

Message from the Chair • *Kazem Kazeronian, Design Engineering Division Chair*



Greetings! I am humbled and excited to serve as the chairman of the Design Engineering Division (DED) in the coming year. The wisdom and the hard work of previous chairs have

left the division in excellent shape. In particular, I believe I speak for all of us in expressing sincere gratitude to the outgoing chair, **Dr. Judy Vance**, for her admirable leadership. I will continue to seek her wise counsel. Likewise, the dynamic participation of leaders and members of the Executive Committee, the General Committee, the Division's Journal Editors and the Technical Committees, have been key to the success and effectiveness of the Design Engineering Division throughout the years.

Reflecting upon the Division's achievements and growth, its rich portfolio of journals, technical committees and conferences, I am overtaken with pride. Design Engineering, more than any other technical profession, is intertwined with our society. Our Division's mission is "to lead in fostering and promoting the art, science and application of Design Engineering as well as the professional careers of Design Engineers in Education, Research and Engineering practice." We cannot be faithful to this mission without considering societal issues and trends.

The global society faces such monumental challenges as population growth, global warming and pollution, depleting energy, food and water resources, security, wealth disparity, regional and global conflicts, gender and racial inequity, and more. As a community, we have chosen to take an active role in understanding these problems and to participate in their solution. At our various conferences, for instance, one finds scholarly papers that address these important issues. The sessions organized by the Design Engineering Division are rich in discussions on the inclusion of engineering ethics, environmental, economic, and global subjects in the engineering design classroom. Nevertheless, we

must do more.

The issue of a global engineering workforce poses yet another complex enigma that affects the professions and lives of us all. These are tremendous challenges, and challenges offer opportunities. A wise person once said "opportunity will not knock if we don't build a door." We must intensify our discussions on these issues. Our Division must take bold steps in providing resources and visibility to forums that address the planet and its people. I intend to examine how we can engage our members in focusing on these issues. I will also work with you to see how we can tackle the issue of the underrepresentation of women and minorities in our Division and profession.

The Design Engineering Division is more than six decades old (founded in 1945 as the Machine Design Division). The fact that DED has existed for 63 years is a testament to our ability to adapt to change. On the technical side, the rate of change in research topics is greater now than it has been during our entire history. The viability of the Division will be determined by how quickly we are able to adapt to these changes and position the technical component of our activities to respond to developing interests and needs. Another challenge we have increasingly faced over the last decade has been coping with growth and utilizing our resources to better serve and benefit our members. The ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC/CIE) have reached record attendance. During my tenure as the chair, I will work with the Executive Committee and Technical Committee leaders to examine our practices and resources and to explore ways we can improve.

I want to welcome **Dr. Vijay Kumar** and **Dr. Hamid R. Hamidzadeh** to the Executive Committee. I also want to offer my sincere gratitude to **Dr. Larry Howell** and **Dr. Shapour Azarm** (past chair and ex-officio) for their very valuable service during their tenures in the executive committee. The continuing Executive Committee members with whom I will have the privilege of working are **Dr. Judy**

Message from the Chair	1
New ASME Journal: Mechanisms and Robotics	1
Greetings from the Past Chair	2
Division Members Elected to Fellow Grade	2
Conference Reports	3
National Manufacturing Week 2008	3
Journal Activity Reports	4
Technical Committee Reports	5
Standing Committee Reports	7
IDETC/CIE 2009	8
Executive Committee Roster	8

Vance (outgoing chair), **Dr. Ahmad Shabana**, **Dr. (Buddy) W. Clark** and **Dr. Zissimios Mourelatos**. I also want to thank the ASME staff and in particular two capable individuals, **Ms. LaShion Pettiford** and **Mr. Richard Ulvila**, who have supported the Design Division.

Finally I urge all of you to visit our web site and become familiar with our Division, our mission, our Technical Committees, DED General and Executive Committees, our standing and special subcommittees, our journals, our awards, our conferences, our publications and newsletters, and our services. Find an opportunity to participate. Recognize the strengths in your colleagues and nominate them. We can make a difference in your career, and you can make a difference in another's. Contact me directly at Kazem.Kazerounian@UConn.edu if I can be of any help.

I look forward to seeing you at the CIE / IDETC 2008 conference in New York in August. ●

New ASME Journal: Mechanisms and Robotics

The new Transactions of the ASME, Journal of Mechanisms and Robotics began accepting submissions in January 2008 and is on track to publish its inaugural issue by September 2008. See page 4 for more information. ●

EXECUTIVE COMMITTEE REPORTS

Greetings from the Past Chair • *Judy Vance, Immediate Past DED Chair*



This past year has been a busy year for the Design Engineering Division. As I stated in the last newsletter, it takes the efforts of many volunteers to perform all of the tasks needed to keep the Division going throughout the year.

The International Design Engineering Technical Conferences (IDETC) held in September in Las Vegas was a very successful event. The IDETC attracted over 1400 attendees from industry, government and academia. The event served as a coordinated activity for the speakers, panels, and paper presentations for 13 separate conferences sponsored by the various technical committees of the DED as well as the annual Computers and Information in Engineering Conference. The format of holding all of these conferences at one venue allows participants whose research and interests span several technical areas to participate fully in multiple conferences. Organizing such a diverse group is a tremendous task. A report on the outcomes of the conference can be found later in this newsletter. I want to take this opportunity to congratulate the General Conference Chair **Prof. H.S. Tzou** (U of Kentucky) and the Program Chair **Prof. Nader Jalili** (Clemson) on an excellent job of managing this very successful event.

Supporting conferences continues to be a major activity of the division. Volunteers from the division are active in serving as technical track chairs for several of the 20 tracks of the ASME International Mechanical Engineering Congress and Exposition (IMECE) to be held October 31 – November 6, 2008 in Boston, MA. The DED also co-sponsored several design-related conferences throughout the year including the IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications (MESA08), the 2008 Symposium on Mechanics of Slender Structures, and the Design of Medical Devices Conference. Recently, the DED Executive Committee voted to establish a cooperative relationship with the International Society of Structural and Multidisciplinary Optimization (ISSMO), which will result in increased opportunities for members of both organizations to participate in the ASME Design Automation Conference and the ISSMO World Congress of Structural and Multidisciplinary Optimization (WCSMO).

The division remains financially healthy. A few years ago, the DED Executive Committee agreed to assume total financial

responsibility for the division-supported conference activities, primarily the IDETC. With the increased responsibility for risk came the potential for greater rewards. To date, with the continued success of the IDETC, this has proven to be a very sound decision. This year, the DED Executive Committee agreed to distribute some of the excess funds from the DED custodial fund to the technical committees to support committee awards. Approximately \$36,000 of DED custodial account funds were matched by committee funds and deposited in various committee honors and award accounts. These actions will assure us of having sufficient funds to honor those colleagues who contribute significantly to the discipline and practice of design engineering. The DED also contributed to the ASME Virginia Tech Memorial Scholarship Fund which was established to honor the victims of the VT shooting.

I am pleased to announce the creation of a new journal within our division. After considerable discussion within the community, the Journal of Mechanisms and Robotics (JMR) was created under the editorship of **Prof. J. Michael McCarthy**. In the past, the Journal of Mechanical Design contained a significant number of mechanisms- and robotics-related papers. While design-related papers dealing with mechanisms and robotics will continue to be accepted by the Journal of Mechanical Design, the creation of the new journal will provide a more focused identity for both journals and provide an opportunity for the Journal of Mechanical Design (JMD) to expand into new areas. **Prof. Panos Papalambros**, editor of JMD, is working closely with Professor McCarthy to make this transition happen smoothly. The Division now sponsors six technical journals. I sincerely thank all of the editors and associate editors of our journals for their efforts.

There are some new appointees to the DED leadership team. **Dr. Georges Fadel** will assume the chair of the Honors and Awards Committee as **Dr. Joseph Davidson** finishes his term in June 2008. Dr. Davidson has done an excellent job leading this activity and I truly thank him for his efforts. **Dr. Matthew Parkinson** will assume the chair of the Student Affairs Committee, taking over for **Dr. Pierre Larochelle**. Thank you to Dr. Larochelle for his extensive efforts in revitalizing student involvement in the division. This year, this committee's charge has been expanded to include activities for young professionals, so watch for new opportunities and activities from this committee.

I want to especially thank **Dr. Shapour Azarm**, past DED chair, and **Dr. Kazem Kazerounian**, DED Vice Chair/Treasurer, for their timely advice and help over this past year. I am very grateful for having a strong Executive Committee with committed volunteers, including **Dr. Ahmed Shabana**, **Dr. Hamid Hamidzadeh**, **Dr. Larry Howell**, **Dr. William W. (Buddy) Clark** and **Dr. Zissimos Mourelatos**. Thank you all for your efforts. I'd also like to thank the ASME staff including **Ms. Noha El-Ghobashy**, **Ms. LaShion Pettiford**, **Ms. Erin Dolan**, and our new ASME Liaison, **Mr. Richard Ulvila**, for all of the support they provide the division. This has truly been a team effort.

In conclusion, I want to thank you for your membership in ASME and your association with the Design Engineering Division. I congratulate **Dr. Kazerounian** as he assumes the position of DED chair for 2008-2009 and I look forward to seeing many of you at the CIE/IDETC in New York this summer. •

Division Members Elected to Fellow Grade

Richard A. Hirsch, P. E. • Fellows Nominating Committee Chair

During the past year eight members of our Division have been elected to the Fellow Grade of membership. They are: **David M. Anderson**, **Alejandro R. Diaz**, **Imtiaz-Ul Haque**, **John S. Lamancusa**, **Robert G. Parker**, **Vadim Shapiro**, **Henry J. Sommer**, and **Hong-Sei Yan**. Congratulations to these members and special thanks to their sponsors and supporters. Since an ASME member can not apply for this distinguished grade of membership, a colleague must take the time to complete the required application and arrange for letters of support. It is not a difficult task, but it does take some time. However, if we don't take the time to do this, who will? The necessary forms and instructions can be found on the ASME website. The applications are now being reviewed four times per year. Anyone requiring assistance or having questions can contact me at hirschr@asme.org. •

CONFERENCE REPORTS

IDETC/CIE 2007 *Horn-Sen (H.S.) Tzou, 2007 IDETC/CIE General Conference Chair*

Nader Jalili, 2007 IDETC/CIE Technical Program Chair



The 2007 ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC/CIE07) established several new records in the DED's history: It was the largest IDETC/CIE to date, with 13 conferences, 1700+ abstracts received, 1223 papers accepted, ~1450 people in attendance, and \$200k in revenue generated.

There were 12 conference keynote lectures, 10 tutorials/workshops and a general conference welcome keynote lecture entitled "Shaking the Money Tree - Funding at NSF" reported by 3 NSF Program Directors. In addition, IDETC/CIE07 offered two receptions: 1) the Deans' reception on UNLV campus and 2) the IDETC/CIE Conference Reception at Rio, as well as several division, conference, and committee award dinners at Caesars Palace. Again, we would like to express our sincerest thanks to all conference and symposium organizers, technical committee chairs, authors, reviewers, student participants, ASME staff (especially Erin Dolan and Christina Perakis), as well as various advisory and international committee members involved in this historic event held in Las Vegas on September 04-07, 2007. ●



NSF Keynote speakers: Program Chair: Nader Jalili (far-L), Dr. J.M. Vance (center-L), Dr. S. Jayasuriya (center-R), General Chair: H.S. Tzou (far-R)



MSNDC Keynote speech by Dr. Werner Schieblen

IDETC/CIE 2008 •

Souran Manoochebri, 2008 IDETC/CIE Conference General Co-Chair

Jahangir Rastegar, 2008 IDETC/CIE Conference General Co-Chair

The 2008 ASME IDETC/CIE Conference will be held August 3-6, 2008 at the New York Marriot at the Brooklyn Bridge. This event is the premier international meeting in the fields of Design Engineering and Computers and Information in Engineering. It is designed to showcase cutting-edge research and accomplishments and to enrich educational experiences in these fields. It will feature tutorials, research workshops and sessions with technical papers for the following conferences:

- 34th Design Automation Conference (DAC)
- 32nd Mechanisms and Robotic Conference (MR)
- 28th Computers and Information in Engineering Conference (CIE)
- 20th International Conference on Design Theory and Methodology (DTM)

- 13th Design for Manufacturing and the Lifecycle Conference (DFMLC)
- 10th International Conference on Advanced Vehicle and Tire Technologies (AVTT)
- 5th Symposium on International Design and Design Education (DEC)
- 2nd International Conference on Micro- and Nanosystems (MNS)

This year, 875 papers were submitted to the 2008 IDETC & CIE, which is a record for an even-year conference. Technical paper sessions, as well as plenary sessions, keynote lectures, and tutorials on topics related to engineering design are being organized. Industrial participation is solicited and encouraged, and the interaction between the research and industrial communities will be strongly promoted during the conference.



The General Co-Chairs and the Program Co-Chairs (Qiaode Jeffrey Ge and Horea Ilies) are thankful to all conference organizers and ASME staff for their dedicated efforts.

On a lighter side, we are very excited about the conference evening reception, which will take place aboard a Spirit Cruise ship and will offer breathtaking views of New York City in a casual atmosphere. The New York Marriott at the Brooklyn Bridge is just across the river from Manhattan with easy access to all parts of New York City. We hope you get a chance to enjoy some of the many attractions of the city and have a great time. For details regarding the conference registration and hotel reservations, please visit the IDETC website. We look forward to welcoming you to New York in August, 2008. ●

National Manufacturing Week 2008

Zissimos Mourelatos, National Design Engineering Conference Committee Chair

The 2008 National Manufacturing Week (NMW) technical conference and show will be held in Rosemont, IL on September 22-25, 2008. It is sponsored by Canon Communications, LLC. ASME contributed a total of 7 technical sessions to the 2007 NMW. The Design Engineering Division sponsored 4 of these sessions. Each session involves a workshop or presentation relevant to industrial participants. Based on the current agreement between ASME and Canon Communications LLC, Canon distributes revenues to ASME and its divisions based on organized sessions and attendance.

According to a new agreement starting in 2008, the ASME Mechanical Engineering Magazine is now the primary contact with Canon, and there will be no revenue sharing with ASME participating divisions. Because of these changes and the lack of financial return to ASME, the DED Executive Committee decided in its March 2008 meeting to discontinue DED participation in the NMW. Despite this development, the Design Engineering Division encourages members to develop presentations for the NMW 2008. The chance to address the NMW audience of practicing engineers,

technical and mid-managers, and shop floor and plant supervisors is a great opportunity. This group represents a major portion of ASME's membership base, and as an organization we have an incentive to facilitate professional growth. Appropriate presentations may offer real, practical solutions to everyday design, manufacturing and management problems, providing ways to reduce cost and increase productivity, improve quality and reliability, make money faster and more efficiently, and provide avenues to grow professionally. More information can be found at <http://www.ManufacturingWeek.com>. ●

JOURNAL ACTIVITY REPORTS

COMPUTATIONAL AND NONLINEAR DYNAMICS

Subhash C. Sinha, JCND Editor



JCND is a quarterly journal that provides a forum for the exchange of new ideas and applications in computational rigid and flexible multi-body system dynamics and all aspects of dynamics associated with nonlinear systems. Toward the end of last year, **Prof. Henryk Flashner** (U of Southern California) started his 3 year term as an AE of the JCND. His expertise will be utilized in the areas of stability and bifurcation of dynamic systems and control of nonlinear and time-varying systems. **Prof. J. A. Tenreiro Machado** (U of Porto, Portugal) and **Prof. Albert Luo** (U of Southern Illinois) edited a special issue of JCND on Discontinuous and Fractional Dynamical Systems. I encourage you to choose JCND as the medium of dissemination of your research if it falls within the scope of the Journal. All manuscripts must be submitted electronically through the journal tool of ASME. All of us associated with the JCND are committed to a fair and rapid review process. And, please contact me directly if you have any comments or suggestions: ssinha@eng.auburn.edu. ●

COMPUTING AND INFORMATION SCIENCE IN ENGINEERING

Jami J. Shah, JCISE Editor



JCISE began publication at the start of the new millennium, recognizing the vital role that computing and information science play in mechanical product development and the rapid evolution of these technologies: Mechanical engineers are not just users of these methods and tools but are heavily involved in their development. JCISE provides a forum for publishing high quality archival research that falls at the intersection of engineering and computer science, including geometric modeling, computational metrology, computer aided manufacturing, and information science & management. In addition to full length research articles, we also publish papers in the Application Track representing innovations in software or data technology that have mechanical design or simulation implications. In the coming year we plan to publish two special issues: one on engineering informatics and the other on haptics in immersive environments.

This year ISI released impact factors for JCISE for the first time, and our impact factor of 0.531 puts us in the top 1/3 of our peers. I would like to take this opportunity to acknowledge the key role that our AEs play; to recognize our distinguished Advisory Board; and to

thank our reviewers for their time and effort in evaluating JCISE papers. I welcome comments, suggestions, and feedback from our readers so as to make continuous improvements to the JCISE. ●

MECHANICAL DESIGN

Panos Y. Papalambros, JMD Editor



In January we transitioned to a new Editor for JMD. In November 2007 the ASME Publications Committee approved my nomination submitted by then-Editor **Michael McCarthy** and the DED Executive Committee. The transition is now complete, although with several hundred papers in process, some coordination is still necessary. Mike has done an exceptional job in his editorial duties and has set a high mark for selfless performance. All of us in the community are grateful to him. The new ASME Journal of Mechanisms and Robotics (JMR), with Mike McCarthy appointed as the first Editor, will appear in 2008 and will accommodate some topics traditionally served by JMD, and thus offer JMD more space to be both more inclusive and more focused. We will be working with Mike to maintain journal excellence and quality service to the design community. This is an exciting and challenging time for mechanical engineering, for design, and for JMD. While the relevance of our traditional areas remains strong, emerging areas are claiming our attention increasingly and even urgently: “smart” and networked content, environmental impact, micro- and nano-level operation, bio-applications, energy sources and use, user interactions, and economic and policy implications of design decisions — to name a few. Mechanical engineering design is at the intersection of all these areas, and so also at a crossroads. I expect that JMD will be evolving in the years to come, following the solutions that our community offers to the emerging challenges armed with the rigorous, scholarly treatment that has always characterized JMD publications. I am grateful and honored to have the opportunity to serve the journal at this time, and I am particularly grateful to our dedicated AEs, who make JMD successful. ●

JOURNAL: MECHANISMS AND ROBOTICS

J. Michael McCarthy, JMR Editor

The Transactions of the ASME, Journal of Mechanisms and Robotics (JMR) is a new archival publication that documents fundamental research on the geometry, kine-



matics, dynamics, synthesis, analysis, manufacture, and control of mechanisms, machines, robots, and mechatronic systems with a view to advancing the state-of-the-art in theory as well as practice and to encourage innovation in the development of mechanical systems. The Journal began accepting submissions in January 2008 and is on track to publish its inaugural issue by September 2008. The Journal has nine AEs spanning a wide range of experience in mechanisms and robotics science and technology who are already busy managing reviews for over 15 submitted papers per month. They are **Suresh Ananthasuresh**, **Jorge Angeles**, **Jian Dai**, **Sundar Krishnamurthy**, **Vijay Kumar**, **Qizheng Liao**, **Jean-Pierre Merlet**, **Andrew Murray**, and **Frank Park**.

JMR will be published quarterly with about 20 papers per issue. The goal is to provide a venue for fundamental contributions to mechanisms and robotics research applied to mechanical systems found in automation, manufacturing, vehicle design, medicine and rehabilitation, micro and nano systems, and more. ●

MEDICAL DEVICES

Arthur Erdman, JMED Co-Editor



JMED is an exciting new venture offered by ASME with Co-Editors **Dr. Arthur Erdman** (U of Minnesota, Mech. Eng.) and **Dr. Gerald Miller** (Virginia Commonwealth Univ., Biomedical Eng.). This journal offers an important opportunity to our biomedical and design community to describe innovative devices used in the clinic and the laboratory that cannot be easily presented in other journals or venues. Papers in the Journal are expected to focus on applied research and development of new medical devices or instrumentation. The Journal will publish papers on devices that improve diagnostic, interventional and therapeutic treatments. Of particular interest are novel devices that allow new surgical strategies, new methods of drug delivery, or other devices that are intended to reduce the complexity, cost, or adverse effects of health care. Significant biomechanical, clinical, or engineering content is expected. The Design Innovation paper category is intended for reporting about novel devices for which there are less extensive clinical or engineering results. The March 2008 issue will mark the first full year of this Journal.

continued on page five

JOURNAL ACTIVITY REPORTS

continued from page four

We encourage you to submit a paper or subscribe to the journal. ●

VIBRATION AND ACOUSTICS

Kon-Well Wang, JVA Editor

During the past year, Bogdan Epureanu (U Michigan), Alan Palazzolo (Texas A&M), Massimo Ruzzene (Georgia Tech), Steven Shaw (Michigan State), and Weidong Zhu (U Maryland) were nominated and



approved as new AEs. With this new help, we are reducing the current AE workload and improving the paper handling/review time. To solicit high quality papers, the Journal has contacted the symposium organizers of the 2007 ASME Biennial Conference of Mechanical Vibration and Noise, asking them to recommend their best papers and invite the authors to submit an enhanced version to the Journal for a rigorous journal quality review process. We have received good responses. A special

issue on vibration-based structural health monitoring, with Guest Editors Bogdan Epureanu (U Michigan) and Mark Derriso (Air Force Research Labs), was published in December 2007. I encourage you to submit your research papers in vibration and acoustics to JVA. I also want to thank the authors, reviewers, AEs, and staff members who have contributed to make the past year another good one for JVA. Please feel free to contact me — I always welcome ideas and suggestions. ●

TECHNICAL COMMITTEE REPORTS

DESIGN AUTOMATION

Timothy Simpson, DAC Chair

The DAC promotes research and disseminates knowledge in 4 key areas related to Design Automation: Design Representation, Design Optimization, Design Evaluation, and Design Integration. For the 2007 IDETC, 172 papers were submitted to the Design Automation Conference (DAC), of which 125 were accepted. These papers were presented in 27 technical sessions in 3 parallel tracks at the conference. Dr. Matthew Parkinson (Penn State) and his graduate student, Mr. Christopher Garneau, received the Ford Motor Company Best Paper Award. Our DAC Keynote Speaker, Dr. Chris Unger (GE Healthcare) discussed thermo-mechanical challenges in diagnostic imaging and opportunities for related research. Two industry panels were also held at the conference: Joe Donndelinger (General Motors) organized a panel of recent graduates who discussed how their research prepared them for working in industry, and Dr. Wei Chen (Northwestern U) hosted a panel of industry, government, and academic experts to discuss verification and validation of analytical models. In 2007, Dr. Zissimos Mourelatos (Oakland U) was elected to serve on the Executive Committee as the Special Sessions Paper Chair for the 2008 IDETC DAC. For more information, visit the DAC website at <http://cdl.engr.uconn.edu/asmeda>. ●

DESIGN EDUCATION

Philip Doepker, DEC Chair

The DEC remains focused on advancing awareness and sharing experiences in mechanical engineering design. The 4th Symposium on International Design and Design Education was a success at IDETC 2007, thanks to Gul Kremer and a host of committee members. Mike Keefe, Jeffrey Mountain and Peter Jones are working on

the 5th Symposium for 2008, where Clive Dym will be the DEC Keynote Speaker. There will be over 8 sessions, including a revised Young Design Engineer's Paper Competition. Clive Dym and Phil Doepker were co-editors of the Journal of Mechanical Design's Special Edition on Design Engineering Education. Thanks to Mike McCarthy for recognizing Design Education as a new contributor to research. There will be changes within the DEC in 2008. A new chair will be selected, and new assignments will be made in a number of areas. Other steering committee positions available include Vice-Chair, Secretary / Treasurer, Conference Chair, and Paper Reviews Chair. We are also seeking volunteers to take over the Honors and Awards leadership, paper reviews chair, and coordinator for the Young Design Engineer's Paper Competition. Those interested in learning more about opportunities within the DEC are asked to contact Phil Doepker, U of Dayton; doepker@udayton.edu. ●

DESIGN FOR MANUFACTURING

Jeffrey Herrmann, DFM Committee Chair

The primary activity of the DFM Technical Committee is organizing the Design for Manufacturing and the Life Cycle (DFMLC) Conference at the IDETC. In recent years, the conference organizers have worked to increase the scope of the papers presented at the conference, especially in the areas of design for environment and other life cycle concerns. Edward Morse (U of North Carolina) and Peter Sandborn (U of Maryland) organized the 2007 DFMLC conference. Fifty-two papers were submitted, and 32 were accepted. Vijay Srinivasan, an expert from IBM on product lifecycle management, was the plenary speaker. For the 2008 DFMLC conference, Peter Sandborn will be the Conference Chair and Marcos Esterman (Rochester Institute for Technology) will be

the Papers Chair. The committee officers for 2007-8 are Jeffrey W. Herrmann (Chair), Edward P. Morse (Vice-Chair), and Kazu Saitou (Secretary). For more information, please contact Jeffrey Herrmann; (301) 405-5433; jwh2@umd.edu. ●

DESIGN THEORY AND METHODOLOGY

Michael J. Scott, DTM Committee Chair

The mission of the DTM Committee is to facilitate and enhance the development of design theories and the methods that grow from them. For IDETC 2007 we received 94 papers, of which 54 were selected for presentation. The 2007 DTM Best Paper Award went to Dan Frey, Paulien Herder, Ype Wijnia, Eswaran Subrahmanian, Konstantinos Katsikopoulos and Don Clausing for their paper, "An Evaluation of the Pugh Controlled Convergence Method." The Committee would like to thank Rob Stone and Li Shu for their able service as Conference Chair and Papers Chair, respectively. For IDETC 2008, Li Shu will serve as Conference Chair and Bob Paasch as Papers Chair. 2008 marks the 20th Annual DTM Conference. An exclusive DTM party at a NYC nightclub, with dinner included, is planned for the occasion. Conference attendees will be able to select the dinner in lieu of the usual awards luncheon as part of their conference registration. Further details will be sent out and posted on the DTM website as they are finalized. The DTM Committee welcomes the participation of all who are interested. For more information, visit the Committee's website at <http://function.basiceng.umn.edu/asmedtm>. ●

FASTENING & JOINING

Endel V. Iarve, F&J Committee Chair

The F&J Technical Committee serves

continued on page six

JOURNAL ACTIVITY REPORTS

continued from page five

ASME members and others who are interested in novel developments related to fastening, welding and adhesive joining of polymeric, metallic, ceramic and other advanced materials and structures. The 2008 IMECE F&J sponsored symposium, organized by Dr. Endel V. Iarve and Dr. Thomas J. Whitney (U of Dayton Research Institute) and Dr. Timothy Breitzman (Air Force Research Laboratory), is "Joining Technologies for Advanced Materials and Structures." The committee currently has about 12 active members and welcomes experts and distinguished researchers from industrial and academic fields. If you are interested in joining the committee or need further information, please contact Dr. Endel Iarve, U of Dayton Research Institute, (937) 255-9094; endel.iarve@wpafb.af.mil. •

MECHANISMS & ROBOTICS

Vijay Kumar, M&R Committee Chair

The M&R Committee has the mission of promoting advances in research and education in the theory, design and applications of mechanisms, machines, robots and mechatronic systems. Our flagship conference is the Mechanisms and Robotics Conference (M&R), the largest IDETC conference. Our main journal, until this past year, was the Journal of Mechanical Design. In the coming years, the new Journal of Mechanisms and Robotics will be the central journal for M&R. The 2007-8 year was active for the M&R Committee: We were responsible for the oversight and organization of the 2007 M&R Conference, which consisted of 2 keynote presentations, 8 symposiums featuring 139 papers, and student design competitions; We recognized Dr. Charles Wampler (General Motors) with the M&R Committee Award for cumulative contributions to the field of mechanism design and theory; We established the new ASME Journal of Mechanisms and Robotics, with Dr. Mike McCarthy as the founding editor; We built a new website that reflects the breadth of our activities and the excitement in our community; and we established a M&R Video Web-Portal. Submissions to this YouTube channel can be made through our Video sub-committee website: <http://macmotion.eng.sunysb.edu/ASMEM&RVideo>. •

MULTIBODY SYSTEMS & NONLINEAR DYNAMICS

Kurt Anderson, MSND Committee Chair

The mission of MSND is to foster experi-

mental, symbolic, computational and analytical activities pertaining to multibody systems, nonlinear dynamics and control, and other related areas. The committee organizes the Biennial International Conference on Multibody Systems, Nonlinear Dynamics and Control (ICMSNDC) at IDETC. Last year two new members, Prof. Eric A. Butcher (New Mexico State U) and Prof. Dan Negrut (U of Wisconsin), were elected to the technical committee. At the 6th ICM-SNDC the D'Alembert Award for significant contribution to the field of Multibody Systems was presented to Prof. Werner Schiehlen (U of Stuttgart). The Lyapunov Award for significant contribution to the field of Nonlinear Dynamics went to Prof. Francis Moon (Cornell). A new student paper competition will be held at the upcoming 7th ICMSNDC, to be held in San Diego, CA. Students working in the fields of multibody systems, nonlinear dynamics and control are encouraged to submit papers to this competition. •

POWER TRANSMISSION AND GEARING

Ahmet Kabraman, PTG Committee Chair

The PTG Committee organized the 10th International ASME Power Transmission and Gearing Conference at 2007 IDETC. A total of 116 papers were presented in 24 technical sessions by researchers from more than 20 countries. The Buckingham Lecture was given by Mr. William Bradley (American Gear Manufacturers Association). Prof. Donald R. Houser (Ohio State U) received the PTG Darle W. Dudley Award, given once every 4 years to honor a prominent power transmission and gearing researcher for outstanding contributions to the field. The PTG Committee will meet in April 2008 in Detroit to work on several scheduled committee tasks; among them, organizing the next PTG Conference at IDETC 2009. For more information, please contact Dr. Ahmet Kahraman, kahraman.1@osu.edu or visit <http://www.asmeptg.org>. •

RELIABILITY, STRESS ANALYSIS, & FAILURE PREVENTION

Erol Sancaktar, RSAFP Committee Chair

The RSAFP Committee participated in the 2007 IMECE with two sessions. The 10 papers presented included contributions from the U.S., Japan and Nigeria. The RSAFP Committee also had four sessions at the 2007 IDETC. The 21 papers presented included contributions from the U.S., Japan, China and the U.K. •

VEHICLE DESIGN

Corina Sandu, VDC Vice-Chair

The VDC promotes innovative analytical, computational, and experimental investigations in control, dynamics, and design of full vehicle systems and their subassemblies. Our members perform fundamental research, applied research, and successful technology implementations for light and heavy vehicle design, modeling, and validation. In 2007 VDC organized the 9th International Conference on Advanced Vehicle and Tire Technologies (AVTT), for the first time as part of the IDETC. The conference consisted of 7 technical sessions and attracted high quality technical publications and presentations. Prof. Imtiaz Haque, Prof. Corina Sandu, and Prof. Moustafa El-Gindy were recognized for their service to VDC and the 2007 AVTT.

In 2008 VDC elected Dr. Brian Gilmore (John Deere) as its new committee chair. Prof. Corina Sandu (Virginia Tech) will continue to serve as the vice-chair of the committee and as the Conference Chair of the 10th and 11th AVTT. Prof. Mohammad Elahinia (U of Toledo) was elected as VDC secretary and treasurer and will serve as Program Chair of the 10th & 11th AVTT. VDC is organizing the 10th AVTT under the 2008 IDETC. The Conference will consist of 5 symposia for a total of 10 sessions. New in 2008 will be two Best Paper Awards: The Best Paper Award for Excellence in Energy Efficient Powertrain Systems Research, sponsored by General Motors, and The Best Paper Award for Excellence in Testing and Experimental Vehicle Dynamics Research, sponsored by Kistler Instruments. •

VIBRATION AND SOUND

George T. Flowers, TCVS Chair

TCVS provides leadership for promoting research and disseminating knowledge in all areas related to mechanical vibration, acoustics, dynamics, and controls. TVCS organizes the IDETC Biennial Conference on Mechanical Vibration and Noise (VIB); sponsors sessions and lectures at the annual IMECE and other conference venues; and interacts with the ASME Journal of Vibration and Acoustics. The 21st VIB conference marked its 40th anniversary and covered topics from traditional areas to emerging technologies. The conference consisted of 255 papers, 22 symposia, 55 technical / poster sessions, and 2 keynote speakers: Dr. Daniel Inman delivered the Vibration Conference keynote and Dr. Fredric F. Ehrich delivered a keynote at the TCVS/VIB Awards Dinner. TCVS awarded the J.P. Den Hartog award to

continued on page seven

TECHNICAL COMMITTEE REPORTS

continued from page six

Daniel Inman in recognition of lifetime contributions to the teaching and practice of vibration engineering, and the N.O. Myklestad award to **Kon-Well Wang**, in recognition of a major innovative contribution to vibration engineering. **Kurt Anderson** and **George Flowers** are planning for the 22nd VIB at IDETC 2009.

TCVS sponsored sessions for a 2007 IMECE track on Mechanical Systems and

Control, organized by **Albert Luo**, **Carol Mei** and **Douglas Adams**, which accepted 243 final drafts. The committee is also involved in organizing several 2008 IMECE tracks in several symposia. TCVS is co-Sponsoring the Nonlinear Dynamics and Passive/Adaptive (NDPAC) Symposium at the new ASME Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS) Conference to be held at the Turf Valley Resort, Ellicott City, MD on October 28–30. The NDPAC

symposium is chaired by Chris Rahn, and the conference website is located at <http://www.asmeconferences.org/SMASIS08>

Members and friends interested in getting more information are invited to visit our web page at: <http://divisions.asme.org/ded/tcvs/tcvs%20pages> or contact **Prof. George Flowers**, Auburn Univ., (334)844-3330; flowegt@auburn.edu. ●

STANDING COMMITTEE REPORTS

HONORS AND AWARDS

Joseph K. Davidson, H&A Committee Chair
Georges M. Fadel, incoming H&A Chair

At the 2007 IDETC, **Dr. Steven Velinsky** (UC Davis) received the Machine Design Award for research contributions in the mechanical design field, including applied work on the development of machine elements and robotic systems for highway operations; and for professional leadership with ASME's Design Engineering Division and Systems & Design Group. **Dr. Panos Y. Papalambros** (U of Michigan) also received the Ruth & Joel Spira Outstanding Design Educator Award for significant contributions in establishing engineering design as a recognized discipline, advocating and propagating mathematical optimization as a practical design and product-development method, and integrating classical engineering intuition and modern analysis in team-oriented, open-ended design education.

As we look forward to 2009, the DED H&A Committee asks that you identify a qualified candidate for an award and submit a nomination. The deadline for receipt of nomination materials is January 15 for the ASME Society's Spira and Machine Design awards, and March 1 for the other awards; it is helpful in planning when a potential nominator gives some early notice about a nomination to the Chair of the DED H&A Committee. Division Awards include the Robert E. Abbot, Leonardo Da Vinci, and Ralph Barnett-Carl Uzgiris Awards, and several DED technical committees administer Division-Committee awards. Further information is available on the ASME website. For specific questions, please contact **Georges Fadel** at fgeorge@clmson.edu or at (864) 656-5620. ●

PUBLICITY AND NEWSLETTER

Jeremy J. Michalek, P&N Committee Chair

The wiki edition of the 2008 ASME DED

Newsletter is available again this year for DED members to view and add updates and additional information that did not fit into the print edition. Following the wiki spirit, all DED members are encouraged to contribute content to the wiki edition, which will remain as a living document for updates during the 2008-2009 year. Members can also sign up to receive email or RSS alerts when new information is posted. If you have suggestions on how I can make the wiki more useful to our community, please let me know or simply take a lead in editing the content directly. For more information, visit http://ddl.me.cmu.edu/ddwiki/index.php/DED_Newsletter or contact **Jeremy J. Michalek**; Carnegie Mellon; (412) 268-3765; jmichalek@cmu.edu. ●

STUDENT AFFAIRS

Matt Parkinson, SA Committee Chair

We are committed to integrating students into the ASME DED community. In particular we would like the students to become aware of the breadth of research activities in the DED and familiar with the people conducting them. The 2008 IDETC will feature special activities to provide opportunities for students to get involved. I encourage students to take advantage of these activities, and I encourage faculty and industry participants to reach out to students and welcome mentoring opportunities. The committee wishes to thank **Pierre Larochelle**, **Drew Murray**, and **Jim Schmiedeler**, our predecessors, for their excellent and longstanding efforts. ●

SYSTEMS AND DESIGN GROUP

Kenneth Waldron, S&D Committee Chair

The Technical Communities Operating Board is completing a reorganization that puts infrastructure in place to replace many of the functions of the old Council on

Engineering that have been uncovered in the 3 or so years since the Society moved to its current configuration. The new structure includes a set of operating boards and committees to cover functions important to our divisions, like journals, conferences and honors and awards. Further, the ASME Publications Committee, Conferences Committee, and Congress Steering Committee are being moved from the Programs and Activities Operating Board to the Technical Communities Operating Board. What this means is that the volunteer functions with which our divisions are most concerned will be accountable to the same operating board as the technical groups. If the above seems confusing, remember that under the "new" organization the divisions are organized into groups. The Design Engineering Division is in the Systems and Design Group that I currently lead. The groups are organized under the Technical Communities Operating Board (TCOB). The chair of that operating board is **Vice President Dan Segalman**. The TCOB, in turn, is one of several operating boards that come under Knowledge and Communities, led by **Senior Vice President Rich Laudanat**. Over the past 3 years it had become apparent that there was a weakness in the new organization at the group and Technical Communities levels. The divisions were largely cut loose to fend for themselves, and many important functions were not getting done. That is the motivation behind the current activity.

My term as Technical Leader of the Systems and Design Group ends June 30th, 2008. My successor will be **Joe Beaman**, who was elected at the Operating Board meeting at Congress in Seattle. Two members-at-large of the Operating Board were also elected. They are **Bharat Bhushan**, who will be in his second term on the board, and **Nejat Olgac**. I wish them every success in the coming 3 years. ●



Design Engineering Division

Three Park Avenue, New York, NY 10016-5990
<http://divisions.asme.org/ded/newsletIndex.html>

IDETC/CIE 2009

George Flowers, 2009 IDETC/CIE General Conference Co-Chair

The ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC/CIE) will take place August 30 - September 2, 2009 at the San Diego Convention Center in conjunction with the Omni San Diego Hotel. San Diego State University is the local host for the conference. San Diego is easily accessible from anywhere in the world and provides a near ideal combination of outstanding meeting facilities, beaches, beautiful California weather, and world famous attractions. The Conference will feature plenary sessions, keynote lectures, paper presentations, workshops, and tutorials on topics related to engineering. We encourage you to visit the conference web site for further information or contact the conference chairs. We welcome you to San Diego in August / September, 2009!

<http://www.rpi.edu/~anderk5/IDETC2009> •



San Diego Omni Hotel



San Diego Convention Center

Conference Co-Chairs

Prof. Kurt Anderson
Dept. of Mechanical
Aerospace and Nuclear
Engineering
Rensselaer Polytechnic Institute
Troy, NY 12180-3580
(518) 276-2339
anderk5@rpi.edu

Prof. George Flowers
Dept. of Mechanical
Engineering
105 Ross Hall
Auburn University
Auburn, AL 36849
(334) 844-4375
flowegt@auburn.edu

Conference Program Co-Chairs

Prof. Harry Dankowicz
Dept. of Mechanical Science
and Engineering
University of Illinois at Urbana-
Champaign
Urbana, IL 61801
(217) 244-1231
danko@uiuc.edu

Prof. Dane Quinn
Dept. of Mechanical
Engineering
University of Akron
Akron, OH 44325-3903
(330) 972-6302
quinn@uakron.edu

ASME Design Engineering Division

Executive Committee Roster, July 1, 2008 – June 30, 2009

Chair

Kazem Kazeronian, Ph.D.
Dept. of Mechanical Engineering
191 Auditorium Road, Unit-3139
The University of Connecticut
Storrs, CT 06269-3139
(860) 486-2251
kazem@engr.uconn.edu

Secretary

Vijay Kumar, Ph.D.
Dept. of Mechanical Engineering
and Applied Mechanics
University of Pennsylvania
Philadelphia, PA 19104-6315
(215) 898-3630
kumar@me.upenn.edu

Vice Chair / Treasurer

Ahmed A. Shabana, Ph.D.
Dept. of Mechanical & Industrial
Engineering
842 W. Taylor St. (M/C 251)
University of Illinois at Chicago
Chicago, IL 60607-7022
(312) 996-3600
shabana@uic.edu

NDEC Chair

Zissimos P. Mourelatos, Ph.D.
Dept. of Mechanical Engineering
111 Dodge Hall of Engineering
Oakland University
Rochester, MI 48309-4478
(248) 370-2686
mourelat@oakland.edu

Lashion Pettiford

Assistant, Engineering Programs
ASME International
3 Park Avenue, 22W3
New York, NY 10016
(212) 591-7387 • pettifordL@asme.org

IDETC Executive

Hamid Hamidzadeh, Ph.D.
Dept. of Mechanical Engineering
3500 John A. Merritt Blvd.
Tennessee State University
Nashville, TN 37209-1561
(615) 963-5387
hhamidzadeh@tnstate.edu

Past Chair

Judy M. Vance, Ph.D.
National Science Foundation
Civil, Mechanical and Manufacturing
Innovation Division
4201 Wilson Blvd, Room 529
Arlington, VA 22203
(703) 292-7060
jmvance@nsf.gov

Technical Committee Executive & IMECE

William W. Clark, Ph.D.
Dept. of Mechanical Engineering
and Material Science
University of Pittsburgh
Pittsburgh, PA 15260
(412) 624-9794
wclark@engr.pitt.edu

Staff Support

Richard Ulvila
Manager, Engineering Programs
ASME International
3 Park Avenue, M/S 23S1
New York, NY 10016
(212) 591-7863
ulvilar@asme.org

Newsletter Editor:

Jeremy J. Michalek
Dept. of Mechanical Engineering
and Dept. of Engineering &
Public Policy
Carnegie Mellon University
Pittsburgh, PA 15213
jmichalek@cmu.edu