds were expected to be allocated to the committee accounts. More details about the DED finances are presented in Buddy's report.

IDETC EVENTS

1. The IDETC events have become the premier international meetings in the fields of Design Engineering and they are organized to showcase cutting edge research and accomplishments, and to enrich the educational experience in related fields. The upcoming IDETC events are expected to grow and the DED has received proposals from the IDETC and IMECE Executive to reorganize the future IDETC events. It should be noted, too, that the DED has been actively represented in the International Mechanical Engineering Congress and Exposition.
2. In summary, the intended outcomes of the revised Policy P-12.1 are as follow. These changes have been effective since April 15, 2010 and will have an impact on the requirements for organizing the IDETC events:
 - Fair, uniform open conference planning
 - Forum for sharing best practices
 - A how-to procedure
 - Sound business practices for sustainable conferences
 - Conforming to IRS nonprofit requirements
 - Flexibility planning in an open Society

For further details please visit the following site:

http://www.asme.org/Governance/Society_Policies.cfm

Also see the Conference Planning Committee website for additional resources and required templates at:

<http://committees.asme.org/K&C/CPC/home.cfm>

3. According to the new ASME policy called Financial Accounting & Information Reporting (FAIR), all ASME conferences will be charged for the K&C staff time. For the DED, this includes working on CA-1/CA-2 forms, development of contract and MOU, accounting, and preparation for the awards. This policy has been effective since May 2010.

TECHNICAL COMMITTEES

Success of the DED has been made possible through the activities and accomplishments of its 13 dynamic Technical Committees, which act as pillars of the Division. These Technical Committees are:

- Design Automation
- Design Education
- Design for Manufacturing and the Life Cycle
- Design Theory and Methodology
- Fastening and Joining
- Mechanisms and Robotics

- Mechatronic and Embedded Systems and Applications (MESA)
- Micro & Nano Systems (MNS)
- Multibody Systems and Nonlinear Dynamics
- Power Transmission and Gearing
- Reliability, Stress Analysis & Failure Prevention
- Vehicle Design
- Vibration and Sound

JOURNALS

The DED's highly rated journals continue to offer important insights into original scientific developments in all aspects of Design Engineering. These journals are:

- *Journal of Computational and Nonlinear Dynamics*
- *Journal of Mechanical Design*
- *Journal of Mechanisms and Robotics*
- *Journal of Medical Devices* (co-sponsored with Bioengineering Division)
- *Journal of Vibration & Acoustics*
- *Journal of Computing and Information Science in Engineering* (co-sponsored with CIE Division),

Ahmed Shabana and Bahram Ravani, who were nominated by the current editors-in-chief for the ASME journals of *Computational and Nonlinear Dynamics*, and *Journal of Computing and Information Science in Engineering*, received unanimous endorsement by the DED Executive committee and they will start serving their respective journals as the new editor-in-chiefs on January 2011.

STANDING AND SPECIAL COMMITTEES

1. Committee on Broadening Participation of Women and Minorities: Judy Vance renewed her request from the DED to partially support a workshop for women and minorities at the 2010 IDETC. The funding was granted for refreshments and to support the travel of facilitators to the workshop. The proposal was unanimously approved by the DED EC.
2. Last Year Newsletter: The cost of producing and shipping the newsletter was \$10,981.34. For this year, it was recommended to have only electronic copies of the newsletter in order to reduce the cost.

Respectfully submitted,
Hamid R. Hamidzadeh

Technical Committees Report

- **Change of the Committee Chairs:** Changes in committee leadership this year are as follows (effective July 1st 2010):

Approved

1. Design Automation Committee (DAC): Kazuhiro Saito is replaced by Zissimos Mourelatos of Oakland University.
2. Design for Manufacturing and the Life Cycle Committee (DFMLC): Peter Sandborn is replaced by Kazuhiro Saito of the University of Michigan.
3. Vibration and Sound (TCVS): Chris Rahn is replaced by Brain Feeny of Michigan State University.

To be approved in the DED executive committee meeting (August 15, 2010)

4. Design Education Committee (DEC): Gul Kremer is replaced by Jeffrey Mountain of the University of Texas at Tyler.
5. Fastening and Joining (FJ): Endel Iarve is replaced by Timothy Breitzman of Air Force Research Laboratory.
6. Mechanisms and Robotics (M&R): Jahangir Rastegar by Jeffrey Ge of Stony Brook University.
7. Mechatronic and Embedded Systems and Applications (MESA): Yangquan Chen by Primo Zingaretti of Universita Politecnica delle Marche.
8. Micro & Nano Systems (MNS): Arvind Raman by Gloria Wiens of the University of Florida at Gainesville.

No Change

9. Design Theory and Methodology (DTM): Li Shu of University of Toronto.
10. Multibody Systems and Nonlinear Dynamics (MSND): Balakumar Balachandran of University of Maryland.
11. Power Transmission and Gearing (PTG): Avinash Singh of General Motors
12. Reliability, Stress Analysis and Failure Prevention (RSAFP): Toshiyuki Sawa, of Hiroshima University.
13. Vehicle Design: Brian Gilmore of John Deere.

- **Matching Funds to Committee Award Accounts:** The Executive Committee approved matching of up to \$5,000 to two award accounts (for a total of \$10,000 in matching funds). The table below shows the matching funds that were approved, by committee. The total award account allocation from this activity is \$97,674, with \$46,337 coming from the DED account.

Technical Committee Matching Fund Allocations
 (Note: Account # 4-0414-0000 is the DED account)

	TC	From Account	To Account	Approved Allocation	Comments
1	TCVS	4-0414-5041 4-0414-0000	4-0414-5007 4-0414-5007	\$5,000 \$5,000	Total of \$10,000 transferred from the TCVS and DED accounts to the TCVS Myklestad Award .
2	DAC	4-0414-5032 4-0414-0000	4-0414-5061	\$3,000 \$3,000	Total of \$6,000 transferred from the DAC and DED accounts to the DAC Young Investigator Award .
3	DAC	4-0414-5032 4-0414-0000	4-0414-5001	\$4,342 \$4,342	This will put a total of \$8,684 in the DAC Award account .
4	MSND	4-0414-5050 4-0414-0000	4-0414-5054 4-0414-5054	\$4,000 \$4,000	Total of \$8,000 transferred from the MSND and DED accounts to the Lyapunov Award account (limited by the \$45K ceiling – account currently has \$37K).
5	MSND	4-0414-5050 4-0414-0000	4-0414-5053 4-0414-5053	\$4,000 \$4,000	Total of \$8,000 transferred from the MSND and DED accounts to the D’Alembert Award account (limited by the \$45K ceiling – account currently has \$37K).
6	DTM	4-0414-5036 4-0414-0000	4-0414-5008 4-0414-5008	\$5,000 \$5,000	Total of \$10,000 transferred from the DTM and DED accounts to the DTM Committee Award .
8	M&R	4-0414-5034 4-0414-0000	4-0414-5006 4-0414-5006	\$5,000 \$5,000	Total of \$10,000 transferred from the MR and DED accounts to the M&R Award
9	M&R	4-0414-5034 4-0414-0000	** **	\$5,000 \$5,000	Total of \$10,000 transferred from the MR and DED accounts to establish a new award account: the Freudenstein Young Investigator Award.‡
10	MESA	** (new account) 4-041400000	** **	\$4,995† \$4,995	Total of \$9,990 transferred from the MESA and DED accounts to establish a new award account: the MESA Awards .
11	PTG	4-0414-5042	4-0414-5010	\$4,000	Total of \$8,000 transferred

		4-0414-0000	4-0414-5010	\$4,000	from the PTG and DED accounts to the Darle Dudley Award account.
12	MNS	4-0414-5060 4-0414-0000	4-0414-5063 4-0414-5063	\$2,000 \$2,000	Total of \$4,000 transferred from the MNS and DED accounts to the MNS Innovator Award .
	Total	From TCs From DED		\$46,337 \$46,337	

‡The Freudenstein Young Investigator award was regularly funded by GM up until a few years ago, and M&R would like to establish a new account for this award to stabilize its funding.

†This is the current MESA account balance, so is all that is available to transfer to an award account.

Submitted by

William W. Clack (TC Chair till June 30, 2010)

Wei Chen (TC Chair beginning July 1st, 2010)

August 2010

IMECE Report

2010 IMECE

- **Location:** The 2010 IMECE will be held in Vancouver, British Columbia, from November 12-18.

- **Track Organizers:**

Track 4: Design and Manufacturing

Track Co-Organizer: Endel V Iarve, *Air Force Research Laboratory* (Technical Committee on Fastening and Joining)

Symposia: 16

Sessions:

Track 6 NanoEngineering for Energy

Track Co-Organizer: Hornsen (HS) TZOU, *Zhejiang University* (Technical Committee on Vibration and Sound)

Symposia: 11

Sessions:

Track 11: Dynamic Systems and Control

Track Organizer: Albert Luo, *Southern Illinois University Edwardsville* (Technical Committee on Vibration and Sound)

Track Co-Organizer: Liming Dai, *University of Regina* (Technical Committee on Vibration and Sound)

Symposia: 9

Sessions: 44

Topic Co-Organizer: Bogdan Epureanu, *University of Michigan* (Technical Committee on Multibody Systems and Nonlinear Dynamics)

Symposia: 11-6 & 11-7

Track 12: Mechanical of Solids, Structures, and Fluids

Track Co-Organizer: Larry Bergman, *University of Illinois*

Symposia: 41

Sessions:

Track 19: Transportation

Track Co-Organizer: Khaled Zaazaa, *Ensc0, Inc.* (Technical Committee on Multibody Systems and Nonlinear Dynamics)

Symposia: 4

Sessions: 12

Submitted by

William W. Clack (TC Chair till June 30, 2010)

Wei Chen (TC Chair beginning July 1st, 2010)

August 2010

ASME Design Automation Committee Report

July 9, 2010

The ASME Design Automation Committee promotes research and disseminates knowledge in four key areas related to Design Automation: (1) Design Representation, (2) Design Optimization, (3) Design Evaluation, and (4) Design Integration.

For the 2009 ASME IDETC held in San Diego, CA, 158 papers were submitted to the Design Automation Conference, of which 123 papers were accepted. These papers were presented in 27 technical sessions in three parallel tracks. Dr. M. Li, Dr. N. Williams, and Prof. S. Azarm from the University of Maryland at College Park received the Ford Motor Company Best Paper Award for their paper entitled, “Interval Uncertainty Reduction and Single-Disciplinary Sensitivity Analysis with Multi-Objective Optimization” (DETC2009-86282).

Our DAC Keynote Speaker, Dr. Stewart Coulter (General Manager, DEKA Research and Development), shared his experiences and views on fostering successful design innovation. Two panels were also held at the conference. Our Industrial Liaison, Dr. David M. Dietrich from Boeing Research and Technology, assembled a panel of experts from industry who shared their experiences “on taking advantage of emerging manufacturing capabilities through innovative design and rapid manufacturing.” Also, Prof. Judy M. Vance from Iowa State University assembled another industrial panel “on success stories and future challenges in virtual reality applications in industry.” This panel was co-organized between DAC and CIE.

We anticipate another exciting Design Automation Conference (DAC) in 2010. This year, 145 papers were submitted to the conference, and 112 papers were accepted after a rigorous peer review process. These accepted papers cover 33 topics spanning Design Automation’s four key research areas, and they will be presented in 23 technical sessions, running in three parallel tracks. Following DAC’s annual tradition, one of these outstanding papers will be selected for the Best Paper Award sponsored by the FORD Motor Company – the winner will be announced at the DED Awards Luncheon at the conference. The winner of the 2009 Design Automation Award and the newly established Design Automation Young Investigator Award will also be announced at the luncheon.

We also have an exciting Plenary Speaker planned for this year’s DAC. Dennis W. Watson, General Manager of GE Infrastructure Engineering Tools Center of Excellence, will share his experiences and views on design for six sigma and probabilistic optimization in aircraft engine design.

We continue to attract many applicants to serve on the DAC Executive Committee. In 2010, Dr. Horea Ilies (University of Connecticut) was elected to serve on the Executive Committee as the Special Sessions Paper Chair for the 2011 ASME IDETC - Design Automation Conference. He joins Committee Chair Dr. Zissimos P. Mourelatos (Oakland University), Conference Chair Dr. Kemper Lewis (University at Buffalo – SUNY), Program Chair Dr. Gary Wang (Simon Fraser University, British Columbia), and Industry Liaison Mr. David Dietrich (The Boeing Company). Dr. Kazuhiro Saitou (University of Michigan) is the Committee’s Past Chair. Dr. Horea Ilies

(University of Connecticut) also maintains the websites for our conference and committee
<http://cdl.engr.uconn.edu/asmeda>.

Respectively submitted,

Kazuhiro Saitou
University of Michigan
Chair, 2009-10 Design Automation Executive Committee

Zissimos P. Mourelatos
Oakland University
Chair, 2010-11 Design Automation Executive Committee

Design Education

Gül Kremer, Committee Chair

The Symposium on International Design and Design Education is maintaining a steadily increasing interest in design education. IDETC 2010 marks the 7th year for our participation in the conference. Last year, DEC had 33 technical papers in addition to 6 student papers featuring the best submissions to the Young Design Engineer's Paper Competition. For DEC 2010, we have received 49 initial abstracts, resulting in 35 draft technical paper submissions; 30 of which were accepted for final publication following a rigorous review process. Due to an ongoing time conflict between completion of capstone design projects and the conference submissions schedule, the DEC has opted to review the Young Design Engineer's Paper Competition submissions offline and provide recognition for the best papers in the final program and during the DED awards luncheon.

For DEC 2010, the Conference Chair is Dirk Schaefer, and the Program Chair is Katie Grantham. We have identified three themes to increasingly take the center stage in our symposia for their impact on design education: (1) interdisciplinary design, (2) globalization, and (3) creativity and innovation. The Seventh Symposium on International Design and Design Education will feature sessions on these topics, along with sessions on best practices, service focused design, and design education via distance learning. We have several parallel efforts targeting an increased rigor in the technical paper submissions. For example, as a technical committee, we sponsor a "Best DEC Paper" award. Through this award we recognize the author(s) for their implementation of rigorous research methods on design education and international design topics. In the near future, we aim to grow our visibility under the IDETC umbrella through encouraging our colleagues to participate in both the DEC symposium as well as design related conferences represented at IDETC. We believe that design education and international design (our central topics) work synergistically with design engineering theory and practice. Accordingly, we hope to strengthen our collaborative efforts.

If you have ideas/suggestions in this regard please contact one of the DEC officers. Our current officers are: Gül Kremer, Chair; Phil Doepker, Associate Vice Chair and Chair of the International Activities Subcommittee; Jeffrey Mountain, Vice Chair; Mike Keefe, Secretary; and Al Karvelis, Treasurer. We are seeking nominations for the Program Chair position for the 2011 conference. Those interested in learning more about opportunities

within DEC are asked to contact Gül Kremer (Penn State) at gkremer@psu.edu. •

To: ASME Design Engineering Division Executive Committee

From: Kazuhiro Saitou, Chair, DFMLC Technical Committee
Marcos Esterman, Vice Chair, DFMLC Technical Committee
Shun Takai, Secretary, DFMLC Technical Committee

Date: 7/6/2010

Re: DFMLC Technical Committee Activities

We are pleased to submit this report to the Design Engineering Division about the activities of the Design for Manufacturing and the Life Cycle Technical Committee. Our main conference is the annual Design for Manufacturing and the Life Cycle (DFMLC) conference as part of IDETC. We have always sought to keep this a single track conference, so no participants need to miss any of the other paper presentations.

DFMLC 2010 Status Report

We expect a successful Design for Manufacturing and the Life Cycle (DFMLC) Conference this year. Sixty-eight papers were submitted to the 2010 conference, and fifty-six were accepted. The paper presentations are presented in a single track over three days. This year's conference reflects our continuing success in attracting relevant research from the Americas, Europe, and Asia. These papers are from academia and/or industry/academic partnerships. In the 2010 conference, we have organized a keynote lecture on Design for Sustainability. Also, there were substantial submissions in the area of sustainable design, which resulted in three separate sessions in that topic. While we were hoping to organize our first panel session dedicated to Entertainment Engineering under the leadership of John Wesner (Carnegie Mellon) and Dan Cook (University of Nevada Las Vegas), it did not materialize to make it in the program for the 2010 conference. Our hope is to generate paper submissions in 2011 to support this area.

Shun Takai (Chair – Missouri University of Science and Technology) and Gul Kremer (Program Chair – Pennsylvania State University) are to be congratulated for their fine organization of the 2010 conference. Gul Kremer will be the conference chair for the 2011 DFMLC conference.

Representation on ASME Journal Editorial Boards

The following persons are representing the DFMLC community as Associate Editors for ASME journals:

- Jeffrey W. Herrmann (immediate past DFMLC Chair) is an Associate Editor (Design for Manufacturing) for the *Journal of Mechanical Design* (JMD), 2006-2009.
- Kazuhiro Saitou (DFML Chair 2010-2011) is an Associate Editor (Computer Aided Engineering) for the *Journal of Computing and Information Science in Engineering* (JCISE), 2009-2012.

Design Theory and Methodology Committee – Annual Report

July 19, 2010

The mission of the Design Theory and Methodology Committee is to facilitate and enhance the development of design theories and the methods that grow from them.

DTM Conference: The 22nd International Conference on Design Theory and Methodology will be held at IDETC2010 in Montreal, Quebec, Canada. Daniel McAdams of Texas A & M University is the Conference Chair and John Clarkson of the University of Cambridge is the Program Chair. The 2010 conference consists of 11 technical sessions. The committee maintains the following statistics on submissions and acceptances:

Papers submitted: 85

Papers accepted: 54 (acceptance rate: %): 65%

Papers accepted with at least one author from an institution outside the United States: 24

The Best Paper Award goes to “Potential Limitations of Verbal Protocols in Design Experiments,” by Ivey Chiu of Ryerson University and L.H. Shu of the University of Toronto.

In addition to the traditional technical sessions, on the recommendation of the DTM Committee, one session will be run as an “elevator pitch” where authors present their paper for five minutes each, followed by a discussion involving both the authors and the audience. This is an experiment for this year’s DTM conference and we would welcome feedback from all those who take part. We anticipate continuing the DTM community’s tradition of filling our sessions and meetings with attentive audiences and provocative discussions.

The process of selecting papers is at the heart of a successful conference. This year, we had an excellent group of reviewers who generously offered their time and expertise and assisted with selection decisions. As always, this peer review process was successfully managed by an exceptional group of DTM Review Coordinators: Janet Allen, Cari Bryant Arnold, Eric Coatanéa, Carolyn Conner Seepersad, Andy Dong, Claudia Eckert, Dan Frey, Katja Hölttä-Otto, Michael Johnson, Tolga Kurtoglu, Julie Linsey, Erin MacDonald, Jay McCormack, Irem Tumer, Qi Van Eikema Hommes, David Wynn and Maria Yang. We greatly appreciate the time and effort these individuals contributed to maintaining the high quality of this DTM conference.

For the 23rd Annual DTM Conference in 2011, John Clarkson of the University of Cambridge will be the Conference Chair and Irem Tumer of Oregon State University will be the Program Chair. These positions were elected by the membership at the DTM committee meeting at IDETC2009 in San Diego, CA.

Officers: New officers for the committee will be elected at the committee meeting at IDETC2010. The current officers serving two-year terms beginning July 1, 2009 are:

Chair: L.H. Shu (U of Toronto)

Vice-chair: Janis Tepperney (Virginia Tech.)

Secretary: Dan Frey (MIT)

Webmaster: Rob Stone (OSU)

The next DTM Committee meeting will be held at IDETC2010 on Tuesday, August 17, 2010, at 5pm. All are welcome to participate.

Respectfully submitted,

L.H. Shu

Chair of the Design Theory and Methodology Subcommittee

The 2010 Mechanisms & Robotics Conference has a record 190 peer-reviewed technical papers organized in 10 Technical Symposia, 2 Plenary Speakers, 2 Discussion Panels, in addition to tutorials, workshops and the student mechanism and robot design competitions. The Tuesday morning keynote speech entitled "Cooperative Manipulation and Transport by Aerial and Ground Robots" will be given by Prof. Vijay Kumar, the UPS Foundation Professor of Mechanical Engineering at the University of Pennsylvania. The Wednesday morning keynote speech entitled "Mechanism Constraints - The Algebraic Formulation" will be given by Prof. Manfred Husty, the Professor of Geometry at Leopold-Franzens-Universität Innsbruck. The MR committee has also finalized a former procedure to nominate the Mechanisms and Robotics committee award.

Mechatronic and Embedded Systems Applications (MESA)

Technical Committee
<http://iel.ucdavis.edu/mesa>

Annual Report 2010

1. Committee Leadership

1.1. Officers and Executive Members of the MESA Committee:

Chair

YangQuan Chen
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Vice-Chair

Primo Zingaretti
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Dipartimento di Ingegneria Informatica, Gestionale e
dell'Automazione
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Treasurer

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1.2. Members of the Advisory Committee

Jorge Angeles, McGill University, Canada

David M. Auslander, Univ. of California, Berkeley, USA

Kevin C. Craig, Rensselaer Polytechnic Institute, USA

Krishna C. Gupta, Univ. of Illinois at Chicago, USA

C.S. George Lee, Purdue University, USA

Ren C. Luo, National Chung Cheng University, China

Bahram Ravani, Univ. of California, Davis, USA

Bruno Siciliano, Università di Napoli Federico II, Italy

T. J. Tarn, Washington University, USA

Masayoshi Tomizuka, U. of California, Berkeley, USA

Feiyue Wang, Chinese Academy of Sciences and Univ. of Arizona, USA

1.3. Chairs of the MESA Subcommittees

Chair of the Honors and Awards Subcommittee

Zuomin Dong, University of Victoria

Chair of the Education Subcommittee

TBA

Chair of the Industrial Liaison Subcommittee

TBA

1.4. Chairs of the MESA Symposia

Chair of Autonomous Systems and Ambient Intelligence:

Hyo-Sung Ahn, Gwangju Institute of Science & Tech., Korea

Chair of Autonomic and Distributed Mechatronic and Embedded Systems

Yu-Cheng Chou, Chung Yuan Christian University, Taiwan

Chair of Bio-Mechatronics and Bio-Sensors

Shane Xie, University of Auckland, New Zealand

Chair of Cyber-Physical Systems and Cooperative Systems

Stephen Nestinger, Worcester Polytechnic Institute, USA

Chair of Development, Verification, Debug Tools for Mechatronic and Embedded Systems

Jia Xu, York University, Canada

Chair of Embedded Computer Vision

Peter Rössler, University of Applied Sciences Technikum Wien, Austria

Chair of Embedded System Infrastructure and Theory

Martin Horauer, Univ. of Applied Sciences Technikum Wien, Austria

Chair of Fractional Order Dynamic Systems and Controls

Yan Li, Faculty of School of Control Science and Engineering, Shandong University

Chair of Diagnosis and Monitoring in Mechatronic Systems

Wen Chen, Wayne State University, USA

Chair of Mechatronic and Embedded System Applications

Emanuele Frontoni, Università Politecnica delle Marche, Facoltà di Ingegneria

Chair of Mechatronic and Embedded Systems in Education Symposium

Zhaoqing Wang, Zhejiang Sci-Tech University, China

Chair of Mechatronic and Embedded Systems for Renewable Energy Systems

Uriel A. Rosa, University of California, Davis

Chair of Mechatronics Control and Electrical Vehicles

Chengbin Ma, UM-SJTU Joint Institute, Shanghai Jiaotong Univ.

Chair of Robotics and Mobile Machines

Xianwen Kong, Heriot-Watt University, UK

Chair of Sensors and MEMS

Ja Choon Koo, Sungkyunkwan University, Korea

Chair of Sensor Networks and Networked Embedded Systems

Bo Chen, Michigan Technological University, USA

Chair of Small Unmanned Aerial Vehicle Technologies & Applications

YangQuan Chen, Utah State University, USA

1.5. MESA Representatives of Journals and Transactions Serving as Associate Editors for the following journals:

ASME Journal of Dynamic Systems, Measurement, and Control

YangQuan Chen, Utah State University, USA

2. Technical Conferences

The MESA technical committee organizes since 2005 the annual International Conference on Mechatronic and Embedded Systems and Applications (MESA) co-sponsored by:

- ASME Division of Design Engineering (DED)
- IEEE Intelligent Transportation Systems Society (IEEE ITSS)
- IEEE Control Systems Society (IEEE CSS)

In odd numbered years, the MESA Committee sponsors the ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications (ASME/IEEE MESA) held within the ASME International Design Engineering Technical Conferences / Computers and Information in Engineering Conferences (IDETC/CIE) mainly organized by the ASME. IEEE is the non-financial cosponsor of the ASME/IEEE MESA Conference.

In even numbered years, the MESA Committee cosponsors the IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications (IEEE/ASME MESA) mainly organized by the IEEE. ASME is the non-financial cosponsor of the IEEE/ASME MESA Conference.

At the conference the MESA committee awards best papers in the categories:

- Best Paper in Theory
- Best Paper in Computational Methods and Software
- Best Paper in Applications
- Best Student Papers

In 2010 MESA10 is held in Qingdao, Shandong, China (<http://www.asmemesa.org>).

A total of 167 abstracts and 108 draft papers have been submitted, with 106 accepted for publication in the Proceedings. The conference is organized into 17 symposia.

3. Major Activities of the Technical Committee

The committee organized the 2009 ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications (MESA09) in San Diego – California.

4. New Directions and Planned Changes for 2011

In 2011 the committee will organize the 2011 ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications within the ASME 2010 IDETC/CIE in Washington DC, USA.

The committee will also try to establish closer collaboration with the IEEE Intelligent Transportation Systems Society. In this regard, the MESA committee will also try to nominate Associate Editors for the:

- ASME Journal of Mechanisms and Robotics
- IEEE Transactions on Intelligent Transportation Systems

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*****
Prof. Primo Zingaretti
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*****
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To: The ASME Design Engineering Division (DED) General Committee

From: Gloria Wiens, Chair, Micro- and Nanosystems Committee

Date: August 4, 2010

Subject: MNS committee report for the period July 1, 2009-June 30, 2010

Mission

The mission of the Micro- and Nanosystems (MNS) Committee is to promote research and development activities related to advancement of microsystems and nanotechnology within the broad scope of the design engineering field.

Committee Membership, Meetings and By-Laws

The committee is currently comprised of twenty elected members including three officers: the Chair, the Vice Chair and treasurer, and the secretary. The committee held its fourth meeting on September 1, 2009 in San Diego, CA at the IDETC 2009. The committee operates according to a set of by-laws, which was formally adopted in October 2006 and revised in February 2009. Several members have rotated out and several new members have joined, where the membership rotation cycle has now reached a steady-state. The interest in the committee and its activities is continuing to grow as evidenced by the solid conference response, good attendance at its annual meetings and the slate of nominees for new membership was 12 for the 4 openings. In June 2010, based on email votes, the committee moved to appoint Gloria Wiens, Edward Berger and S.V. Sreenivasan as chair, vice-chair/treasurer, and secretary respectively effective July 1, 2010. Edward Berger and S.V. Sreenivasan also serve as the General and program chair for the fourth MNS conference. The Past Chair is Arvind Raman. The committee meets annually at the IDETC meetings and conducts teleconferences at last once a year. In the following a brief summary of the achievements of the MNS committee is provided.

Committee Activities

- **Establishment of sub-committees**

The Micro/Nano-Scale Systems (MNS) Technical Committee has three sub-committees and has established two new ad-hoc committees.

- 1) Honors and Awards Sub-Committee – Chair: *Jim Allen*, Members: *Edward Berger and G.K. Ananthasuresh*. Activity: Reviews best paper nominations and selects award recipient(s).
- 2) Public Relations and Communications Sub-Committee – Chair: *Brian Jensen*, Members: TBD. Activity: Has created the first generation of a MNS website, under review for implementation.
- 3) Technical Sub-Committees (*members*) – *micro/nano robotics and manipulation (Metin Sitti, Dan Popa)*; *nano-manufacturing and nano-metrology (SV Sreenivasan)*; *dynamics and controls (Anton Sumali)*; *micro/nano actuators (I.Y. (Steve) Shen)*; *system and mechanical design (Martin Culpepper)*; *tribology and contact mechanics (Mircea Teodorescu and Yong Shi)*, and education (TBD). Activity: To promote subtopics and symposia for MNS conferences.
- 4) Journal Session Ad-Hoc Sub-Committee – Chair: *Edward Berger*, Members: *Buddy Clark, Martin Culpepper, Arvind Raman and Laxman Saggere*. Activity: Explore publication of MNS papers in a journal (special issue?).
- 5) Poster Session Ad-Hoc Sub-Committee – Chair: *Jeff Rhoads*, Members: *Matt Allen and Dan Popa*. Activity: Exploring alternate ways to organize the rapid-fire poster session/MNS reception to retain its current vitality and building upon its success.

- **MNS Liaisons**

MEMS Division Liaison (*Laxman Saggere*)

Nano Council and ASME/IEEE NEMB Liaison (*Laxman Saggere*)

- **3rd micro and nanosystems conference (2009)**

The 3rd micro and nanosystems conference (2009) Best Paper award was won by the Sandeep Krishnan, Christopher Pelzmann and Laxman Saggere (University of Illinois at Chicago) for their paper entitled "Design and Development Of A Chipscale Multifingered Micromanipulator System For Coordinated Microassembly".

The top 3 place winners of the 1st MNS MEMS/NEMS Best Photography Contest were awarded cash prizes generated from donations taken during the conference. Winners are as follows: first place – Quentin Aten, Brigham Young University, "MEMS Nanoinjector for Injecting Foreign DNA into Living Cells"; second place – Aditya N. Das and Rakesh Murthy, University of Texas, "Temple of Zeus – A Micro Replica"; and third place – David G. Smith, Brigham Young University, "Multi-Layer Means of Guiding a Large Displacement Microelectromechanical Systems". *Contest Organizer: Dave Cappelleri*

- **4th micro and nanosystems conference (2010)**

This conference follows the successful first three years at the IDETC'07 (Las Vegas), IDETC'08 (New York) and IDETC'09 (San Diego). Ed Berger and S.V. Sreenivasan are the conference and program chairs respectively. This year 61 papers have been accepted for technical presentation. The accepted papers have been grouped under 8 single-track and 4 parallel-track sessions (total of 16 sessions) with specific themes, with a special 'rapid-fire' poster session as well. The spectrum of themes covers application areas in applied mechanics and contact, biological applications, bio-MEMS, energy harvesting, micro/nano robotics, and nanomanufacturing.

This year, MNS is honored to have a keynote lecture by Prof. Harold Craighead, the Charles W. Lake, Jr. Professor of Applied and Engineering Physics, and Director of the Nanobiotechnology Center at Cornell. Prof. Craighead will present at the keynote session on Tuesday August 17th, 9-10.30 am. In addition, W. Arnold of Saarland University will present a mini-keynote address on Tuesday, August 17th at 11am. We also offer two panel sessions: (i) "Challenges and Opportunities--A Perspective from Industry and Government Labs" on Tuesday August 17th from 2.30-4, and (ii) "Emerging Challenges in Controlling Micro/Nanosystems" on Wednesday August 18th from 11-12.30. In addition, there will be a mini-keynote address on Tuesday August 17th at 11am. The annual MNS dinner will be jointly held with the Design Engineering Division on Tuesday at which time the 'MNS Best Paper' Award recipients will be announced and certificates of appreciation given to our new symposium organizers.

In addition to the traditional technical presentation format, the late Tuesday afternoon session is a continuation of our well-received 'rapid-fire' poster session. This year 10-12 authors will be given a second opportunity to highlight their paper's contributions and engage in dialogue at their posters with other MNS Conference participants. This special session will have the setting of a food-drink reception with an atmosphere for networking! We're also delighted to once again present the 2nd Annual MEMS/NEMS Photography Contest, showcasing interesting images of micro/nanoscale devices and systems.

The MNS Committee Meeting (open to all MNS Participants) will immediately follow the 'rapid-fire' poster session where a report on recent, current and future activities will be discussed. This

meeting provides a great opportunity for one wanting to get directly involved in forming the future of the MNS community.

Future activities

The MNS committee plans to build upon and expand on the success of the MNS conferences and will continue to hold it each year with the IDETC. The MNS conference chairs for the next two years have already been identified. The committee will focus on the following aspects in the coming year: (a) identifying and awarding the 1st MNS Innovator Award Recipient, (b) continue the expansion of industry and national laboratory involvement, (c) the possibility of inviting the stronger papers in the conference for dedicated issues in ASME journals, and (d) implementation of a website for archiving and disseminating MNS Committee activities.

Below is a complete list of members for the current term of July 1, 2010-June 30, 2011.

Executive Committee:

Chair: Gloria J. Wiens (member: 2005-2012)
Past Committee Chair: Arvind Raman (member: 2005-2011)
Vice-Chair/Treasurer: Edward Berger (member: 2005-2013)
Secretary: S.V. Sreenivasan (member: 2008-2014)

Elected General Members:

James Allen (*member: 2005-2010, second 3-year term, resigning effective August 17, 2010*)
G. K. Ananthasuresh (*member: 2005-2012, second 3-year term*)
Shaochen Chen (*member: 2005-2010, second 3-year term, resigning effective August 17, 2010*)
Martin Culpepper (*member: 2005-2012, second 3-year term*)
Chris Rahn (*member: 2005-2012, second 3-year term*)
I.Y. (Steve) Shen (*member: 2005-2012, second 3-year term*)
Metin Sitti (*member: 2005-2012, second 3-year term*)
K. "Subra" Subramanian (*member: 2008-2012, first 3-year term*)
Jeff Rhodes (*member: 2008-2012, first 3-year term*)
Brian Jensen (*member: 2008-2012, first 3-year term*)
Gou-Jen Wang (*member: 2008-2012, first 3-year term*)
Daniel G. Cole (*member: 2009-2013, first 3-year term*)
Dan Popa (*member: 2009-2013, first 3-year term*)
Mircea Teodorescu (*member: 2009-2013, first 3-year term*)
Yong Shi (*member: 2009-2013, first 3-year term*)

Elected General Members: Terms ended June 30, 2010

Matt Allen (member: 2006-2010, first 3-year term)
Hartono (Anton) Sumali (member 2006-2010, first 3-year term)

2010 MNS Conference Committee

Conference Chair: Edward Berger
Program Chair: S.V. Sreenivasan

**Report on the
TECHNICAL COMMITTEE ON MULTIBODY SYSTEMS AND
NONLINEAR DYNAMICS (TC-MSND)
July 08, 2010**

Mission:

The mission of the Technical Committee on Multibody Systems and Nonlinear Dynamics (TC-MSND) is to promote research, application, and education in experimental, symbolic, computational, and analytical activities pertaining to multibody systems, nonlinear dynamics, control, and related technical areas. One of the main activities of the committee is to organize the Biennial International Conference on Multibody Systems, Nonlinear Dynamics and Control (ICMSNDC) in the odd year IDETC.

Recent Activities:

The committee held its first tele-conference on February 5, 2009, which was well attended by its members and friends, and another tele-conference is planned for August 2010. A conference coordination subcommittee has also been formed to prepare and plan for the 8th ICMSNDC to be organized in Washington, DC in August 2011, and this subcommittee has had two tele-conferences. This year, the TC-MSND is supporting the Technical Committee on Vibration and Sound (TCVS) in organizing the Special Conference on Mechanical Vibration and Noise as a part of the 2010 IDETC in Montréal, Canada, August 15–18, 2010. In addition, TC-MSND supports symposia and sessions at ASME IMECE and other international conferences. Recently, the TC-MSND supported the First Joint International Conference on Multibody System Dynamics held in Lappeenranta, Finland from May 25-27, 2010.

A new collaborative initiative between TC-MSND and TCVS aimed at the formal organization of a technological discipline known as Dynamics for Design has grown out of discussions amongst members of TC-MSND and TCVS, and a working group was formed. Recently, DED approved a proposal supported by this working group to organize Biennial International Conference on Dynamics for Design (DFD) at the even-year IDETC/CIE conferences, beginning in 2012.

Since Fall 2009, TC-MSND also revised its bylaws, established operating procedures for its subcommittees, and elected new members.

ASME Journal of Computational and Nonlinear Dynamics:

The broad range of interests of TC-MSND is also reflected in the *ASME Journal of Computational and Nonlinear Dynamics* that is closely affiliated with the committee. This journal has been doing well under the leadership of Professor Subhash Sinha of Auburn University.

TC-MSND Website: http://divisions.asme.org/DED/MULTIBODY_SYSTEMS_NONLINEAR.cfm

Information on TC-MSND officers follows:

TC-MSND Committee Officers

Chair

Professor Balakumar Balachandran
Department of Mechanical Engineering
University of Maryland
College Park, MD 20742-3035
PH: (301) 405-5309
FAX: (301)314-9477
Email: balab@umd.edu

Vice-Chair and Treasurer

Professor Olivier Bauchau
School of Aerospace Engineering
Georgia Institute of Technology
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PH: (404) 894-0042
FAX: (404) 894-2760
Email: Olivier.Bauchau@ae.gatech.edu

TC-MSND Recording Secretary

Professor Harry Dankowicz
Department of Mechanical Science and Engineering
University of Illinois at Urbana-Champaign
332C Mechanical Engineering Bldg, MC 244
1206 West Green Street
Urbana, IL 61801
PH: (217)244-1231
FAX: (217)244-6534
Email: danko@uiuc.edu

Prepared by

B. Balachandran
July 08, 2010

Committee Report

Power Transmission and Gearing Technical Committee

Committee Leadership:

Chair: Avinash Singh, Ph.D., General Motors Company, avinash.singh@gm.com (2009-2013)

Vice Chair: Timothy Krantz, Ph.D., NASA/Army, timothy.l.krantz@nasa.gov

Technical Conferences:

IDETC 2009, Power Transmission and Gearing Conference

Conference Chair: Ahmet Kahraman

Program Chair: Avinash Singh

IDETC 2011, International Power Transmission and Gearing Conference

Conference Chair: Avinash Singh

Program Chair: Tim Krantz

Major activities of the PTG technical committee during the past year:

The PTG Committee organizes a conference every two years, alternating between a large scale international conference and a smaller mostly domestic conference. The Committee successfully hosted its smaller conference as part of the 2009 IDETC/CIE in San Diego, CA. There were 35 papers presented in 8 single track sessions covering a diverse range of topics including design and analysis, dynamics and noise, tribology, strength and durability, and manufacturing of gears and power transmission components. Although this was our smaller "domestic" conference, authors from 13 countries presented their cutting edge research findings.

The conference also marked the completion of Dr. Kahraman's term as the Chair of the PTG Committee. The Committee thanks him for his leadership and tireless efforts on behalf of the committee during the past four years. During his tenure we organized two major conferences, updated our bylaws, and launched a new web site. Dr. Avinash Singh now serves as the Chair of the PTG Committee.

In Oct. 2009, the Committee sought nominations for a new Vice Chair. A vote was held and Dr. Timothy Krantz was elected to serve as the Vice-Chair. Currently, we are seeking nominations from interested professionals who wish to serve on the committee.

New directions and planned changes for the coming year:

The PTG Committee is currently planning our next International Power Transmission and Gearing Conference which will be held with the ASME 2011 IDETC/CIE in Washington, DC in August 2011.

Avinash Singh, PTG Committee Chair

Technical Committee on Vibration and Sound

Design Engineering Division
The American Society of Mechanical Engineers
http://divisions.asme.org/ded/Vibration_Sound.cfm



TO: DED Executive Committee

FROM: Brian F. Feeny, TCVS Chair (feeny@egr.msu.edu)

SUBJECT: Summary of TCVS activities during September 2009 to August 2010

DATE: July 17, 2010

- **Elections:** At our last meeting at UIC in Chicago, the committee voted on new officers and members.

Officers: Brian Feeny was elected as Chair, Steve Shen was elected as Vice Chair, and Dane Quinn was elected as Secretary.

Members: Tamas Kalmar-Nagy, Robert Parker, Gyorgy Szasz, Jiong Tang, Weidong Zhu and Jean Zu were re-elected for a second term. Hans DeSmidt, Huageng Luo, Michael Leamy, and Jeff Rhoads were elected as new members.

- **TCVS Treasurer's Report:** The Den Hartog award account had an expense of \$40,500 to raise it to the Society level, and now has a balance of just over \$11K. The Myklestad award account has a balance of around \$32K. The general TCVS fund has a balance of \$19K.
- **Awards:** The Den Hartog Award was granted to Earl Dowell, and the Myklestad award was granted to Subhash Sinha. The Den Hartog Award has since been elevated to a Society award. The awardee selection process will remain within the committee. The award will continue to be given biennially.
- **IDETC 2009:** Former TCVS Chair, George Flowers, and current TCVS member Dane Quinn were general co-chair and program co-chair for this conference, respectively. The vibration conference had about 175 papers presented. There was one keynote lecture, and one award lecture. TCVS successfully implemented its first student paper award competition, coordinated by Bogdan Epureanu.
- **IDETC 2010:** Dane Quinn is the conference chair for the Special Conference on Mechanical Vibration and Noise to be held at the IDETC in 2010 in Montreal. The organizing committee consists of Marco Amabili, Bala Balachandran, Harry Dankowicz, Al Ferri, Brian Mann, Nat Natarj, Chris Rahn, and Michael Starr. This is a limited, first time trial for TCVS at an even year IDETC. At our Fall 2009 meeting, TCVS voted to continue with an annual vibrations conference at IDETC. Dan Segalman is the keynote speaker.
- **IMECE 2010:** TCVS has no formal participation as a committee. However, TCVS members and former members have taken on organizational roles. Epureanu, Amabili, and Dumitru

Caruntu are organizing three symposia, and Albert Luo, Hamid Hamidzadeh, Liming Dai, and Weidong Zhu are organizing five symposia. Luo and Dai are organizing the Dynamic Systems and Control track.

- **IDETC 2011**: The conference will be held in Washington, D.C., August 28-31. TCVS member Nader Jalili is the general conference chair. The technical Program co-chairs are Olivier Bauchau and Epureanu. The Advisory Committee includes Flowers, H.S. Tzou, Hamidzadeh, Ahmed Shabana, and Subhash Sinha.
- **IDETC 2012**: The conference will span five days and be held in Chicago. Rob Parker will be the VIB conference chair.
- **Journal of Vibration and Acoustics**: Kon-Well Wang completed his service as Technical Editor, and Noel C. Perkins began his first term as Technical Editor in January, 2010. A special issue on “Vibration Energy Harvesting” is expected to appear within a year.
- **Dynamics for Design (DFD)**: A few members of TCVS and the *Multibody Systems and Nonlinear Dynamics Committee* (MSNDC) have joined forces to generate activities in dynamics under this title, building on common interests between TCVS and MSNDC. Both committees have approved of a joint TCVS/MSNDC account for DFD, a DFD website, and a biennial DFD conference cosponsored by TCVS and MSNDC, starting in IDETC 2012.
- **Interactions**: The TCVS interacts with a number of other committees and divisions, with liaisons to *Noise Control and Acoustics Division* (Steve Hambric), *Applied Mechanics Division – Dynamic Systems and Structures Committee* (Luo), *Applied Mechanics Review* (Chin An Tan), *Aerospace Division – Adaptive Structures Committee* (Wang), and *Dynamic Systems and Control Division* (Jalili). Within the *Design Engineering Division*, TCVS has liaisons with the *Power Transmission and Gearing Committee* (Parker), *International Activities Committee* (Liao), *Micro and Nano Systems Committee* (Mann), and *Multibody and Nonlinear Systems Committee* (Amit Shukla).

JMD 2010 ANNUAL REPORT

TO DESIGN ENGINEERING DIVISION EXECUTIVE COMMITTEE

Prepared by Panos Y. Papalambros, Technical Editor

July 18, 2010

1. Overview

The journal has had a good year continuing its evolution as a broad-based venue emphasizing design synthesis across all TCs of DED, and meeting the needs and expectations of the various DED communities.

The current definition of the JMD purpose and scope is as follows:

The ASME Journal of Mechanical Design (JMD) serves the broad design community as the venue for scholarly, archival research in all aspects of the design activity. JMD has traditionally served the ASME Design Engineering Division and its technical committees, but it welcomes contributions from all areas of design with emphasis on synthesis. Example topics include:

- *Design automation, including design representation, virtual reality, geometric design, design evaluation, design optimization, risk and reliability-based optimization, design sensitivity analysis, system design integration, ergonomic and aesthetic considerations, and design for market systems*
- *Design of direct contact systems, including cams, gears and power transmission systems*
- *Design education*
- *Design of energy, fluid, and power handling systems*
- *Design innovation and devices, including design of smart products and materials*
- *Design for manufacturing and the life cycle, including design for the environment, DFX, and sustainable design*
- *Design of mechanisms and robotic systems, including design of macro-, micro- and nano-scaled mechanical systems, machine component, and machine system design*
- *Design theory and methodology, including creativity in design, decision analysis, design cognition, and design synthesis.*

The connecting thread among all these topics is the emphasis on design, rather than just analysis. Design scholarship is based on careful analysis models, whether physical, computational, or behavioral, and has design intent: creating something in the physical world we live in, rather than just analyzing what is happening in it.

2. Journal Statistics

For years 2009 and 2010 (July) Journal statistics are shown in Figures 1 and 2, respectively. Cumulative data for the years included in the online Journal Tool are shown in Figure 3. Review process data are shown in Table 1.

Table 1. Review process data

Year	Average Days			Average Months	
	Assigned to AE	TE Decision	TE Approval	Draft to TE Decision	Draft to FM Approval
2009	11	3	10	4.187	7.231
2010 (July)	6	3	5	1.748	1.974
All Years	13	3	12	5.358	8.197

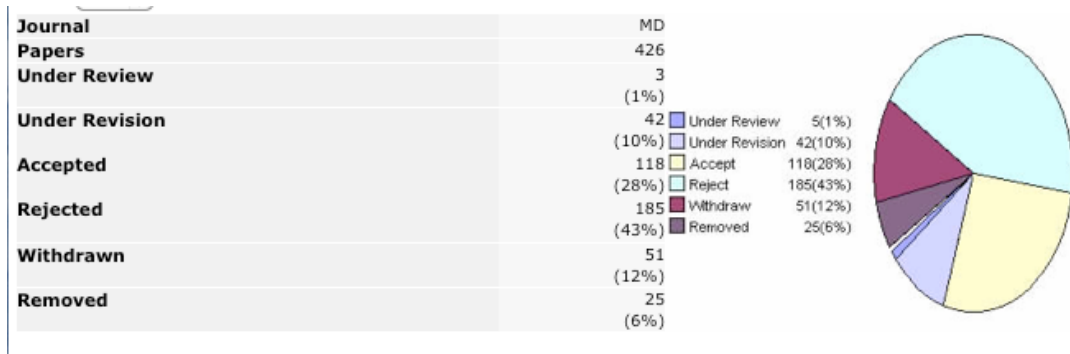


Figure 1. JMD statistics for 2009

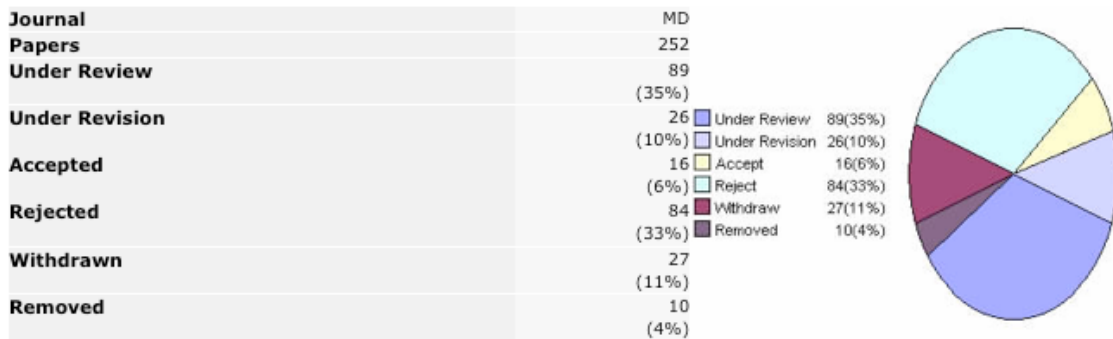


Figure 2. JMD statistics for 2009 (Jan-July)

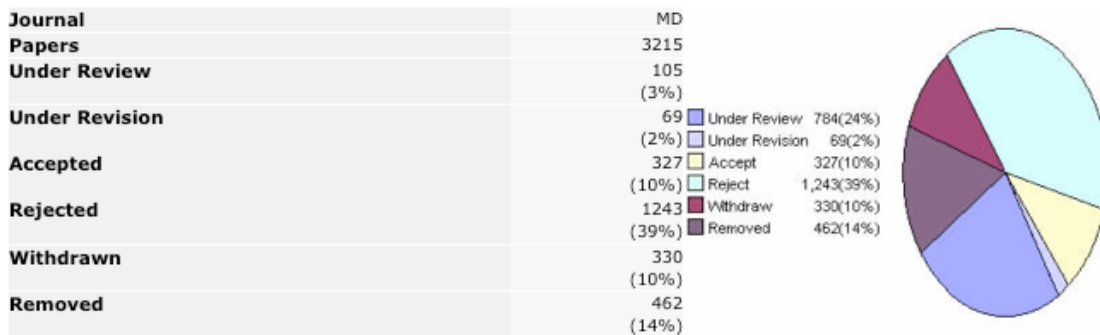


Figure 3. JMD cumulative statistics for 2002-2010 (July)

The production schedule for 2009 and 2010 is monthly with 1400 pages allocated. A special issue with 11 papers appeared in September 2009 on Design of Smart Materials and Systems with Mary Frecker (Penn State) and Nancy Johnson (GM R&D) as guest editors. This area was targeted for growth in the journal and papers are now being submitted on a regular basis.. A special issue on Sustainable Design with 14 papers and Karthik Ramani, Steven Skerlos and Alex Slocum as guest editors will appear in September 2010. This is another targeted area of growth for JMD.

Production backlog for Final Manuscripts as of July 18, 2010 is as follows.

- Submitted Awaiting Editor Approval (Current Count: 9)
- Approved Awaiting 1903 Form (Current Count: 1)
- Approved Ready for Composition (Current Count: 3)
- Approved Staff Downloaded MS Files (Current Count: 0)
- Staff Verified (Current Count: 165)
- Files in Production (Current Count: 143)

Issue assignments for 2010 are shown in Table 2

Table 2. Issue assignments for 2010

Year	Papers + Technical Briefs+ Design Innovation												Total
2010	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
	10+3	10+3	8+5	11+1	9+2	8+3+1	12+0+0	14+1	13+2	8+1	9+2	10+2	148
								est.	est.	est.	est.	est.	est.

3. Status of Associate Editors

List of AEs and their status is shown in Table 3.

Table 3. Associate editor list and status (Masthead list July 2010)

Design Automation

D. GORSICH (2012)
M. KOKKOLARAS (2012)
Z.P. MOURELATOS (2009)
K. RAMANI (2011)
T. SIMPSON (2009)
B. YANNOU (2012)

Design Education

JANIS TERPENNY (2011)

Design Innovation and Devices

D. BREI (2011)
M.I. FRECKER (2011)
A. SLOCUM (2011)

Design for Manufacturing

J.W. HERMANN (2009)

Design of Mechanisms and Robotic Systems

T.R. CHASE (2011)
A. GHOSAL (2009)
P.M. LAROCHELLE (2011)
JAMES SCHMIEDELER (2011)
J.M. RICO (2009)
K.-L. TING (2011)
H.-S. YAN (2010)

Design Theory and Methodology

J.K. ALLEN (2009)
J. CAGAN (2011)
J.K. GERSHENSON (2009)
Y. JIN (2011)

Power Transmission and Gearing

A. SINGH (2010)
P. VELEX (2011)

Two re-appointment and two new associate editor nominations have been submitted. One AE has retired and one has been on a one-year inactive status due to other ASME duties. Total number of AEs at steady state is targeted at 25, with continuing emphasis on international and some industry representation and in cross-disciplinary areas. The latter implies that there is no one-on-one correspondence between AEs and TCs. Recognition plaques are mailed to each 'graduating' AE.

4. Journal Quality

Targeted time for review completion is less than 6 months with less than 4 months wait time for appearance after that.

Impact factors are reported as:

2002: 0.268, 12th out of 18 ASME journals
2003: 0.354, 15th out of 18 ASME journals
2004: 0.461, 10th out of 18 ASME journals
2005: 1.245, 2nd out of 18 ASME journals
2006: 1.252, 2nd out of 18 ASME journals
2007: 1.103, 3^d out of 18 ASME journals
2008: 1.532, 2^d out of 18 ASME journals
2009: 0.869, 6th out of 24 ASME journals 1.518 5-year cum., 2nd out of 24)

As expected, the drop in the impact factor is likely a result of papers from the M&R community moving to JMR and of introducing new areas of emphasis with no history of JMD presence.

Respectfully submitted,

Panos Y. Papalambros
July 18, 2010



ASME Journal of Vibration and Acoustics
Report to DED/TCVS
April 2010

Noel Perkins
Editor
nep@umich.edu

Kim Conklin
Assistant
JVA.kkeifer@umich.edu

The Journal of Vibration and Acoustics (JVA) is a major forum for the communication of original research results of permanent interest in all areas of vibration and acoustics. Papers published by the journal are full-length articles of considerable depth. The journal also publishes Technical Briefs, which are intended for the rapid communication of recent developments in an abridged form. Examples of specific topic areas covered include, but are not limited to, vibration of continuous and lumped parameter systems; linear and non-linear vibrations; random vibration; modal analysis; mechanical signature analysis; structural dynamics and control; vibration suppression; vibration isolation; passive and active damping; machinery dynamics; rotor dynamics and vibration; acoustic emission; noise control; machinery noise; structural acoustics; fluid-structure interaction; aeroelasticity; and flow induced noise and vibration.

Relative to 2009, the number of Associate Editors (AEs) is the same and this number (21) also reflects an overall increase that began several years ago. This change was in response to the sustained increase in submitted papers as can be seen in the data below. During 2010, the following five AE's will complete their second (final) three-year term: William Clark (Univ. Pittsburgh), Karl Grosh (Univ. Michigan), Sotirios Natsiavas (Aristotle Univ.), Robert Parker (Ohio State Univ.), and D. Dane Quinn (Univ. Akron). Starting in 2010 (and late 2009), the following five AE's were nominated, approved and appointed to their first three-year term: Philip Bayly (Washington Univ.), Liang-Wu Cai (Kansas State Univ.), Yukio Ishida (Nagoya Univ.), Wei-Hsin Liao (The Chinese Univ. of Hong Kong), and Ranjan Mukherjee (Michigan State Univ.).

Starting in 2010, JVA initiated a future special issue on the theme of "Vibration Energy Harvesting" as organized by William Clark (AE), D. Dane Quinn (AE) and Mohammed Daqaq (serving as a Guest Associate Editor for 2010.) Fourteen papers have been received for consideration in this special issue and their review is now underway.

The Journal continues to experience an increasing number of paper submissions as reported in the following data. In particular, over the past six years, the number of submitted papers has nearly tripled from 112 papers in 2003 to 312 in 2009. During the first quarter of 2010, we received 91 submissions suggesting perhaps another record number for this calendar year. In response to this trend, the number of pages allocated to the journal was increased to 800 pages per year in 2006.

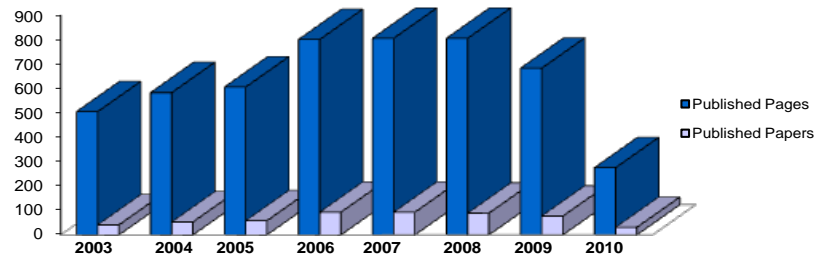
Since 2006, we adopted a practice that might help elevate the Journal's impact factor (currently 0.73). When a paper is accepted for publication, the Editor provides the authors with a list of recent (last 2 years) and relevant JVA publications for their reference and possible citation. We emphasize that our intention is only to provide new information that might not have been available when the authors first submitted their manuscript. It remains the authors' decision whether they use this information or not.

Associate Editors and Areas of Expertise

Name	Institution	Term 1 End Date	Term 2 End Date	Area of Research
Philip Bayly	Washington University – St. Louis	12/31/2012		Nonlinear dynamics, structural dynamics, machine dynamics
Michael Brennan	University of Southampton, UK	12/31/2009	12/31/2012	Vibration and noise control, smart structures
Liang-Wu Cai	Kansas State University	12/31/2012		Acoustics, wave propagation, structural dynamics
William Clark	University of Pittsburgh	12/31/2006	12/31/2010	Vibration control, smart structures, sensors & actuators
Bogdan Epureanu	University of Michigan	12/31/2010		Fluid structure interactions, nonlinear vibrations, structural health monitoring
Brian Feeny	Michigan State University	12/31/2008	12/31/2011	Structural vibration, system identification, and friction dynamics
Jean-Claude Golinval	University of Liege, Belgium	12/31/2007	12/31/2010	Modal analysis, testing, finite element updates
Karl Grosh	University of Michigan	12/31/2006	07/01/2010	Structural acoustics, bioacoustics, MEMS
Stephen Hambric	The Penn State University	6/15/2008	6/15/2011	Structural acoustics, computational methods
Yukio Ishida	Nagoya University	12/31/2012		Rotor dynamics, nonlinear dynamics
Wei-Hsin Liao	The Chinese University of Hong Kong	9/30/2012		Smart materials and structures, vibration control, energy harvesting, and mechatronics
Ranjan Mukherjee	Michigan State University	12/31/2012		Vibration control, rigid and multi-body systems
Sotirios Natsiavas	Aristotle University, Greece	12/31/2006	07/01/2010	Nonlinear & multi-body systems, system identification
Alan Palazzolo	Texas A&M University	12/31/2010		Rotor dynamics, active bearings and rotor controls
Robert Parker	Ohio State University	12/31/2005	03/01/2010	Gyroscopic systems, gear and transmission dynamics
D. Dane Quinn	The University of Akron	12/31/2005	12/31/2010	Nonlinear dynamics, resonance capture, robust control
Christopher Rahn	The Penn State University	12/31/2008	12/31/2011	Active vibration control, continuous structures, MEMS, mechatronics
Thomas J. Royston	University Illinois Chicago	08/31/2011		Acoustic and vibration for bio-medical applications.
Massimo Russene	Georgia Tech	12/31/2010		Structural dynamics and mechanics, fluid-structure interactions
Steven W. Shaw	Michigan State University	12/31/2010		Nonlinear vibration, MEMS dynamics
I.Y. (Steve) Shen	University of Washington	6/15/2008	6/15/2011	Rotating systems, damping, MEMS, smart structures
Cheng-Kuo Sung	National Tsing Hua University, Taiwan	11/30/2009	6/1/2012	Machine dynamics, smart structures, precision machine design
Jiong Tang	University of Connecticut	12/31/2011		Structural and system dynamics, vibration analysis, control, sensing and monitoring, smart materials and mechatronics.
Jeffrey Viperman	University of Pittsburgh	11/30/2009	6/1/2012	Active noise and vibration control, smart materials and structures
Weidong Zhu	University of Maryland, Baltimore County	5/31/2010		Structural dynamics and vibration, vibration based damage detection
Jean Zu	University of Toronto, Canada	12/31/2009	12/31/2012	Machine dynamics, nonlinear vibrations

Summary of papers published in issues from January 1, 2003 through April 5, 2010

	2003	2004	2005	2006	2007	2008	2009	2010
Num. of Pages Published	506	584	607	802	807	807	684	276
Num. of Papers Published	41	53	58	93	93	89	77	31



Distributions of papers submitted each year (January 1, 2003 – April 5, 2010)*

	2003	2004	2005	2006	2007	2008	2009	2010
Submitted Papers	112	193	215	265	241	237	312	91
Accepted Papers	53	75	80	102	88	65	54	0
Rejected Papers	42	76	95	112	96	118	107	15
Withdrawn Papers	6	26	25	29	34	32	34	13
Removed Papers	11	16	15	18	13	7	7	0

* Note: These numbers are downloaded from the ASME web tool, which reflect the distributions of the papers *submitted* that year, but not the actual “activities” that year. The actual activities should include actions on papers submitted in prior years as well.

*Percentages of distributions of papers submitted each year**
(January 1, 2003 – March 29, 2010)*

	2003	2004	2005	2006	2007	2008	2009	2010
% Papers Accepted/Published	47%	39%	38%	38%	36%	25%	17%	0%
% Papers Rejected	38%	39%	44%	42%	40%	47%	34%	16%
% Papers Withdrawn	5%	13%	12%	11%	14%	13%	11%	14%

□



** Note: These percentages are calculated based on numbers in the previous table summarizing distributions of papers submitted each year.

**ASME Journal of Computational and Nonlinear Dynamics
Report to DED Executive Committee/MSND**

July 2010

(Editor: Subhash C. Sinha, Auburn University)

Special Projects: Special Issue (July 2010): computational multibody dynamics
(Edited by Dan Negrut & Olivier Bauchau)

Current Status: For the first time JCND has been included in the 2009 Journal Citation Reports (JCR). The 'Impact Factor' is reported as 0.557! The relevant documentation is attached.

Competition:

1. *Nonlinear Dynamics*, Springer Publication
2. *International Journal of Nonlinear Mechanics*, Elsevier Publication,
3. *Communications in Nonlinear Science and Numerical Simulation*, Elsevier Publication

Associate/Guest Editors and Area of Expertise

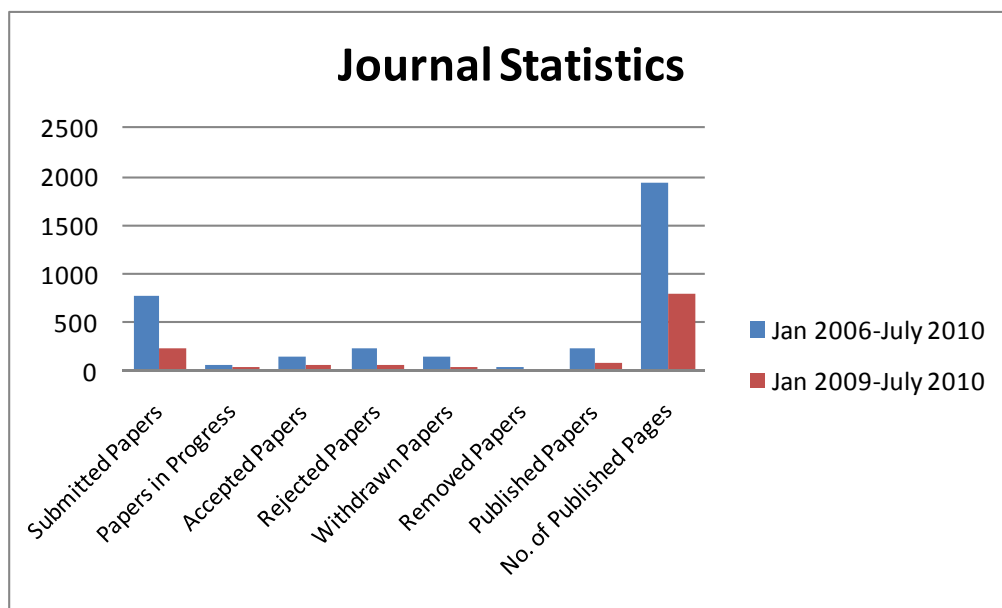
Name	Institution	Term End Date	Area of Research
Om Prakash Agrawal	Southern Illinois University	01 Jul 2011	Fractional Derivatives and their Applications, Rigid and Flexible Multibody Dynamics
Dr. Kurt S. Anderson	Rensselaer Polytechnic Institute	01 Jul 2011	Multibody Systems Dynamics, Computational Methods, Advanced Computation
Bala Balachandran	University of Maryland	01 Jul 2011	Nonlinear Dynamics- Analytical Methods, Experiments, Impacts, Control of Bifurcations, Applications in Manufacturing
Olivier A. Bauchau	Georgia Institute of Technology	01 Jul 2011	Flexible and Multibody Systems
Alain Berlioz	University of TOULOUSE, France	01 Jul 2011	Design, Experiments in Nonlinear And Dynamics, Control of Structures and Multibody Systems
Harry Dankowicz	University of Illinois at Urbana-Champaign	01 Jul 2011	Nonlinear Dynamics, Nonsmooth Dynamics Systems, Control, Multibody Systems Dynamics
Al Ferri	Georgia Institute of Technology	01 Jul 2011	Frictional, Discontinuous, Nonlinear dynamical systems
Henryk Flashner	University of Southern California	15 Jan 2011	Nonlinear Bifurcation, Linear & Nonlinear Control of Time Varying Systems

Claude-Henri Lamarque	Ecole Nationale des Travaux Publics de l'Etat, France	01 July 2015	Nonlinear dynamics, chaos, non Smooth systems, nonlinear Vibrations, Dynamics of Structures And shells
Hamid M. Lankarani	Wichita State University	01 Jul 2011	Multibody Dynamics, Impact Dynamics, Crashworthiness, Biomechanics
Albert C.J. Luo	Southern Illinois University at Edwardsville	01 July 2015	Nonlinear and Dynamics, Nonlinear Continuum Mechanics And Damage Mechanics
J. A. Tenreiro Machado	Institute of Engineering of Porto, Portugal	01 Jul 2011	Fractional calculus, Robotics, Control
John J. McPhee	University of Waterloo, Canada	01 Jul 2011	Multibody Dynamics and Graph Theory, Vehicle Dynamics, Biomechanics, Contact, and Friction
Aki Mikkola	Lappeenranta University of Technology, Finland	01 July 2015	simulation of machine systems, Flexible Multibody Dynamics, Nonlinear FE formulations
Dan Negrut (Guest Editor)	University of Wisconsin-Madison	01 Feb 2010	Multibody Dynamics
Christophe Pierre	McGill University, Canada	01 Jul 2011	Nonlinear Dynamics-Nonlinear Vibrations Coupled to Rigid-body Motion, Nonlinear Normal Modes, Localization, Applications to Nonlinear Structural and Mechanics Systems
Giuseppe Rega	University of Rome, Italy	01 Jul 2011	Nonlinear Dynamics, Computational Mechanics
Werner Schiehlen	University of Stuttgart	01 Jul 2011	Nonlinear Dynamics-Fundamental Problems, Analytical, and Numerical Methods
Ahmed A. Shabana	University of Illinois at Chicago	01 Jul 2011	Multibody Systems Dynamics, Finite Elements, Computational Mechanics
Professor Nobuyuki Shimizu	Iwaki Meisei University, Japan	01 July 2015	Multibody dynamics, fractional Differentiation, damping Technology, dynamics of soft Materials
Lawrie Virgin	Duke University	01 Jul 2011	Experimental Methods, Structural Vibrations, Stability

Summary of Activities

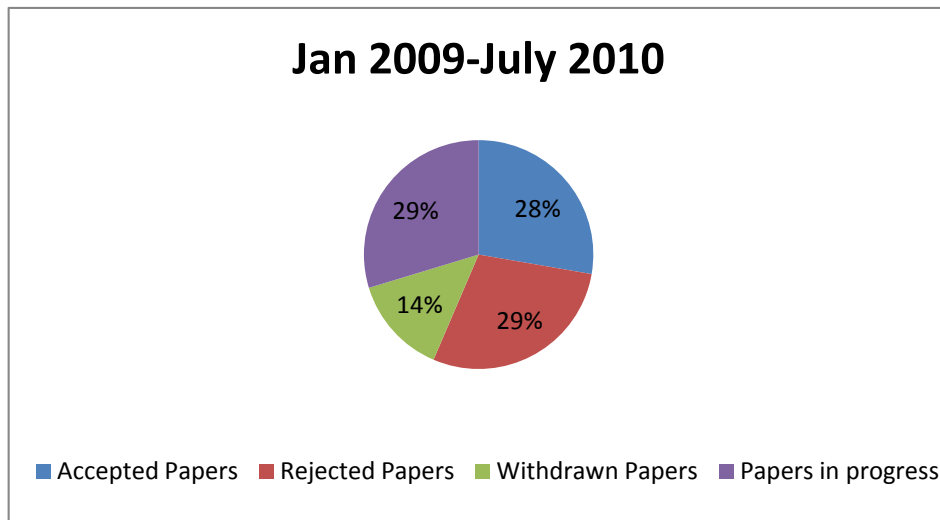
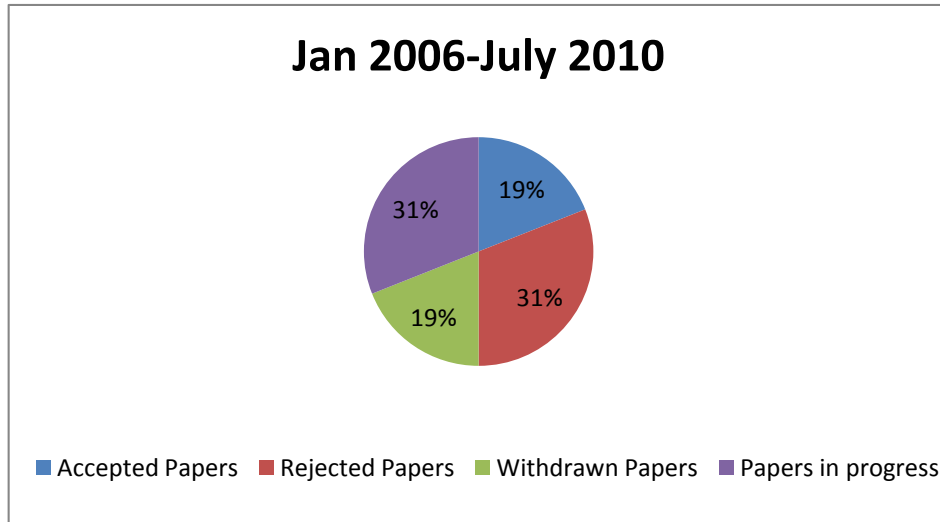
Journal Statistics:

	Jan 2006-July 2010	Jan 2009-July 2010
Submitted Papers	774	239
Papers in Progress	57	52
Accepted Papers	145	67
Rejected Papers	238	69
Withdrawn Papers	143	33
Removed Papers	50	18
Published Papers	229	88
Number of Published Pages	1940	796



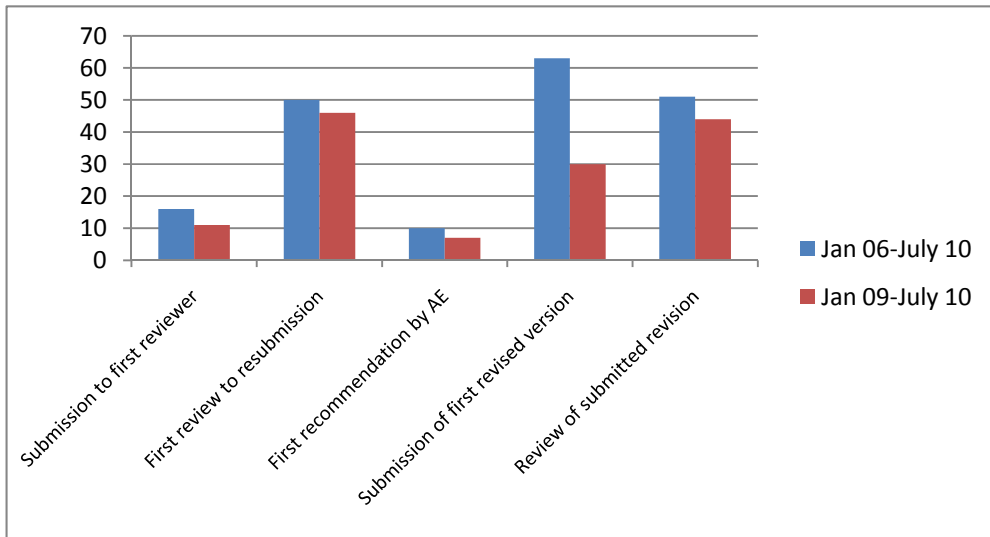
Percentages:

	Jan 2006-July 2010	Jan 2009-July 2010
% of Papers Accepted	19	28
% of Papers Rejected	31	29
% of Papers Withdrawn	19	14



***Review Timing
(Time in days)***

	Jan 06-July 10	Jan 09-July 10
Submission to first reviewer	16	11
First review to resubmission	50	46
First recommendation by AE	10	7
Submission of first revised version	63	30
Review of submitted revision	51	44



JCR Year and Edition: 2009 Science

Abbreviated Journal Title	ISSN	{2009} Total Cites	Impact Factor	5-Year Impact Factor	Immediacy Index	{2009} Articles	Cited Half-Life	Eigenfactor Score	Article Influence Score
PROG ENERG COMBUST	0360-1285	3135	11.024	12.44	1.619	21	9.2	0.0078	4.45
ADV APPL MECH	0065-2156	966	5.5	5.6	0	3	>10.0	0.00047	2.239
INT J PLASTICITY	0749-6419	4179	4.791	4.336	0.981	105	6.1	0.01468	1.554
P COMBUST INST	1540-7489	6763	3.256	3.51	0.768	379	7.8	0.01829	1.232
IEEE-ASME T MECH	1083-4435	1907	2.331	2.415	0.222	72	6.1	0.00495	0.623
MECH SYST SIGNAL PR	0888-3270	2766	2.075	2.472	0.365	189	5.3	0.00928	0.742
INT J MACH TOOL MANU	0890-6955	5189	1.956	2.254	0.239	142	6.7	0.01298	0.631
INT J HEAT MASS TRAN	0017-9310	18177	1.947	2.378	0.329	633	9	0.04057	0.783
APPL THERM ENG	1359-4311	4490	1.922	2.009	0.295	451	4.7	0.01649	0.609
J MICROELECTROMECH S	1057-7157	4714	1.922	2.79	0.234	145	6.4	0.0171	1.074
NANOSC MICROSC THERM	1556-7265	112	1.9	1.53	0.312	16	2.4	0.00091	0.661
EXP FLUIDS	0723-4864	4082	1.817	2.008	0.247	162	7.2	0.01601	0.913
WEAR	0043-1648	12858	1.771	2.073	0.228	460	9.5	0.02438	0.67
INT J THERM SCI	1290-0729	1899	1.77	2.014	0.299	241	4.5	0.00979	0.745
TRIBOL INT	0301-679X	3247	1.69	2.08	0.269	219	5.9	0.01152	0.726
TRIBOL LETT	1023-8883	1857	1.664	1.779	0.176	102	5.1	0.00877	0.654
NONLINEAR DYNAM	0924-090X	2195	1.658	1.784	0.174	172	6.1	0.00817	0.66
INT J FATIGUE	0142-1123	3765	1.602	1.782	0.257	222	6.4	0.01348	0.692
INT J REFRIG	0140-7007	2803	1.537	1.915	0.22	191	6.5	0.00819	0.596
INT J HEAT FLUID FL	0142-727X	2594	1.498	1.976	0.073	110	7.3	0.00974	0.876
J HYDRAUL ENG-ASCE	0733-9429	5878	1.478	1.889	0.132	106	>10.0	0.00953	0.651

J SOUND VIB	0022-460X	16255	1.414	1.679	0.258	613	9.2	0.03875	0.597
MECH MACH THEORY	0094-114X	2786	1.407	1.932	0.255	165	8.6	0.00481	0.488
WIND ENERGY	1095-4244	436	1.342	1.682	0.133	45	4.6	0.00229	0.645
INT J IMPACT ENG	0734-743X	2604	1.301	1.697	0.594	133	7	0.0085	0.65
INT J MECH SCI	0020-7403	3668	1.288	1.544	0.176	85	9.4	0.00901	0.727
INT J PRES VES PIP	0308-0161	1628	1.256	1.305	0.27	89	7.8	0.00429	0.444
J FLUID STRUCT	0889-9746	1700	1.256	1.552	0.12	83	7.3	0.00623	0.743
EXP THERM FLUID SCI	0894-1777	2195	1.234	1.557	0.116	112	7.4	0.00732	0.622
HVAC&R RES	1078-9669	452	1.224	1.108	0.149	47	4.6	0.00184	0.38
PROBABILIST ENG MECH	0266-8920	1043	1.221	1.921	0.288	59	8	0.00439	1.038
INT J PRECIS ENG MAN	1229-8557	199	1.207		0.085	106	2.4	0.00059	
MECHATRONICS	0957-4158	1214	1.198	1.655	0.16	131	6.6	0.00311	0.472
SMART STRUCT SYST	1738-1584	126	1.064	0.992	0.068	44	2.3	0.00103	0.399
DRY TECHNOL	0737-3937	2369	1.048	1.226	0.134	157	6.8	0.00395	0.221
J ENG MECH-ASCE	0733-9399	5202	0.98	1.395	0.16	144	>10.0	0.01046	0.733
J HEAT TRANS-T ASME	0022-1481	5345	0.959	1.392	0.1	209	>10.0	0.0098	0.533
ENG FAIL ANAL	1350-6307	816	0.945	0.967	0.165	272	4.1	0.00368	0.323
INT J ENGINE RES	1468-0874	311	0.903		0.207	29	5.6	0.00119	
J VIB CONTROL	1077-5463	734	0.896	1	0.095	84	5.1	0.00313	0.35
J MECH DESIGN	1050-0472	2747	0.869	1.518	0.048	147	7.2	0.00615	0.399
ACTA MECH SINICA-PRC	0567-7718	485	0.865	0.876	0.082	97	4.4	0.00196	0.248
STRUCT INFRASTRUCT E	1573-2479	84	0.847	0.794	0.079	38		0.00061	0.286
HEAT TRANSFER ENG	0145-7632	804	0.841	1.091	0.193	114	5.1	0.00351	0.404
FATIGUE FRACT ENG M	8756-758X	1945	0.835	1.055	0.125	88	9.2	0.00575	0.56

J SOL ENERG-T ASME	0199-6231	874	0.826	1.022	0.015	68	6.7	0.00243	0.316
J ENG MATER-T ASME	0094-4289	1695	0.815	1.447	0.088	68	>10.0	0.0046	0.685
J ELECTRON PACKAGING	1043-7398	679	0.781	0.944	0.048	63	6.5	0.00234	0.345
P I MECH ENG G-J AER	0954-4100	277	0.773	0.72	0.02	99	2.9	0.00161	0.258
THEOR APPL FRACT MEC	0167-8442	679	0.771	1.017	0.104	48	7	0.00233	0.463
ATOMIZATION SPRAY	1044-5110	638	0.754	0.842	0.213	61	9.7	0.00147	0.399
J STRAIN ANAL ENG	0309-3247	798	0.748	0.754	0.172	58	10	0.00195	0.329
FLOW MEAS INSTRUM	0955-5986	426	0.721	0.763	0.167	30	7.5	0.00129	0.292
INT J STRUCT STAB DY	0219-4554	159	0.721		0.103	39	4	0.001	
J VIB ACOUST	1048-9002	1393	0.708	0.921	0.011	88	>10.0	0.00314	0.37
ENG COMPUT-GERMANY	0177-0667	396	0.704	1.021	0.294	34	7.7	0.00136	0.452
J TRIBOL-T ASME	0742-4787	1741	0.702	1.078	0.067	105	9.3	0.00409	0.365
J THERMOPHYS HEAT TR	0887-8722	1272	0.687	0.826	0.118	102	>10.0	0.00287	0.293
J POROUS MEDIA	1091-028X	278	0.684	0.64	0.167	90	4.2	0.00113	0.214
RAPID PROTOTYPING J	1355-2546	448	0.662	1.04	0.077	39	6.9	0.00096	0.262
VEHICLE SYST DYN	0042-3114	1242	0.659	0.893	0.197	71	8.5	0.00249	0.251
P I MECH ENG A-J POW	0957-6509	512	0.655	0.723	0.011	88	5.7	0.00184	0.236
J ENG GAS TURB POWER	0742-4795	1661	0.635	0.842	0.024	164	8.5	0.00394	0.301
P I MECH ENG J-J ENG	1350-6501	443	0.63	0.752	0.037	108	5.2	0.00219	0.309
J MANUF SCI E-T ASME	1087-1357	1397	0.599	1	0.019	107	6.9	0.00434	0.357
J SANDW STRUCT MATER	1099-6362	168	0.591	0.912	0.12	25	4.7	0.00097	0.413
J COMPUT NONLIN DYN	1555-1423	105	0.557		0.02	50	2.9	0.00076	
INT J CRASHWORTHINES	1358-8265	285	0.553	0.612	0.036	56	5.4	0.00098	0.163
J CHIN SOC MECH ENG	0257-9731	179	0.548		0.197	61	3.2	0.00022	

STROJ VESTN-J MECH E	0039-2480	125	0.533	0.31	0.051	78	2.5	0.0003	0.042
INT J AUTO TECH-KOR	1229-9138	252	0.517	0.541	0.011	90	3.6	0.00089	0.105
ARCH CIV MECH ENG	1644-9665	60	0.515		0.029	34		0.00049	
EXP TECHNIQUES	0732-8818	220	0.5	0.403	0.096	52	6.6	0.00081	0.179
EXP HEAT TRANSFER	0891-6152	264	0.488	0.657	0.05	20	>10.0	0.00049	0.237
INT J VEHICLE DES	0143-3369	534	0.48	0.532	0.176	51	7.7	0.00155	0.227
J FLUID ENG-T ASME	0098-2202	2380	0.452	0.784	0.083	145	9.7	0.00615	0.384
STRUCT ENG MECH	1225-4568	614	0.438	0.538	0.054	147	5.4	0.00308	0.235
P I MECH ENG F-J RAI	0954-4097	226	0.434	0.669	0.038	53	6	0.00091	0.263
MACH SCI TECHNOL	1091-0344	229	0.433	0.716	0	31	6.6	0.00089	0.302
P I MECH ENG E-J PRO	0954-4089	112	0.432	0.405	0.037	27	6.6	0.00037	0.14
P I MECH ENG C-J MEC	0954-4062	900	0.416	0.491	0.021	237	7.1	0.0028	0.169
P I MECH ENG B-J ENG	0954-4054	908	0.412	0.528	0.06	134	6.4	0.00283	0.179
P I MECH ENG D-J AUT	0954-4070	808	0.402	0.535	0.061	114	6.3	0.00286	0.193
FORSCH INGENIEURWES	0015-7899	116	0.391	0.314	0.043	23	9.3	0.00025	0.102
J TURBOMACH	0889-504X	1210	0.391	0.824	0	82	8.9	0.00263	0.299
J MECH SCI TECHNOL	1738-494X	369	0.374	0.33	0.06	384	2.5	0.00199	0.093
P I MECH ENG K-J MUL	1464-4193	103	0.37	0.447	0	25	4.5	0.00059	0.188
J VIBROENG	1392-8716	83	0.357		0.021	96		0.0001	
INT J OPTOMECHATRONI	1559-9612	17	0.354	0.354	0	20		0.0001	0.103
J PRESS VESS-T ASME	0094-9930	951	0.351	0.512	0.041	147	9.1	0.00152	0.154
TRIBOL T	1040-2004	1081	0.344	0.637	0.085	82	9.9	0.00178	0.239
J ENHANC HEAT TRANSF	1065-5131	226	0.314	0.445	0.12	25	8.8	0.00055	0.193
INT J OFFSHORE POLAR	0370-047X	213	0.291	0.436	0.146	41	6.6	0.00073	0.161

J OFFSHORE MECH ARCT	0892-7219	237	0.289	0.359	0.062	48	7.5	0.00079	0.172
MECH ENG	0025-6501	559	0.286	0.303		>10.0		0.00042	0.056
CHINA OCEAN ENG	0890-5487	245	0.26	0.423	0.077	65	5.6	0.00061	0.096
INT J HEAVY VEH SYST	1744-232X	51	0.222	0.457	0.08	25		0.00024	0.123
J ADV MECH DES SYST	1881-3054	37	0.21		0	36		0.00021	
ISI BILIM TEK DERG	1300-3615	7	0.208		0	24		0.00002	
T FAMENA	1333-1124	14	0.208		0.033	30		0.00008	
T CAN SOC MECH ENG	0315-8977	131	0.195	0.251	0	33	9.3	0.0003	0.068
SOUND VIB	1541-0161	127	0.189	0.264	0.048	21	9.5	0.00031	0.115
ASHRAE J	0001-2491	382	0.188	0.28	0.058	52	9.4	0.00078	0.089
LAT AM J SOLIDS STRU	1679-7817	29	0.188		0.125	16		0.0003	
IND LUBR TRIBOL	0036-8792	120	0.178	0.381	0.026	38	5.8	0.00038	0.109
J THERM SCI	1003-2169	97	0.165		0.053	57		0.00055	
J BRAZ SOC MECH SCI	1678-5878	178	0.121		0	33	6.1	0.00069	
J BALK TRIBOL ASSOC	1310-4772	26	0.103		0.033	61		0.00008	
BWK-ENERGIE-FACHMAG	1618-193X	99	0.099	0.096	0.09	67		0.00006	0.009
SHOCK VIB	1070-9622	240	0.095	0.383	0.095	42	8.7	0.00094	0.218
TRIBOL LUBR TECHNOL	1545-858X	39	0.069	0.076	0.026	78		0.00015	0.019
MEC IND	1296-2139	104	0.065		0	47	6.6	0.00034	
J JPN SOC TRIBOLOGIS	0915-1168	93	0.048	0.06	0	105		0.00036	0.029
STROJARSTVO	0562-1887	50	0.048	0.16	0.118	34		0.00009	0.031
PROF ENG	0953-6639	119	0.045	0.069	0	182	5.3	0.0006	0.027

ASME Journal of Medical Devices

Report to Publications Committee

July 18, 2010

Submitted by Editors:

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Special Projects

In order to stimulate authors to submit more papers to the journal, the 2010 Design of Medical Devices Conference expanded to two poster sessions. 84 abstracts were accepted after a peer reviewed process led by Just Herder. They will be published again in the journal with the best 3 papers being offered a two page paper in the journal (when peer reviewed). Also, free copies of the Journal were handed out again at the 2010 DMD conference. See <http://www.dmd.umn.edu/>

Current Status and Outlook

Fourteenth Issue nearly ready to be published.

Medline

May 2010-The Journal of Medical Devices was not selected for indexing. We received a score of 2.5 from the review committee. A score of 3.75 or greater is need for indexing. Little information is available with regards to criteria used for Medline decisions. We are currently strategizing the next step.

Competition

There are no direct competitors to JMED. Some of the clinical specific publications do report device development, but not in any detailed form.

Associate Editors and Areas of Expertise

**these AE's have been approved for re-appointments (2009-2012)*

Name	Institution	Term 1 End Date	Term 2 End Date	Area of Research
*Ted Conway	Virginia Commonwealth University	01 Jan 09	01 Jan 12	Rehabilitation Engr
Danny Bluestein	Stony Brook University	31 Dec 10	NA	Biofluid devices including cardiovascular devices, stints and valves.
Jaydev Desai	University of Maryland	31 Dec 10	NA	Soft-tissue modeling for surgical stimulation, haptic feedback interfaces, laparoscopic device

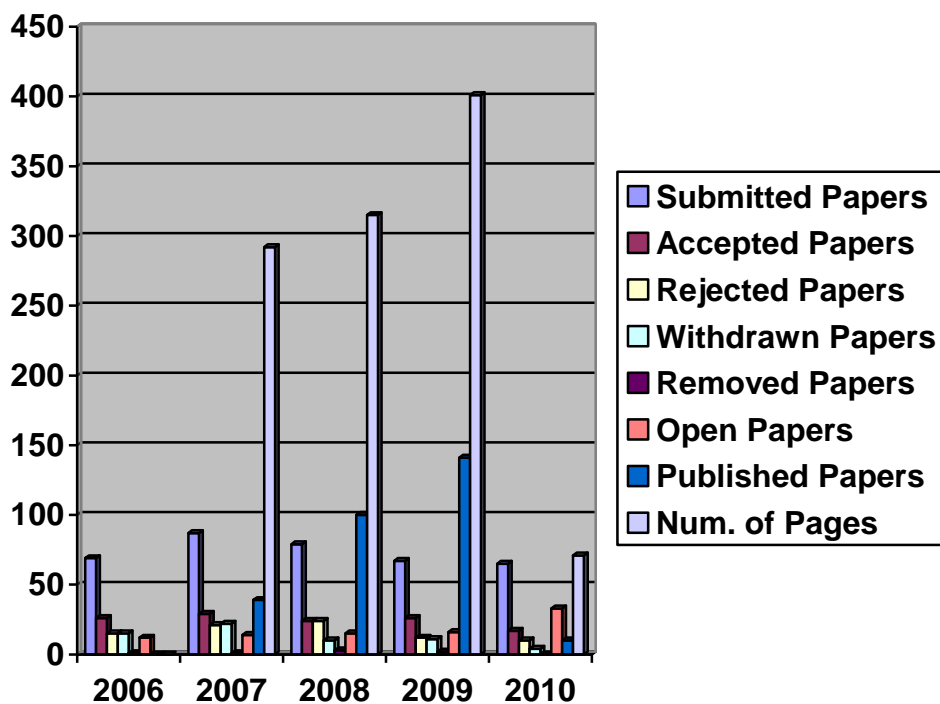
				<i>development for robot-assisted surgery and cell</i>
<i>Cheng Dong</i>	<i>The Pennsylvania State University</i>	<i>31 Dec 10</i>	<i>NA</i>	<i>Interface between devices and cells as well as fluid mechanics.</i>
<i>*Vijay Goel</i>	<i>University of Toledo</i>	<i>01 Jan 09</i>	<i>01 Jan 12</i>	<i>Spine mechanics</i>
<i>*Just Herder</i>	<i>Delft University of Technology</i>	<i>01 Jan 09</i>	<i>01 Jan 12</i>	<i>Mechanical design, mechanism synthesis, static balancing, dynamic balancing, compliant mechanisms, parallel mechanisms, kinematics, robotics, mechatronics, biomechanics, rehabilitation, prosthetics and orthotics, minimally invasive surgery, human-machine interaction</i>
<i>*Paul A. Iaizzo</i>	<i>University of Minnesota</i>	<i>01 Jan 09</i>	<i>01 Jan 12</i>	<i>Cardiovascular devices, Neurological devices, Minimally invasive devices, Human performance/force assessment, New medical sensors/actuators and Surgical Procedures</i>
<i>*Hamid M. Lankarani</i>	<i>Wichita State University</i>	<i>01 Jan 09</i>	<i>01 Jan 12</i>	<i>Crashworthiness, Occupant Protection of Transportation Systems, Biodynamics, Injury Biomechanics, Multibody Dynamics, Structures, Impact Dynamics</i>
<i>*M.Y. Lee</i>	<i>Chang Gung University</i>	<i>01 Jan 09</i>	<i>01 Jan 12</i>	<i>Technical aids and assistive devices for disabled;Barrier-free environmental adaptive systems;Computer aided surgical tools and navigation system;Computer-aided rehabilitation systems (diagnostic/ assessment/ training);Automatic caring facilities for hospital (such as automatic patient bed, patient transfer systems);Reverse engineering and rapid prototyping in medical applications (such as computer assisted implant design and manufacturing, design of new RP machine for medicine);Medical robots and medical mechatronics systems;Creative design for medical devices;e-learning and training on medical mechatronics;Student hands-on</i>

				<i>project and problem-based learning in the design of medical devices</i>
<i>*James Moore</i>	<i>Texas A & M University</i>	<i>01 Jan 09</i>	<i>01 Jan 12</i>	<i>Biofluid mechanics</i>
<i>*Jahangir Rastegar</i>	<i>SUNSYB</i>	<i>01 Jan 09</i>	<i>01 Jan 12</i>	<i>Surgical automation and robotics, design of novel medical devices, novel sport safety and accident prevention equipment and devices, heart-assist and circulation-assist devices, development of assist devices for rehabilitation and for the aged</i>
<i>*Erol Sancaktar</i>	<i>University of Akron</i>	<i>01 Jan 09</i>	<i>01 Jan 12</i>	<i>Research interests include mechanical behavior of adhesives, polymers, composites; materials characterization; viscoelasticity; fracture mechanics; experimental and theoretical solid mechanics; design and manufacture with novel materials</i>
<i>*Foster B. Stulen</i>	<i>Ethicon Endo-Surgery</i>	<i>01 Jan 09</i>	<i>01 Jan 12</i>	<i>Ultrasonics, Medical instrumentation, Endoscopic/Laparoscopic devices, Medical device design processes, Medical device manufacturing, Human factors in medical devices</i>

Summary of Activity

	2006	2007	2008	2009	2010*
Total Submitted Papers	69	87	79	67	65
Accepted Papers	26	29	24	26	17
Rejected Papers	15	21	24	12	10
Withdrawn Papers	15	22	10	11	4
Removed Papers	1	1	3	2	0
Open Papers	12	14	15	16	33
Published Papers	0	39	100±	141+	10
Num. of Pages	0	292	315±	401+	71

*Data for March Issue Only-No data for June Issue available as of 7/18/10
 +Includes Abstracts from the 2009 Design of Medical Devices Conference=101 total
 ±Includes Abstracts from the 2008 Design of Medical Devices Conference=63 total

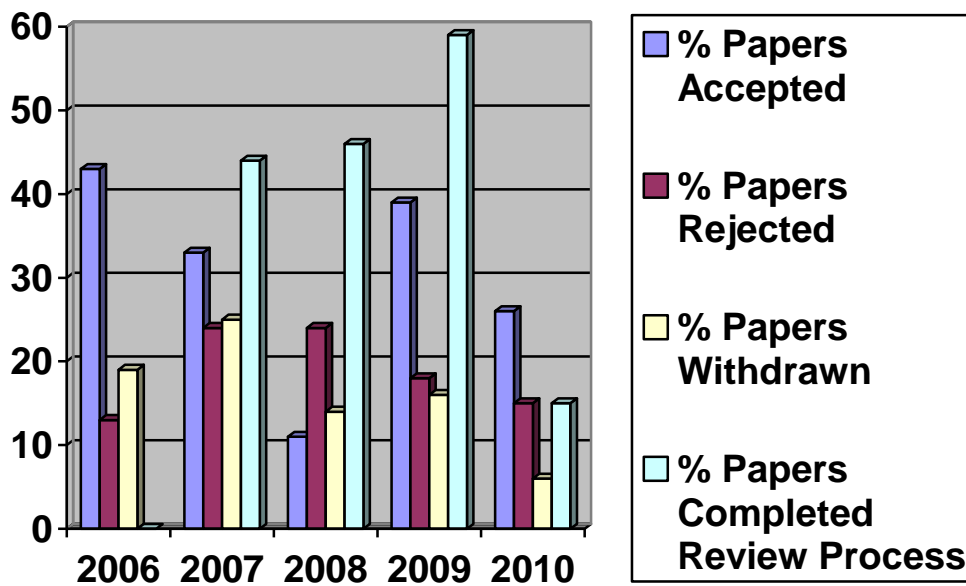


Percentages

	2006	2007	2008	2009	2010*
% Papers Accepted (Accepted Papers ÷ Total Submitted Papers)	37%	33%	30%	39%	26%
% Papers Rejected (Rejected Papers ÷ Total Submitted Papers)	21%	24%	30%	18%	15%
% Papers Withdrawn (Withdrawn Papers ÷ Total Submitted Papers)	21%	25%	12%	16%	6%
% of Papers Completed Review Process (Total Published Papers ÷ Total Submitted Papers)	NA	44%	†46%	†59%	15%

**Data for March Issue Only-No data for June Issue available as of 7/18/10*

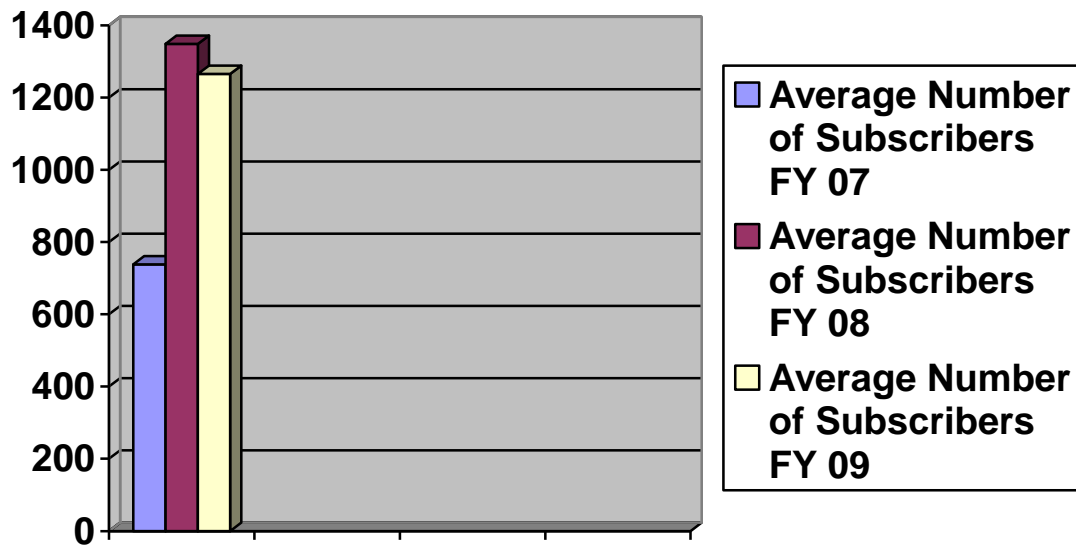
†Does not include DMD Conference Abstracts



Journal of Medical Devices Subscription Copies

Average Number of Subscribers

Average Number of Subscribers FY 07	738
Average Number of Subscribers FY 08	1348
Average Number of Subscribers FY 09	1265



Journal of Medical Devices

Published Quarterly by ASME

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Measurement and Optimization of Minimally Invasive Intervention Device Design Fitness Using a Multiobjective Weighted Isotropy Index

Frank L. Hammond, III, Kenji Shimada, and Marco A. Zenati

An Active Foot-Ankle Prosthesis With Biomechanical Energy Regeneration

Joseph K. Hitt, Thomas G. Sugar, Matthew Holgate, and Ryan Bellman

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Enabling Technology for Microvascular Stenting in Ophthalmic Surgery

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RFID Pharmaceutical Tracking: From Manufacturer Through In Vivo Drug Delivery

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A Novel In Vivo Joint Loading System to Investigate the Effect of Daily Mechanical Load on a Healing Anterior Cruciate Ligament Reconstruction

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A Sensorized Instrument for Skills Assessment and Training in Minimally Invasive Surgery

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Design and Usability of a Home Telerehabilitation System to Train Hand Recovery Following Stroke

William K. Durfee, Samantha A. Weinstein, Ela Bhatt, Ashima Nagpal, and James R. Carey

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Numerical Investigation of Coil Configurations That Provide Ultrahigh Packing Density of Saccular Aneurysms

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ERRATA

Erratum: "The Neural Nanoprobe: Physically Decoupling the Neural Recording Site From the Headstage" [Journal of Medical Devices, 2009, 3(2), p. 027524]

K. M. Al-Ashmouny, C. Boldt, J. E. Ferguson, A. G. Erdman, A. D. Redish, and E. Yoon

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- Real-Time Drug Release Imaging From Nanocomposite Drug and Polymer Coatings*
Jinping Dong, Greg Haugstad, Chris Frethem, John Foley, Bob Hoerr, Mike Matuazewski, and Judit Puskas
- Methycellulose/Agarose Hydrogel System to Release Therapeutic Agents*
Eric J. Minner and Ryan J. Gilbert
- A Novel Approach to Drug Delivery for Hepatitis C Virus (HCV) for High Immune Responses*
W. T. Chen and C. Zhang
- Liver Tolerance to Repeat 90Y-Microsphere Radioembolization*
Patrick McNeillie, Andrew S. Kennedy, William Dezarn, Scott L. Sailer, Mary England and Carroll Overton
- Biodegradable Magnetic Nanocomposite Spheres Fabrication By O/O Emulsion/Solvent Evaporation Technique for Drug Delivery Purposes*
R. Asmatulu and A. Fakhari
- Neutral pH Ferrofluid Fabrication for Biomedical Applications*
R. Asmatulu and A. Fakhari
- Temporal Resolution Phantom: A Device and Method for Measurement of a CT Scanner's Temporal Resolution*
Alexander H. Solcum, Jr., Stephen E. Jones, and Rajiv Gupta
- A Robotic System for Real-Time Tumor Manipulation during Image Guided Breast Biopsy*
Vishnu G. Maliaparagada, Nilanhan Sarkar, and Tarun K. Podder
- A Measurement Device for Rotational Stiffness of the Eye*
Thijs R. de Graaf, Sander Schutte, Hulb J. Simonsz, Arthur G. Erdman, Frans C.T. van der Helm, and Just L. Herder
- Robotic Scrub Nurse for Otolaryngology*
Amer Agovic, Samuel Levine, Nikolaos Papanikolopoulos, and Ahmed Tewfink
- Radiographic Marking of Patient's Gravity Line on X-Ray Images*
Chunhui Wu, Amir A. Mehbod, and Ensor Transfeidt
- Computer Simulation of Female Urinary Incontinence*
Yingchun Zhang, Gerald W. Timm, and Arthur G. Erdman
- A Computational Approach to Muscle Modeling of the Human Tongue via the Finite Element Method Along with Motion Control Correlations with MRI Tracking Data for Simple Speech Patterns*
Dr. Paul Buscemi, Mark Carlson, and Dr. Andrew S. Elliott
- Custom TMJ Hemi-joint Fabrication Process*
Joel L. Kuhlmann and Sean McEligot

A wireless, Passive Strain Sensor: Application to In Vitro Monitoring of Compressive Forces at Knee Implants
Ee Lim Tan and Keat Ghee Ong

PMMA Implants Increase Femoral Strength

Dan Dragomir-Daescu, Mark E. Bolander, Kevin E. Bennet, James T. Bronk, and Sean McEligot

Charged Modification of Hydrogel for Nerve Regeneration

Mahrokh Dadsetan, Andrew M. Knicht, Catalina Vallejo, Lichun Lu, Anthony J. Windebank, and Michael J. Yaszemski

Comparison of Geometries for Diffusion-Based Extraction of Dimethyl Sulphoxide from a Cell Suspension

Katie Fleming Glass, Clara Mata, Ellen K. Longmire, and Allison Hubel

An Innovative Rapid Thermal Cycling Device for Polymerase Chain Reaction

Shadi Mahjooba and Kambiz Vfai

Dynamic Behavior of SMA Actuated Catheter

Arun S. Veeramani, Gregory D. Buckner, Stephen B. Owen, John H. Crews, Richard C. Cook, and Gil Bolotin

A Wireless, Passive Sensor for Monitoring the Pressure of Abdominal Aortic Aneurysm Sac

Brandon D. Pereles and Keat Ghee Ong

Design of Novel Catheter Insertion Device

Erik K. Bassett and Alexander Solcum

Imaging Depth-Resolved Tissue Birefringence with a Single Detector

Muhammad K. Al-Kalsi and Taner Akkin

An Instrument to predict Fall Risk—Project StepWiz

Mats Hanson, David Meymi, Daniel Nilsson, Lars Oddsson, and Robin Rockstr

Development of Nanoporous Ultrathin Membranes for Implantable Drug Delivery

Eric E. Nuxoll, Marc A. Hillmyer, and Ronald A. Siegel

An Implantable Port for Office Laparoscopy: The AbView Access Port

Ajay M. Shah, Nathan Ball, Randy Ewoldt, Shen Kuan Ng, Benjamin Powers, Arian Fuller, Michael Sleden, Arun Anand, and Alexander Solculm

TI Low-Leakage 140nm Digital Process with Nonvolatile FRAM for Ultra-Low-Power Medical Electronics

A. Robert Landers, B. Jerry Elkind, and C. Rajni Aggarwal

A New External Fixator Design for Femoral Fracture Reduction

Michael J. Cucinotta, Courtney E. LeBlon, Nima Rahimi, and Manish Paliwal

Electromyogram-Triggered Functional Electrical Stimulation-Assisted Walking After Partial Paralysis

Anirban Dutta, Rudi Kobetic, and Ronald Triolo

Multi-Compartment Cooling/Warming Garment for Human Thermal Dynamic Research and Medical Applications

Victor S. Koscheyev, Gloria R. Leon, Joo-Young Lee, Joe M. Warpeha, and Daniel A. Saltzman

VOLUME 2 • NUMBER 1 • MARCH 2008

RESEARCH PAPERS

Testing of a Noninvasive Probe for Measurement of Blood Perfusion

Paul S. Robinson, Elaine P. Scott, and Thomas E. Diller

Control of a Passive Mobility Assist Robot
Ji-Chui Ryu, Kaustubh Pathak, and Sunil K. Agrawal

Determining the Fatigue Life of Dental Implants
Horea T. Ilies, Dennis Flanagan, Paul T. McCullough, and Scott McQuoid

Studies on Design Optimization of Coronary Stents
K. Srinivas, T. Nakayama, M. Ohta, S. Obayashi, and T. Yamaguchi

The Diabetic Foot Load Monitor: A Portable Device for Real-Time Subject-Specific Measurements of Deep Plantar Tissue Stresses During Gait
Eran Atlas, Ziva Yizhar, and Amit Gefen

A Calibration Procedure for a Bone Loading System
Siyvana Garcia-Rodríguez, Everett L. Smith, and Heidi-Lynn Ploeg

A Patient-Mounted, Telerobotic Tool for CT-Guided Percutaneous Interventions
Conor J. Walsh, Nevan C. Hanumara, Alexander H. Slocum, Jo-Anne Shepard, and Rajiv Gupta

TECHNICAL BRIEFS

Measuring Luxation of Dental Implants In Vitro
Horea T. Ilies, Dennis Flanagan, Matthew Raby, and Richard Stevenson

Novel Synthetic Total Spine Model for Mechanical Testing of Nucleus Replacement Devices
David Spenciner, Jared W. Walkenhorst, Dennis Y. Lee, and David Paller

DESIGN INNOVATION

Design Innovation Size and Shape Optimization of a 1.0mm Multifunctional Forceps-Scissors Surgical Instrument
Milton E. Aguirre and Mary Frecker

Design of an Endoscopic Duct-Thickness Lesion Removal Device
S. McEuen, D. Tzeranis, B. Hemond, M. Dirckx, L. Lee, and A. Slocum

VOLUME 1 • NUMBER 4 • DECEMBER 2007

RESEARCH PAPERS

Compatibility of Segmenting Fluids in Continuous-Flow Microfluidic PCR
E.J. Walsh, C. King, R. Grimes, A. Gonzalez, and D. Ciobanu

An Apparatus and Protocol to Measure Shoulder Girdle Strength
Brian A. Garner, Jaeho Shim, and Scott Wilson

A Coupled Fluid-Structure Model of a Therapeutic Ultrasound Angioplasty Wire Waveguide
Graham P. Gavin, Finbar Dolan, M.S. J. Hashmi, and Garrett B. McGuinness

New Modality for Maximizing Cryosurgical Killing Scope While Minimizing Mechanical Incision Trauma Using Combined Freezing-Heating System
Jing-Fu Yan, Zhong-Shan Deng, Jing Liu, and Yi-Xin Zhou

A New Medical Parallel Robot and Its Static Balancing Optimization
Simon Lessard, Pascal Bigras, and Ilian A. Bonev

TECHNICAL BRIEF

Isometric Finger Device for Assessment and Training of Force Coordination Using Virtual Reality
Gregorij Kurillo, Matjaž Mihelj, Marko Munih, and Tadej Bajd

TECHNOLOGY REVIEW

Review of US Medical Device Regulation

Jan B. Pietzsch, Lauren M. Aquino, Paul G. Yock, M. Elisabeth Paté-Cornell, and John H. Lienhan

DESIGN INNOVATION PAPER

Self-Cooling Cavity Burs for Surgical Drills

Calvin C. Silverstein

MEMORIAM

In Memoriam: Calvin C. Silverstein

Arthur G. Erdman

VOLUME 1 • NUMBER 3 • SEPTEMBER 2007

RESEARCH PAPERS

In Vitro Quantification of Guidewire Flow-Obstruction Effect in Model Coronary Stenoses for interventional Diagnostic Procedure

Koustubh D Ahtekar, Lloyd H. Beck, Saeb F Khoury, and Rupak K. Banerjee

Device for Measurement of Human Tissue Properties In Vitro

Robert L. Williams, II, Wei Ji, John N. Howell, and Robert R. Conatser, Jr.

Miniaturized Cutting Tool With Triaxial Force Sensing Capabilities for Minimally Invasive Surgery

Pietro Valdastri, Keith Houston, Arianna Mencias, Paolo Dario, Arne Sieber, Masaru Yanagihara, and Masakatsu Fujie

Synthetic Lumbar Intervertebral Disk for Medical Education

Nicolas V. Jumard, Robert C. Richards, Susan M. Stagg-Williams, and Elizabeth A. Friis

Graphical Rendering of Localized Lumps for MIS Applications

Saeed Sokhanvar, Mohammadreza Ramezanifard, Javad Dargahi, and Muthukumaran Packirisamy

DESIGN INNOVATION PAPERS

Design of a Calibration Phantom for Measuring the Temporal Resolution of a Tomographic Imaging Device

Alexander H. Slocum, Jr., Stephen E. Jones, and Rajiv Gupta

TECHNICAL BRIEFS

Lithography Technique for Topographical Micropatterning of Collagen-Glycosaminoglycan Membranes for Tissue Engineering Applications

Vijayakumar Janakiraman, Biran L. Kienitz, and Harihara Baskaran

VOLUME 1 • NUMBER 2 • JUNE 2007

RESEARCH PAPERS

Flexible Prosthetic Vein Valve

Rahul D. Sathe and David N. Ku

Renal Artery Stent Bending Fatigue Analysis

H. M. Hsiao, S. Prabhu, A. Nikanorov, and M. Razavi

Measurement of Impact Loads Applied to an Implanted Drug Pump Connector in a Porcine Cadaver Specimen

Thomas C. Bischoff, Marty D. Martens, Matthew H. Adams, William J. Gallagher, and Paul A. Iaizzo

Modeling and Control Considerations for Powered Lower-Limb Orthoses: A Design Study for Assisted STS

Wesley R. Eby and Eric Kubica

General Uncertainty Analysis for Manual Wheelchair Propulsion Dynamics and Development of an Instrumented Wheel
M. Mallakzadeh and F. Sassani

Gravity-Balanced Arm Support With Energy-Free Adjustment
Wouter D. van Dorsser, Rogier Barents, Boudewijn M. Wisse, and Just L. Herder

Development of a Strain Transferring Sensor Housing for a Lumbar Spinal Fusion Detection System
J. W. Aegersold, W. P. Hnat, M. J. Voor, R. M. Puno, D. J. Jackson, J. T. Lin, K. M. Walsh, and J. F. Naber

A Theoretical and Experimental Investigation of Lateral Deformations in a Unilateral External Fixator
Kerem Ün, İbrahim D. Akçalı, and Mahir Gülşen

TECHNICAL BRIEFS

A New Methodology to Determine the Anatomical Center and Radius of Curved Joint Surfaces
Dominik C. Meyer, Norman Espinosa, Urs Lang, and Peter P. Koch

Application of the Finite Element Technique in the Design and Evaluation of the Artificial Facets for the Lumbar Spine
Miranda N. Shaw, Vijay K. Goel, Koichi Sairyo, Jayant Jangra, Ashok Biyani, and Nabil Ebraheim

Combined Statistical and Multiscale View on Ultrasonic Liver Images for Characterization
K. Mala, V. Sadasivam, and S. Alagappan

VOLUME 1 • NUMBER 1 • MARCH 2007

RESEARCH PAPERS

Designing Strength-Proportional Hydraulic Resistance for an Elbow Flexion-Extension Exercise Machine
Brian A. Garner

A Redundant Accelerometric Cluster for the Measurement of Translational and Angular Acceleration and Angular Velocity of the Head
Paolo Cappa, Fabrizio Patanè, and Stefano Rossi

An In Vivo Mobile Robot for Surgical Vision and Task Assistance
Mark E. Rentschler, Jason Dumpert, Stephen R. Platt, Karl Iagnemma, Dmitry Oleynikov, and Shane M. Farritor

Modeling and Design of a Piezoelectric Forceps Actuator for Meso/Micro Grasping
Ken Susanto and Bingen Yang

An Inexpensive Weight Bearing Indicator Used for Rehabilitation of Patients With Lower Extremity Injuries
Daniel F. Walczyk and John P. Bartlet

Structural and Drug Diffusion Models of Conventional and Auxetic Drug-Eluting Stents
William Jacob S. Dolla, Brian A. Fricke, and Bryan R. Becker

A Removable Precision Device for In-Vivo Mechanical Compression of Rat Tail Intervertebral Discs
Justin M. Stinnett-Donnelly, Jeffrey J. MacLean, and James C. Iatridis

Design of an Endoscopic Biopsy Needle With Flexural Members
Stacy L. Figueredo, William R. Brugge, and Alexander H. Slocum

A Fluid Actuator for Thin-Film Electrodes
Benjamin Arcand, Sudeep Shyamsunder, and Craig Friedrich

Nanoporous Alumina Membranes for Enhancing Hemodialysis

Zhongping Huang, Weiming Zhang, Jianping Yu, and Dayong Gao

TECHNICAL BRIEFS

Mechanical Properties of a Biodegradable Balloon-expandable Stent From Poly,,L-lactide... for Peripheral Vascular Applications

Niels Grabow, Carsten M. Bünge, Katrin Sternberg, Steffen Mews, Kathleen Schmohl, and Klaus-Peter Schmitz

A First-Order Mechanical Device to Model Traumatized Craniovascular Biodynamics

Sean S. Kohles, Ryan W. Mangan, Edward Stan, and James McNames

Design, Build, and Test of a Bobsled Simulator for Olympic Athletes

Mark Wacker, Arthur Erdman, Troy Nickel, and Marie Guion Johnson

DED Treasurer Report July 1, 2010

Prepared by
William W. Clark
Vice Chair and Treasurer

Account #	Account name	Balances			
		06-30-08	07-27-09	03-31-10	05-06-10
4-0414-XXXX	All Accounts	906,677.99	789,323.40	989,678.76	1,000,879.24
4-0414-0000	DED Custodial	428,455.79	329,102.69	480,431.75	465,819.59

Committee Accounts:

4-0414-5032	DAC	20,689.57	19,904.30	19,881.33	29,628.34
4-0414-5034	M&R	22,366.28	16,336.53	23,231.37	22,378.25
4-0414-5035	DFM	19,151.89	18,040.05	23,565.25	22,699.88
4-0414-5036	DTM	27,128.1	8,301.89	12,939.95	12,464.76
4-0414-5037	RSAFP	5,445.87	4,482.42	6,977.76	6,721.52
4-0414-5038	D-EDUC	6,169.76	785.10	1,932.16	1,861.21
4-0414-5041	Vibration & Sound	26,416.2	16,724.28	30,265.02	16,704.98
4-0414-5042	PTG	14,775.37	12,161.37	16,629.34	16,018.66
4-0414-5048	VDGN	1,752.29	3,609.56	6,012.39	5,791.60
4-0414-5049	F&J	1,836.16	1,511.30	1,651	1,590.37
4-0414-5050	MSND	29,097.96	13,165.55	29,639.08	28,050.65
4-0414-5060	MNS	3,617.42	8,766.73	13,755.47	13,250.33

Award Accounts:

4-0414-5001	DAC COMM AWD	45,990.1	32,531.23	36,082.10	34,757.07
4-0414-5002	ABBOT AWD	31,338	23,975.84	28,207.15	27,171.31
4-0414-5003	DAVINCI AWD	19,261.75	15,854.01	18,897.19	18,203.23
4-0414-5004	DEN. HART. AWD	41,961.94	45,322.65	11,690.40	11,261.09
4-0414-5005	OUTSTD EDUC AW	7.58	7.58	7.59	7.59
4-0414-5006	MECH&ROB AWD	14,054.19	22,046.38	24,667.77	23,761.91
4-0414-5007	MYKLESTAD AWD	21,550.28	28,522.21	32,941.19	31,731.50
4-0414-5008	DTM COMM AWD	624.32	11,294.83	13,488.23	21,992.91
4-0414-5009	N. YANG AWD	54,892.53	44,317.57	51,554.88	49,661.64
4-0414-5053	D'ALEMBERT AWD	25,898.89	32,101.48	37,228.81	35,861.66
4-0414-5054	LYAPUNOV AWD	25,867.75	32,075.78	37,198.13	35,832.11
4-04145010 *	PTG award	7,466.47	3,000	7,338.93	7,069.41
4-04145011 *	M&R best pap AWD	9,081.55	14,306.12	20,788.49	20,025.07
4-04145012 *	MNS Award	1,779.97	3,075.95	4,469.74	4,305.60
4-04145061	DAC Young Invest. Award		15,000	16,558.76	15,950.69
4-04145062	DTM Best Paper Award		10,000	11,827.67	11,393.34
4-04145063	MNS Innovator Award		3,000	3,548.30	3,418.00
4-04145064	MESA				5,494.97

* Established in August 2007

**Revenue from the 2009 IDETC -
Based on Deposited Amount and Dolan numbers**

DATE	ACT#	DIV/TC	Erin's Number	Deposits	D/E
MARCH	5048	AVTT	1780.42	1745.23	0.980235
MARCH	5023	DAC	7490.04	7342	0.980235
MARCH	5038	DEC	2087.39	2046.13	0.980234
MARCH	5035	DFMLC	2148.78	2106.31	0.980235
MARCH	5036	DTM	3131.08	3069.2	0.980237
MARCH	5034	MECH	8410.94	8244.7	0.980235
MARCH	5060	MNS	3990.59	3911.72	0.980236
MARCH	5050	MSNDC	14366.14	14082.19	0.980235
MARCH	5042	PTG	2148.78	2106.31	0.980235
MARCH	5037	RSAFP	1657.63	1624.87	0.980237
MARCH	5064	MESA	5095.68	5095.68	1.000000
MARCH	5041	VIB	10682.51	10471.37	0.980235
total amount for all TC			62989.98	61845.71	
FEB	414-0000	DED	62989.99	46102.9	0.731908

2009 IDETC / CIE The following information is provided by Ms. Dolan					
TOTAL CONFERENCE SURPLUS	\$147,345.00				GL#
CIE SURPLUS	\$21,365.03				4-0432-0000
IDETC SURPLUS	\$125,979.98				
DED DIVISION	\$62,989.99				4-0414-0000
DED SUB ACCOUNTS	\$62,989.99				
	PAPERS	% including CIE	% of IDETC only Papers		
AVTT	29	2.42%	2.83%	\$1,780.42	4-0414-5048
DAC	122	10.17%	11.89%	\$7,490.04	4-0414-5032
DEC	34	2.83%	3.31%	\$2,087.39	4-0414-5038
DFMLC	35	2.92%	3.41%	\$2,148.78	4-0414-5035
DTM	51	4.25%	4.97%	\$3,131.08	4-0414-5036
MECH	137	11.42%	13.35%	\$8,410.94	4-0414-5034
MESA	83	6.92%	8.09%	\$5,095.68	4-0414-5064
MNS	65	5.42%	6.34%	\$3,990.59	4-0414-5060
MSNDC	234	19.50%	22.81%	\$14,366.14	4-0414-5050
PTG	35	2.92%	3.41%	\$2,148.78	4-0414-5042
RSAFP	27	2.25%	2.63%	\$1,657.63	4-0414-5037
VIB	174	14.50%	16.96%	\$10,682.51	4-0414-5041
CIE	174	14.50%			
	1200	100.00%	100.00%	\$62,989.99	

DED Transaction/Transferred during July 2009 to July 2010

Job #	Date Received	Custodial Account	Invoice #	Amount	Approved	Date Approved	Remarks
89	8/11/2009	404-14-5007-9924	DED/TCVS	\$500.00	Yes	8/20/2009	
90	8/11/2009	404-14-5004-9924	DED/TCVS	\$500.00	Yes	8/20/2009	
91	8/11/2009	404-14-5053-9924	DED/MNSD	\$1,000.00	Yes	8/20/2009	
92	8/11/2009	404-14-5054-9924	DED/MNSD	\$1,000.00	Yes	8/20/2009	
93	8/11/2009	404-14-5060-9924	DED/MNS TC	\$500.00	Yes	8/20/2009	
94	8/11/2009	404-14-5012-9924	DED/MNS TC	\$500.00	Yes	8/20/2009	
95	8/11/2009	404-14-5061-9924	DED/DAC	1,000.00	Yes	8/20/2009	
96	8/11/2009	404-14-5032-9924	DED/DAC	1,000.00	Yes	8/20/2009	
97	8/20/2009	404-14-5009-9924	DED/Mech & Robotics	1,000.00	Yes	8/20/2009	
98	8/20/2009	404-14-5006-9924	DED/Mech & Robotics	1,500.00	Yes	8/20/2009	
99	8/20/2009	404-14-5034-9924	DED/Mech & Robotics	1,000.00	Yes	8/20/2009	
100	8/20/2009	404-14-5034-9924	DED/Mech & Robotics	1,000.00	Yes	8/20/2009	
101	8/20/2009	404-14-5034-9924	DED/Mech & Robotics	250.00	Yes	8/20/2009	
102	8/20/2009	404-14-5034-9924	DED/Mech & Robotics	250.00	Yes	8/20/2009	
103	8/20/2009	404-14-5034-9924	DED/Mech & Robotics	1,000.00	Yes	8/20/2009	
104	8/24/2009	404-14-5064-9924	DED/MESA	1,500.00		8/26/2009	Contingent upon approval of Ahmed Shabana
105	8/25/2009	404-14-5064-9924	DED/MESA	350.00	Yes	8/26/2009	
106	8/26/2009	404-14-5001-9924	DED/DAC	2,500.00	Yes	8/26/2009	
107	Void						
108	Void						
109	9/23/2009	404-14-0000-6101	DED/ travel expense	4,264.48	yes	9/19/2009	travel expense for Jane Tucker 09 IDETC
110	9/15/2009	404-14-0000-5702	DED/ travel expense	4,054.20	yes	9/19/2009	travel expense for Barbara Butterfield 09 IDETC
111	9/23/2009	404-14-0000-6101	DED/travel expense	997.41	yes	9/19/2009	Stewart Coulter-DAC Keynote Speaker 09IDETC
112	9/23/2009	404-14-5009-9924	DED/Honor Yankg Award	500.00	yes	9/19/2009	2 (250) to Kenneth Currie and Changyu Xue
113	9/20/2009	404-14-0000-5702	DED/Sheridan Printing , INC.	9,920.41	yes	9/19/2009	8 pg newsletter, postage and shipping
114							
115	11/24/2009	404-14-5002-9924	DED/	796.16	yes	11/24/2009	Abbott award glass status
116	10/8/2009	404-14-5038-9924	DEC/Student Competition	3,250	yes	10/29/2009	
117	10/8/2009	404-14-5038-9924	DEC/Student Competition	1,300	yes	10/29/2009	
118	10/8/2009	404-14-5038-9924	DEC/Student Competition	1,000	yes	10/29/2009	
118	11/11/2009	404-14-5002-4790	to DEC	1,350	NO	11/11/2009	Not approved, old Job number was used before

Job #	Date Received	Custodial Account	Invoice #	Amount	Approved	Date Approved	Remarks
119	11/11/2009	404-14-5002-4790	Abbott award	1,000	yes	11/11/2009	
120	11/24/2009	404-14-0000-4790	DED to DEC	1350	yes	11/24/2009	transferred to the DEC from DED
121	12/9/2009	404-14-5002-9924	DED/Invoice	410.41	yes	12/9/2009	Invoice Abbott award glass
122	1/10/2010	404-14-5034-9924	DED/Mechanism	1,750	Yes	1/11/2010	IDETC 2009 student awards/Mechanism and Robotics; Payees: Cassandra Niebel, Kevin Ma, Rupesh S. Baker, Mohammed Ahmed Nasr, Amos Winter, Eric Stratton, Andrew Rau, Mojtaba Azadi, Colin Smith, Torrey Frank, Aaron Hoover and Amos Winter
123	Void						
124	2/5/2010	404-14-5004-9924		40,000			TCVS to endow the Den Hartog Division Level Award to the ASME Society level Award.
125		404-14-5050-9924		500			The MSND Committee rewards recipients Hammad Mazhar-1st Place \$250, Todd D. Lillian – 2nd Place \$150, and Amit P. Gabale - 3rdPlace \$100 for the ASME-2009 IMSNDC STUDENT PAPER CONTEST
126		404-14-0000-6411		250			Creation of the digital file for the DED Summer Newsletter Payee: Susan P. Huggins and Company

IDETC REPORT

DED Executive Committee Meeting
Montreal, Canada
August 15, 2010

STATUS OF IDETC CONFERENCES

The progress reports for the 2010, 2011, 2012 and 2013 IDETC/CIEs are attached. All conferences appear to be on track with their planning and their required processes. The status is summarized below.

- 2010 IDETC/CIE, Montreal, August 15-18, 2010
Pierre Larochelle, Conference Chair
Andrew Murray, Program Chair
- 2011 IDETC/CIE, Washington DC, August 28-31, 2011
Nader Jalili, Conference Chair
Olivier Bauchau and Bogdan Epureanu, Program Chairs
CAI form Part 2 completed
- 2012 IDETC/CIE, Chicago, Aug 6-10, 2012 (tentative)
Michael Stanišić and James P. Schmiedeler, Conference Chairs
CAI form Part 1 completed
- 2013 IDETC/CIE, Location TBD*, Dates TBD
Harry Dankowicz and Dane Quinn, Conference Chairs
*Seattle, Denver, Kansas City, Memphis, and Anaheim are under consideration.

PROPOSAL FOR IDETC 2014

A proposal to hold IDETC/CIE 2014 in Niagara Falls from Venkat Krovi and Tom Sugar is attached to this report.

PROPOSAL FOR IDETC 2014

A special meeting of conference organizers (2010-2014), technical committee chairs, DED Executive Committee Members and CIE Executive Committee members has been organized on Monday, August 16 from 7:00 am - 8:30 am to discuss the proposed 5-day organization for 2012.

FUTURE CONFERENCES

The IDETC is becoming too big in terms of number of tracks. There are too many sessions and conferences in parallel. New conferences have joined IDETC 2012. This detracts from the quality of the conference and makes it impractical to find venues. The DTM conference is single track but all other conferences are multi-track. Conference chairs should be encouraged to minimize the number of tracks. Strong consideration should be given to reducing the duration of paper presentations to 15 or 20 minutes.

MODEL FOR REVENUE SHARING

1. The Conference Surplus is divided based on the number of papers submitted from each division.
2. The CIE division shall receive their portion according to the above.
3. The Design division shall receive 50% of their portion and it shall be forwarded to the main account as such.
4. The remaining 50% of the Design division's surplus shall be divided amongst each of the DED subcommittee according to the number of papers submitted from each subcommittee.

COMMENTS FOR DISCUSSION

1. There is too much pressure on conference organizers. Shifting to a five-day model implies additional responsibilities spread over a longer period of time.
2. Need mechanism for discretionary spending by conference chairs.
3. Model of generating surplus appears to be onerous.
4. Need secretarial assistance for conference chairs.

Respectfully Submitted,

Vijay Kumar
IDETC Executive Member

REPORT TO DED EXECUTIVE COMMITTEE

TO: SUNIL K. AGRAWAL, SECRETARY, DED EXECUTIVE COMMITTEE
FROM: LINDA SCHMIDT, CONSTITUTION AND BYLAWS STANDING COMMITTEE
SUBJECT: REPORT OF ACTIVITIES
DATE: JULY 20, 2010

The newly revised and updated document "Constitution Bylaws and Operating Procedures of the Executive Committee, Design Engineering Division" were posted in the appropriate place on the ASME website.

The only active issue in this year is the proposed change to the Voting Process for new executive committee members.

Current Language: Article 1. Officers, Section 1. Executive Committee, Item 2. (f). on the sequential voting process. (f) Sequential voting, with members in the active pool voting for only one candidate per round, will be conducted by the Nominating Committee. This process will be repeated, if necessary, after dropping the nominee with the smallest number of votes until a nominee has a majority of the votes cast from the active voting pool. E-mail and fax will be acceptable modes for confidential voting, but not the telephone.

Proposed Suggestion for Additional Wording: "If in any round, the vote results in a tie, the voting for that round is repeated. If it results in tie again, then the previous past chair (the most junior member of the advisory committee) shall be asked to break the vote."

The issue with this language is to clearly define the "previous past chair".

The "past chair" is a voting member of the Executive Committee, Chair of the Nominating Committee, and the most junior member of the Advisory Committee.

The "immediate past chair" is the Chair prior to the past chair. This person is on the advisory committee but is not the most junior person on the committee.

There was also discussion of asking a member of the Nominating Committee who may or may not be the immediate past chair to provide the tie-breaking vote.

There was a lot of email discussion on this issue with no clear resolution. It will be brought up at the August meeting for clarification and a vote.

In any case, I recommend that the Advisory Committee website (and all other rosters) record clearly add the titles of "Past Chair" and "Immediate Past Chair" or "Previous Past Chair" to the appropriate committee member. I will bring this issue up at the August meeting as well.

Honors & Awards Committee
G. M. Fadel, Chair
Design Engineering Division -ASME

Report for meeting of August 15, 2010
Montreal, Canada

1. This year, the committees that judged the awards and the new ones as of June 1 are:
 - Machine Design Award**
Panos Papalambros, Crispin Hales, Art Erdman, Jeffrey Ge, Gordon Kirk and Georges Fadel
As of June 1, 2010, the members of the committee (who also serve as general DED H&A committee) are: Panos Papalambros, Alex Slocum, Bahram Ravani, J. Michael McCarthy, Georges Fadel and Gordon Kirk
 - Ruth & Joel Spira Outstanding Educator Award**
Mike Keefe, Art Erdman, Gul Kremer, Judy Vance, Alexander Slocum, and Georges Fadel
The new committee as of June 1, 2010 is: Mike Keefe, Ken Wallace, Gary Kinzel, Gul Kremer, Judy Vance, and Georges Fadel
 - Leonardo DaVinci Award**
Steven Velinsky, Crispin Hales, Art Erdman, Jeffrey Ge, Gordon Kirk and Georges Fadel
As of June 1, 2010, the members of the committee are: Steven Velinsky, Joe Beaman, Farrokh Mistree, Itzhak Green, Gordon Kirk, and Georges Fadel
 - Barnett-Uzgiris Product Safety Award**
No nominations this year. As of June 1, 2010, the committee members are:
Dan Segalman, Crispin Hales, Joe Davidson, Jeffrey Ge, Gordon Kirk and Georges Fadel
 - Robert E. Abbott Award**
Buddy Clark, Kyrt Anderson, and Georges Fadel (appointed as needed by DED chair)
2. The job of the H&A Committee is to select qualified candidates who meet the qualifications for the three awards. This year there were nominations for:
 - Machine Design Award – Selection is: Jahangir Rastegar
 - Ruth & Joel Spira Outstanding Educator Award – Selection is: Sridhar Kota
 - DaVinci Award – Selection is: Friedrich Pfeiffer
 - Robert E. Abbot Award – Subhash Sinha
3. We need more qualified nominations for all the awards, so we are hereby soliciting nominations – These are due February 1 every year. Nomination packets are carried over automatically for 3 years and then removed from consideration, unless renewed by the nominator.
4. The awards certificates for this year are being prepared to be ready for Montreal. I have had difficulty getting information from the TCs in time to prepare all the certificates. We should press on the TCs to complete their award information by June 15, independently of the date of the IDETC. This will allow the DED H&A chair to do a few iterations before fixing the awards.

5. A document was prepared to guide the TCs on the types of awards available, the amounts of cash awards for the various types, and other relevant information. This document is attached.
6. The H&A ad-hoc committee (Buddy Clark and Georges Fadel) also looked at award matching and made three recommendations to the Exec committee. These recommendations are also attached. Proposal 1 was approved and moneys sent to the appropriate accounts. Proposals 2 and 3 are to be discussed at the DED meeting.
7. Awards have been prepared for all H&A outgoing members as well as outgoing journal editors.

G. M. Fadel, Chair
DED Honors & Awards Committee
July 11, 2010

ASME DED Awards Committee, TC chairs, and DED Exec committee:

Please find below information on various ASME awards and a proposal for guidelines on award amounts for DED related awards. For your information, here is the list of ASME and DED awards along with their particularities (the last three society awards are the ones DED has main control over):

Society awards

ASME Medal	\$15,000	
Ralph Coats Roe Medal	\$12,000	Engineer's worth to society
Koski Medal	\$10,000	Fluids
Freeman Scholar	\$7,500	Fluids experience
Soichiro Honda Medal	\$7,500	Personal Transportation
James N Landis Medal	\$7,500	Nuclear of fossil fuel stations + Humanitarian
Edward Obert Award	\$5,000	Thermodynamics
Henry Worthington Medal	\$5,000	Pumping machinery
Old Guard	\$5,000	early Career
Charles T. Main Award	\$3,000	Student section
Edwin Church Medal	\$2,500	Education
Marshall Peterson Award	\$2,500	Tribology
9 awards	\$2,000	not DED
4 awards	\$1,500	not DED
39 awards	\$1,000	not DED
Barnett Uzgiris	\$1,000	DED Safety Inscribed Plaque
Machine Design	\$1,000	DED Eminent achievement Galvano Plaque
Spira Educator Award	\$1,000	DED Design Education medal

DED Division Awards

In Awards account (approximate, March 2010)

Abbott Award	\$1,000	\$28,200	statue	Service to society
Da Vinci Award	\$1,000	\$18,900	medal	Innovative design

DED Division/Committee Awards

In Awards account (approximate, March 2010)

DAC Award	\$2,500	\$36,000	
MSNC Lyapunov	\$1,000	\$37,200	
MSNC D'Alembert	\$1,000	\$37,200	
M&R A.T. Yang	\$1,000	\$51,500	
PTG Darle Dudley Award	\$2,000	\$7,300	(every 4 years)
TCVS Den Hartog	\$500	\$11,700	(Being elevated to Society Award, +40K in acct)
TCVS Myklestad	\$500	\$32,900	

DED Committee Awards

In Awards account (approximate, March 2010)

AVTT Best paper	\$1,000	
DAC Young Investigator	\$1,500	\$16,500
DAC Best paper	\$1,000	(Ford)
DTM Committee Award	\$?	\$13,500
DTM Best paper	\$500	\$11,800
MESA Achievement Award	\$?	
MNS Award	\$500	\$4,400
MNS Best paper	\$500	
MNS Innovator award	\$??	\$3,500
MSNC Honorary	\$1,000	
M&R Committee Award	\$1,500	\$22,000

M&R Best paper	\$1,000	\$20,800
M&R MSC Simulation	\$1,000	(MSC?)
M&R Freudenstein/GM YI	\$1,000	(GM?)
M&R Compliant Mechanisms	\$250	Applications
M&R Compliant Mechanisms	\$250	Theory

Based on this information, the DED Honors and Awards (H&A) Committee discussed ways to deal with the inequities. This is what we propose:

ASME provides several levels of awards to its members within the technical communities. Highest awards are Society level awards. Next are Division awards, Division/committee awards and finally Committee awards. Often, awards are initiated by a technical committee and then are upgraded to a Division and finally to a Society award. The differences between these levels are as follows:

Society Award: Highest visibility
Named award
Symbolic medal or statue (engraving and medal or statue costs)
Typically award selection committee specific to the Award (may be selected by a TC or Division)
Society account number specific for the award (endowment)
Highest Financial amounts
Often travel expenses paid for the winner
Certificate (cost)
Endorsed by the ASME Committee on Honors (COH)

Division Award Second level visibility, general applicability
Named award
Occasional symbolic medal or statue (engraving and medal or statue costs)
Award selection committee at the Division level (may have TC involvement)
Division account number specific for the award (endowment)
Next level financial amounts
Occasional travel expenses paid for winner
Certificate (cost)

Division/Committee Award
Second level visibility, specific applicability to one TC
Often named award (guidelines defined by TC and accepted by DED H&A)
Award selection committee at the TC level
Division account number specific for the award (endowment)
Same level as division financial amounts
Occasional travel expenses paid for winner
Certificate (cost)

Committee Award Third level visibility
Award selection committee at the TC level
Account number specific for the award (endowment) if planning to eventually upgrade to division or society level
Next level financial amounts
Certificate (cost)

The DED Honors and Awards Committee does not want to police what the technical committees do, but would like to provide them with some guidelines from a Divisional point of view.

The DED H&A Committee would like to think that the award itself is a strong symbol, and would prefer to downplay the financial side. However, since there is a push to increase the award amounts, it recommends that Technical Committee awards not exceed \$1,000 per year, that Division and Division/committee awards start at \$1,000 and not exceed \$2,500, and that Society awards start at \$2,500. Also, Best Paper awards should not exceed Committee awards levels. Exceptions to this would be awards that are given infrequently, such as the Dudley award (once every 4 years). In these special cases it would be appropriate for the award amount to exceed \$1,000. In order to sustain the awards at whatever amount is set, the committees must build up the necessary resources in appropriate accounts. Optimally, the award funds should generate from their return on investment, the money paid to the award winner, travel expenses if need be, and the increase in base funds necessary for the award to sustain itself. ASME Committee on Honors (COH) restricts spending amounting to more than 5% of the total fund value, and a minimum of \$40,000 is required in an award account to raise it to Society level. If the funds in the awards account are not sufficient, then the specific TC would have to come up with the difference from its own general fund.

If the Technical Committee feels that a particular award is important and they want and can sustain a higher level award, they should upgrade it to Division/committee or Society level. If the Division contributes significantly to the funds needed to bring the award to a higher level, then the Division may require that some of the selection committee members be chosen by the Executive Committee of the Division. Note also that Society level awards have to be approved by the COH, and therefore must be selected early. Society awards have to be sent to ASME COH by March 1.

The Division/committee award is a classification that was added to the last list. These awards have clear guidelines and these have been approved by the DED H&A. Most of them are named awards (maybe the class should be "Named awards").

Finally, looking at last year's expenditures on awards, we spent in excess of \$6,200 on 311 certificates: \$2,448 for paper certificates, \$1,350 for beveled glass certificates, \$2,310 for wooden plaques, and \$140 for leatherette certificates. This does not take into consideration the costs of shipping them to the conference site that we never see since ASME pays for it and then charges the Division. Furthermore, many certificate recipients are not present in person to receive them, and they have to be mailed to them at additional expense. Official awards and best paper awards are definitely a great way to recognize the achievements of our peers, but there are too many certificates handed out to volunteers, which seems to reduce their value. The H&A Committee encourages the TCs to adopt the following approach: Ask your volunteers up front if they need a paper certificate. If they do, request that certificate, and ASME will print it and charge the TC, otherwise, ASME can produce electronic certificates and email them through the H&A chair to the TC chair or awards coordinator to distribute. The cost of these electronic awards will be less than the paper ones, but has to still be set by ASME.

**Proposal for DED Matching Funds to Technical Committee Award Accounts
May 2010**

Buddy Clark, Technical Committee Executive
Georges Fadel, Honors and Awards Executive

In April the Executive Committee agreed to once again offer matching funds to the Technical Committees to help build up award accounts. On April 22, an announcement went out to committees stating, “Each committee may receive up to \$5,000 for up to two award accounts (for a total of \$10,000 in matching funds). This year these must be Division/Committee awards (best paper awards are not included in this matching program).”

The table below shows the requests that were returned by the Technical Committees. Total request allocation to award accounts is \$106,684, with half coming from the committees and half coming from the division.

The awards for which matching funds have been requested are quite varied, including new awards, Division awards, and Committee awards for established researchers, young investigators, and best paper awards.

Proposal 1

The proposed allocations are shown in the table. It is proposed that matching funds be provided to all achievement award requests, limited by a total account value of \$45K (this is the value needed to enable an award to be elevated to the society level, and to fund the award honorarium through interest income). There is little need to fund an award beyond that level. No matching funds are proposed for best paper awards. The total award account allocation would be \$97,674, with \$46,337 coming from the DED account.

Technical Committee Matching Fund Requests

(Note: Account # 4-0414-0000 is the DED account)

Full request granted. Partial request granted. Request not granted.

	TC	From Account	To Account	Amount Requested	Proposed Allocation	Comments
1	TCVS	4-0414-5041 4-0414-0000	4-0414-5007 4-0414-5007	\$5,000 \$5,000	\$5,000 \$5,000	Total of \$10,000 transferred from the TCVS and DED accounts to the TCVS Myklestad Award .
2	DAC	4-0414-5032 4-0414-0000	4-0414-5061	\$3,000 \$3,000	\$3,000 \$3,000	Total of \$6,000 transferred from the DAC and DED accounts to the DAC Young Investigator Award .
3	DAC	4-0414-5032 4-0414-0000	4-0414-5001	\$4,342 \$4,342	\$4,342 \$4,342	This will put a total of \$8,684 in the DAC Award account .
4	MSND	4-0414-5050 4-0414-0000	4-0414-5054 4-0414-5054	\$5,000 \$5,000	\$4,000 \$4,000	Total of \$8,000 transferred from the MSND and DED accounts to the Lyapunov Award account (limited by the \$45K ceiling – account currently has \$37K).

5	MSND	4-0414-5050 4-0414-0000	4-0414-5053 4-0414-5053	\$5,000 \$5,000	\$4,000 \$4,000	Total of \$8,000 transferred from the MSND and DED accounts to the D'Alembert Award account (limited by the \$45K ceiling – account currently has \$37K).
6	DTM	4-0414-5036 4-0414-0000	4-0414-5008 4-0414-5008	\$5,000 \$5,000	\$5,000 \$5,000	Total of \$10,000 transferred from the DTM and DED accounts to the DTM Committee Award .
7	DTM	4-0414-5036 4-0414-0000	4-0414-5062 4-0414-5062	\$5,000 \$5,000	\$5,000 \$0	Total of \$5,000 transferred from the DTM account to the DTM Best Paper Award account. (No match)
8	M&R	4-0414-5034 4-0414-0000	4-0414-5006 4-0414-5006	\$5,000 \$5,000	\$5,000 \$5,000	Total of \$10,000 transferred from the MR and DED accounts to the M&R Award
9	M&R	4-0414-5034 4-0414-0000	** **	\$5,000 \$5,000	\$5,000 \$5,000	Total of \$10,000 transferred from the MR and DED accounts to establish a new award account: the Freudenstein Young Investigator Award. ‡
10	MESA	** (new account) 4-041400000	** **	\$5,000 \$5,000	\$4,995† \$4,995	Total of \$9,990 transferred from the MESA and DED accounts to establish a new award account: the MESA Awards .
11	PTG	4-0414-5042 4-0414-0000	4-0414-5010 4-0414-5010	\$4,000 \$4,000	\$4,000 \$4,000	Total of \$8,000 transferred from the PTG and DED accounts to the Darle Dudley Award account.
12	MNS	4-0414-5060 4-0414-0000	4-0414-5063 4-0414-5063	\$2,000 \$2,000	\$2,000 \$2,000	Total of \$4,000 transferred from the MNS and DED accounts to the MNS Innovator Award .
	Total	From TCs From DED		\$53,342 \$53,342	\$46,337 \$46,337	

‡The Freudenstein Young Investigator award was regularly funded by GM up until a few years ago, and M&R would like to establish a new account for this award to stabilize its funding.

†This is the current MESA account balance, so is all that is available to transfer to an award account.

Proposal for Boosting Division and Society Awards

Two Division awards are currently below the targeted level for self-sustainment:

Abbot Award (\$28K)

DaVinci Award (\$18.9K)

In addition, the Society awards have seen reductions in account balances lately. Two that are below \$30K are:

Machine Design Award (\$27.3K)

Spira Award (\$24.7K)

Proposal 2:

It is proposed that DED transfer \$10K into each of the Abbot and DaVinci award accounts, with a goal of eventually increasing those account balances to a level of \$45K. Also it is proposed to transfer \$10K into each of the Machine Design and Spira award accounts, to replenish their values from recent drops due to the market and to expenditures for awards.

Proposed Guidelines for Future Matching Funds

Proposal 3:

In an effort to standardize future award allocations by the division, and to guide future plans for the use of revenues, the following guidelines are proposed:

Awards that can receive matching funds from the DED:

- Division or Committee major achievement awards (this includes DAC, DTM, and M&R awards)
- Young investigator awards

Awards that may not receive matching funds from the DED:

- Best paper awards
- A major achievement award that has an account balance of \$45,000 or greater
- A young investigator award that has an account balance of \$45,000 or greater

DED will provide match to help each committee establish fully funded accounts for up to two major achievement awards and one young investigator award.

Proposal 1 was accepted. Proposals 2 and 3 are to be discussed at the DED Meeting.

ASME Design Engineering Division General Committee Meeting
August 17, 2010

US Council for the Theory of Machines and Mechanisms (USToMM)
H. Lipkin

- 1) The next quadrennial IFToMM World Congress is on June 19-25, 2011 at UCEA-Universidad de Guanajuato in Guanajuato Mexico. Papers are due October 1, 2010. Details are at <http://www.iftomm2011.org> .
- 2) From July 1, 2009 to August 1, 2010 IFToMM has sponsored or co-sponsored 15 conferences, symposia, and workshops. Currently there are plans for 7 such upcoming events. Specific details are at <http://iftomm.org> .
- 3) We briefly note the passing of one of the founding members of IFToMM. Prof. J. Oderfeld (Poland) is one of the pioneers of the idea of IFToMM and a former member of its governing bodies as well as scientific boards of world-wide journals. He was reportedly 103 years old.
- 4) The current year subscription fee (dues) to IFToMM are currently for the past two years.

2010 Student Affairs and Early Career Professionals Report

Integrating students and early career professionals into the ASME community is vital to the community and profession. We have been working to achieve this, primarily through activities at the annual DETC. 2008 and 2009 featured scavenger hunts in which hundreds of students participated in activities that ranged from attending technical committee meetings, meeting academic relatives, and getting autographs of famous baseball players. We were able to award great prizes due to the generosity of our sponsors (Herman Miller, Inc., TechSmith, GM, ASME, and the DED). We also enjoyed a special student reception and other activities. The 2010 DETC will feature more opportunities for networking, mentoring, and getting to know the community and host city.

We are also working to revamp the web resources available to students. We would like to consolidate information about the many disparate design activities at ASME, including those outside of the DED, into one location. This ASME design portal will provide relevant information to students and early career professionals, making them aware of the many opportunities available to them. If you have an activity or event you would like to publicize here, please contact Matt Parkinson (committee chair) at parkinson@psu.edu.

ASME Design Engineering Division Information Management Report August 2010

The DED Information Management Committee provides reference information for ASME members via the DED web site.

The Information Management Committee has been responsible for posting information on the (DED) website. Activities have involved the development of the web site, web page maintenance and assisting with the transition of the DED web site to the new ASME structure.

During the past year a new content management system has been implemented by the ASME Unit Support Group. The content management system now allows direct updates to the website without the need to edit HTML code.

Activities have involved assisting with updating the awards information on the ASME website.

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ASME Design Division K-12 Awareness of Design Committee Report

August 18, 2010

Kathy Jacobson - Chair
Kathy.J.Jacobson@LMCO.com
770-494-7818

2010 program involvement:

- The committee will be transitioning from being at the Design Division level to under the ASME Design Education Committee this year. I am coordinating with the Design Education committee chair.
- Inputs and ideas were solicited from participants of last year's Broadening Participation workshop.
- Contact the committee for additional ideas for participating in K-12 STEM education activities.

Resources:

Great web sites for activities to help you get K-12 school kids interested in Engineering.

ASME Pre-College Education

<http://www.asme.org/Communities/Students/K12/>

Engineers Week

www.eweek.org

Science Olympiad

www.SOINC.org

Girl Scout Engineering

http://www.gogirlsonly.org/spotlight/engineers_week.asp

Publications Committee Report ASME Design Engineering Division July 2010

Guidelines for Turnover of DED journal Editor-In-Chief (EIC)

Very basic requirements are described within the DED Executive Committee Bylaws for the process associated with replacing a DED journal EIC when their term in office is expiring. It appears that in the past the actual procedures followed have been within the basic requirements as defined by the bylaws, but have been somewhat ad hoc. In an effort address the many questions which had been posed regarding this process, A guideline and associated timeline which formalizes the procedure was prepared, revised and accepted by the DED Executive committee in September 2009. This document is to be distributed to DED journal EICs a year in advance of the expiration of their terms, so that the guidelines, and timeline it provides may be followed in the nomination and selection of a new EIC..

Journal of Vibrations and Acoustics

On 12/31/2009 Konwell Wang's term as EIC expired. He was then replaced by Noel C. Perkins whose term will run from 1/1/2010 – 12/31/2014.

Journal Computational and Nonlinear Dynamics

On 12/31/2009 the EIC tem of Subhash Sinha Expired. To remove any appearance of a conflict of interest with the nominated and DED Executive Committee approved replacement EIC (Ahmed Shabana, the then Chair of the DED Executive Committee), Professor Sinha's term as EIC was extended one year, and will now expire on 12/31/2010.

Journal of Computing and Information Science in Engineering (JCISE)

On 6/30/2010 Jami Shah's term as the journal EIC expired. He nominated Bahram Ravani as the new EIC. This recommendation was unanimously supported by the DED Executive Committee. This nomination has also been endorsed by the CIE Executive Committee. This nomination has now been forwarded to the Chair of the ASME Technical Publication Committee for approval. Three new members have been approved for the JCISE Advisory Board. These are:

Shapour Azarm replaces Bahram Ravani (DED seat 1)

Kurt Anderson replaces Alan Parkinson (DED seat 2)

Ravi Rangan replaces YongSe Kim (CIE-1)

All others remain unchanged.

As per rule, the Chair of the Advisory Board is rotated between CIE and DED. Since David Lee from CIE is the current Chair, the next one (starting after ASME DETC meeting) will be from DED. So Shapour Azarm and Kurt Anderson need to decide who wants to volunteer first (Kurt Anderson relinquishes this position to Shapour Azarm if Professor Azarm is willing to serve in this capacity).

Journal of Medical Devices

On 12/31/2010 the terms of Arthur Erdman (primarily a DED representative) and Gerald Miller (primarily a Bioengineering Division representative) will expire as EICs. Professor Miller has forwarded the *DED Editor-IN-Chief Turnover Guidelines* to the Bioengineering Division to see how it meshes with the Bioengineering Divisions policies regarding selection or retention of Journal EIC. We are still waiting for a formal reply regarding this from the Bioengineering Division.

Report Submitted by Kurt S. Anderson
Chair DED Publications Committee □

Proposal for
ESTABLISHING DESIGN ENGINEERING DIVISION CLUSTERS

Prepared by Ahmed A. Shabana

1. INTRODUCTION

The Design Engineering Division (DED) is one of the largest ASME divisions. It has a large number of active technical committees that sponsor several journals and conferences. The objective of this proposal is to organize DED into three clusters, each of which will consist of several technical committees. The formation of the technical clusters is necessary in order to allow for managing the division more efficiently. Specifically, establishing the clusters will

1. facilitate communication between the DED Executive Committee and the DED technical committees,
2. allow better coordination of activities of technical committees with common interest,
3. provide a more efficient system for recognizing the accomplishments of the technical committee officers,
4. allow a better organization and improving the quality of IDETC conferences by grouping conferences of related topics,
5. allow for establishing a more efficient system for managing the DED awards and account information, and
6. help ensure a fair representation of the DED communities in the DED Executive Committee.

Each of the proposed DED clusters will have a cluster leader who is familiar with the DED Executive Committee composition, plans, and operations.

2. TECHNICAL CLUSTERS

The tentative proposal of organizing DED involves the following three clusters:

A. Design Methods Cluster (DMC)

The DED Design Methods Cluster (DMC) will consist of the following DED technical committees:

1. Design Automation
2. Design Education
3. Design for Manufacturing
4. Design Theory and Methodology

DMC will sponsor the following conferences at IDETC:

- Design Automation Conference (DAC)
- Symposium on International Design and Design Education (DEC)
- International Conference on Design Theory and Methodology (DTM)
- Design for Manufacturing and the Life Cycle Conference (DFMLC)

These four conferences will be listed in the IDETC Call for Papers announcements and in the IDETC Program under the title *Design Methods Conferences*.

B. Mechanical Devices Cluster (MDC)

The DED Mechanical Devices Cluster (MDC) will consist of the following DED technical committees:

1. Fastening and Joining
2. Mechanisms and Robotics
3. Micro and Nano Systems
4. Power Transmission and Gearing
5. Mechatronic and Embedded Systems and Application

MDC will sponsor the following conferences at IDETC:

- Mechanisms and Robotics Conference (MECH)
- Power Transmission and Gearing Conference (PTG)
- International Conference on Micro- and Nanosystems (MNS)
- International Conference on Mechatronic and Embedded Systems and Applications (MESA)

These four conferences will be listed in the IDETC Call for Papers announcements and in the IDETC Program under the title *Mechanical Devices Conferences*.

C. Design and Applied Mechanics Cluster (DAMC)

The DED Design and Applied Mechanics Cluster (DAMC) will consist of the following committees:

1. Multibody Systems and Nonlinear Dynamics
2. Reliability, Stress Analysis & Failure Prevention
3. Vehicle Design
4. Vibration and Sound

DAMC will sponsor the following conferences at IDETC:

- Conference on Mechanical Vibration and Noise (VIB)

- International Conference on Multibody Systems, Nonlinear Dynamics, and Control (MSNDC)
- International Conference on Advanced Vehicle and Tire Technologies (AVTT)
- Reliability, Stress Analysis, and Failure Prevention Conference (RSAFP)

These four conferences will be listed in the IDETC Call for Papers announcements and in the IDETC Program under the title *Design and Applied Mechanics Conferences*.

3. CLUSTER LEADERS

1. Each DED cluster will have a cluster leader who will serve for a term of three years. Cluster leaders may not serve for more than two consecutive terms.
2. Cluster leaders will be selected by the DED Executive Committees from nominations made by the technical committees. The technical committees of each cluster can submit several nominations of qualified candidates.
3. It is preferable that the cluster leader is one of the DED past technical committee chairs who is familiar with the DED strategic plans, operations, and the composition of the DED Executive Committee.
4. Cluster leaders will meet with their committee officers prior to each of the DED Executive Committee meetings in order to discuss the committee situation, performance, problems, and concerns. The results of these meetings, which can be conference calls, will be communicated with the DED Executive Committee.
5. Each cluster leader should try to attend the technical committee meetings within that cluster.
6. The cluster leader will help in facilitating communication between the DED Technical Committee Executive and the DED cluster technical committee chairs.
7. The cluster leader will help in facilitating communication between the IDETC Organizers and the DED cluster technical committee chairs. He/she will help in providing the required award information, committee reports, and will have access to the cluster committee and award accounts.
8. The cluster leader shall prepare an annual report that summarizes the activities of the cluster technical committees. The report will describe the committee status and will discuss the synergy and activity coordination between the cluster technical committees. This report will be submitted to the DED Technical Committee Executive before the IDETC meeting.
9. If a technical committee chair or an acting chair can not be appointed or found during a certain period, the cluster leader may serve as the Acting Technical Committee Chair during this period until a new chair is appointed. The cluster leader will work with the technical committee members in order to accelerate the process of appointing a new chair.
10. The cluster leaders will serve as members of the DED Nominating Committee which is in charge of the election of the new members of the DED Executive Committee.

ASME CONFIDENTIAL
ASME Transactions: Journal of Computing & Information Science (JCISE)
Annual Report Aug, 2010

Special Projects

1. Migration from eLane to ASME journal tool has been stalled; ASME has been unable to deliver the essential functions for reviewer searches, keywords, special issues. IT staff resources have been pulled from this effort by ASME.
2. In 2010 we did only one special issue; it was on AI/Knowledge based systems (V10N3, Ed. A. Goel),
3. Future special issues in progress are: Driving Simulation (Eds; Kemeny, Allen, Buchoff), and Gaming in engineering applications (Eds: T. Lim, J. Corney); 10th anniversary issue.

Current Status and Outlook

Backlog

As of 8/10/2010: 21 accepted papers awaiting publication; Backlog = 2 issues (6 months). This compares to 3 issues or 9 months at this time last year.

Impact Factors: Peer journals

Journal	Publisher	2006	2007	2008	2009
JCISE	ASME	0.531	0.446	0.807	0.750
Adv in Eng Software	ElSevier	0.431	0.529	1.18	1.04
AIEDAM	Cambridge U Press	0.405	0.279	0.477	0.63
Computer aided Design (CAD)	ElSevier	1.446	1.22	1.474	1.66
Concurrent Eng Res & App	Sage	0.569	0.482	0.611	0.959
Int J Adv Manuf Tech	Springer	0.418	0.378	0.743	1.12
Int J CIM (IJCIM)	Taylor & Francis	0.383	0.297	0.722	0.659
J Manuf Sys (JMS)	SME	0.150	0.032	0.214	0.216
J. Intel Manuf (JIM)	Springer	0.598	0.419	1.01	0.938
Manuf Science & Eng Transactions	ASME	0.536	0.595	0.740	0.599
Res Eng Design (RED)	Springer	0.667	0.517	1.32	1.03

Impact Factors: ASME journals – from ISI webpage

Sorted by 2009 Impact factor

J HEAT TRANS-T ASME	0.959
J APPL MECH-T ASME	0.915
J MECH DESIGN	0.869
J DYN SYST-T ASME	0.840
J SOL ENERG-T ASME	0.826
J ENG MATER-T ASME	0.815
J ELECTRON PACKAGING	0.781
J COMPUT INF SCI ENG	0.750
J VIB ACOUST	0.708
J TRIBOL-T ASME	0.702
J ENG GAS TURB POWER	0.635
J MANUF SCI E-T ASME	0.599
J COMPUT NONLIN DYN	0.557
J ENERG RESOUR-ASME	0.512
J FLUID ENG-T ASME	0.452
J TURBOMACH	0.391
J PRESS VESS-T ASME	0.351
J OFFSHORE MECH ARCT	0.289

Sorted by 5-yr impact factor

J MECH DESIGN	1.518
J ENG MATER-T ASME	1.447
J HEAT TRANS-T ASME	1.392
J APPL MECH-T ASME	1.207
J COMPUT INF SCI ENG	1.195
J TRIBOL-T ASME	1.078
J SOL ENERG-T ASME	1.022
J MANUF SCI E-T ASME	1.000
J DYN SYST-T ASME	0.992
J ELECTRON PACKAGING	0.944
J VIB ACOUST	0.921
J ENG GAS TURB POWER	0.842
J TURBOMACH	0.824
J FLUID ENG-T ASME	0.784
J ENERG RESOUR-ASME	0.578
J PRESS VESS-T ASME	0.512
J OFFSHORE MECH ARCT	0.359
J COMPUT NONLIN DYN	

Competition

The biggest competitor is the Elsevier CAD journal which has been around for 60 years, publishes 1600+ pages annually and has the highest impact factor. Our competitive advantage is that we are narrowly focused on mechanical engineering applications, while the publish everything, from geology to video games.

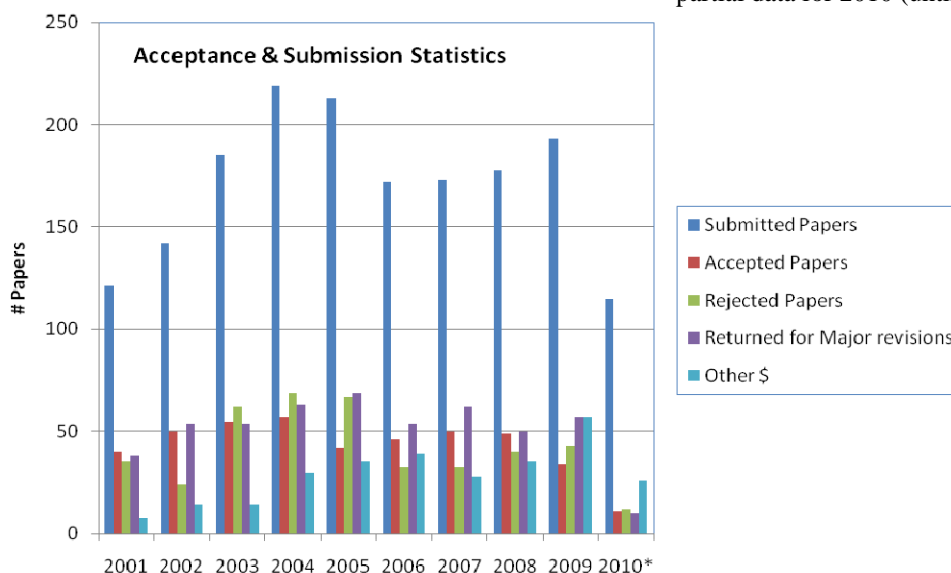
Associate Editors and Areas of Expertise

Name	Institution	Term 1	Term 2	Area of expertise
Jan Vandenbrande	Boeing Co.	12/04-12/07	1/08 – 1/11	CAPD
Jim Oliver	Iowa State	5/05-5/08	6/08 – 6/11	Virtual Reality
John Michopoulos	ONR	5/05-5/08	6/08 – 6/11	FEA, simulation
SK Gupta	U. Maryland	1/06-12/08	1/09 – 12/11	CAM, features
Kincho Law	Stanford	8/06-8/09	9/09 – 8/12	Informatics
Anath Fischer	Technion, Israel	1/07-12/09	2 nd nomination submitted	Comp metrology
Ian Grosse	UMass Amherst	3/08 – 3/11		Optimization; FEA
Sara McMains	UC Berkeley	7/08 – 7/ 11		Geom Modeling
Kazu Saitou	U Michigan	5/09 – 5/12		FEA, simulation
Ashok Goel	GeorgiaTech, CS	5/09 – 5/12		AI/KBS
Shuming Gao	Zhejiang U, CS	5/09 – 5/12		Comput Geometry
Chris Geiger	Dusseldorf, Dept of Media	5/09 – 5/12		VR/Haptics
Xiaping Qian	IIT Chicago	6/09 – 6/12		Compu Metrology
Yoshi Kitamura	Osaka Univ, Japan	12/09 – 12/12		AI/KBS
Chris McMahon	U. of Bath, UK	12/09 – 12/12		Informatics
Ajay Joneja	HKUST, Hong Kong	3/09-3/12		CAM

Summary of Activity (January 1, 2001 – August, 2010)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010*
Submitted Papers	121	142	185	219	213	172	173	178	193	115
Accepted Papers	40	50	55	57	42	46	50	49	34	11
Rejected Papers	35	24	62	69	67	33	33	40	43	12
Returned for Major revisions	38	54	54	63	69	54	62	50	57	10
Other ^s	8	14	14	30	35	39	28	35	57	26
Open Papers	0	0	0	0	0	0	0	4	2	56
Published Papers	44	41	44	43	45	45	43	41	43	36
Number of Pages	377	340	367	388	393	418	388	383	378	227

• partial data for 2010 (until Aug 10th, 2010)



Percentages(based on total decisions made in that year)

	y2001	y2002	y2003	y2004	y2005	y2006	y2007	y2008	y2009	y2010	Avg
% Papers Accepted	33	35.2	29.7	26.0	19.7	26.7	28.9	27.5	17.6	9.6	27.14
% Papers Rejected	24.8	16.9	33.5	31.5	31.4	19.2	19.1	22.5	22.3	10.4	24.58
% No decision*	<i>Balance</i>										

No decision means in-process, sent back for revision,...

* Average does not include data for 2010

% Papers never Resubmitted after being placed in major revision category

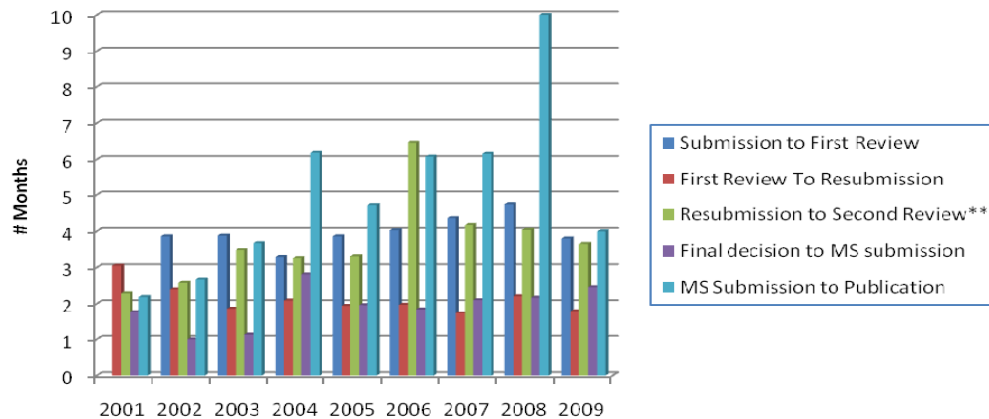
01	02	03	04	05	06	07	08	09	10	Avg
9.7	13.9	9.6	6.7	4.2	8.7	5.8	5.1	4.2	20.8	7.54

+ Average does not include data for 2010

Reviewing(& publication) Time averages (Months)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Submission to First Review		3.86	3.88	3.29	3.86	4.03	4.36	4.74	3.8	1.72
First Review To Resubmission	3.05	2.4	1.86	2.09	1.94	1.97	1.73	2.21	1.79	1
Resubmission to Second Review**	2.29	2.58	3.48	3.26	3.31	6.46	4.17	4.04	3.65	-
Final decision to MS submission	1.76	1.00	1.13	2.81	1.96	1.84	2.1	2.17	2.46	-
MS Submission to Publication	2.19	2.67	3.67	6.19	4.72	6.08	6.16	10	4	-

Time Statistics



Innovation and Entrepreneurship Committee

Jahan Rastegar

The Innovation and Entrepreneurship Committee was formed in March 2009. Jahan Rastegar was appointed the Chair of the Committee. The committee currently has the following members from academia, industry and intellectual property firms:

1. George Sutherland, Professor, MMET/PS Department, Rochester Institute of Technology.
2. Jim Schmiedeler, Associate Professor, Aerospace and Mechanical Engineering, University of Notre Dame.
3. Kazem Kazerounian, Professor, Mechanical Engineering Department, University of Connecticut.
4. Ramesh Sharma, Senior Fellow and in charge of promoting innovation, Raytheon Company, Tuscon, Arizona.
5. Thomas Spinelli, Scully Scott Murphy and Presser, PC, Garden City, New York.

For the 2010 IDETC, we organized one session for inventors to submit extended abstracts (1000 words maximum) to describe an invention and discuss their views and experiences in arriving at their novel solutions to the specific problem at hand. We could only organize one session. Some of the problems that we faced in attracting more inventors were: 1) The conference is not very well known among the engineers in the industry; 2) the company management does not see the benefit of their engineers attending the conference; and 3) a few had problem getting permission to travel outside the country. We are trying to recruit more people from the industry, particularly smaller companies who are involved more in developing new technology.

We were also planning to organize a workshop on intellectual property. However, we could not get it worked out for this year but have two highly experienced patent attorneys that handle mostly mechanical devices that have promised to organize a workshop for the 2011 IDETC conference.

BREAKING TIES IN VOTING PROCESS OF EXECUTIVE COMMITTEE

Current Language: Article 1. Officers, Section 1. Executive Committee, Item 2. (f). on the sequential voting process. 2(f) Sequential voting, with members in the active pool voting for only one candidate per round, will be conducted by the Nominating Committee. This process will be repeated, if necessary, after dropping the nominee with the smallest number of votes until a nominee has a majority of the votes cast from the active voting pool. E-mail and fax will be acceptable modes for confidential voting, but not the telephone.

The Past Chair has already voted once in the round that results in a tie. The Past Chair is a voting member of the Executive Committee and the Chair of the Nominating committee. The Past Chair is also the most junior member of the Advisory Committee.

The Previous Past Chair (or Immediate Past Chair – the titles seem synonymous and only one should be used in the By Laws) is on the Advisory committee (but not the most junior person) and may or may not be on the Nominating Committee.

Two options for tie breaking language to be added to 2(f): "If in any round the voting results in a tie between the remaining candidates, a tie is announced and the voting for that round is repeated. If the following round again results in a tie then

Option A: ... the member of the Advisory Committee who is also on the Nominating Committee shall be asked to supply the tie-breaking vote."

Option B: ...the Previous Past Chair shall be asked to supply the tie-breaking vote."

Note that the Previous Past Chair is not automatically a member of the Nominating committee. If you choose this option and the Previous Past Chair is a member of the Nominating committee they may have a favorite in the running. Otherwise, they may bring a fresh perspective to the process.

In addition to this change I recommend that the Advisory Committee website (and all other rosters) clearly add the titles of "Past Chair" and "Immediate Past Chair" or "Previous Past Chair" (Pick one of the following titles) to the appropriate committee member.

Respectfully Submitted,

Linda Schmidt