

ASME Design Engineering Division General Committee Meeting
Minutes of the meeting on
Tuesday, September 1, 2009, 2:00-5:00 pm

Present: Kurt Anderson, Bala Balachandran, Wei Chen, Yangquan, Chen, Harry H. Cheng, Buddy Clark, Phip Doepker, Georges Fadel, Brian Feeny, George Flowers, Brian Gilmore, Shayne Gooch, Hamid Hamidzadeh, Ahmet Kahraman, Kazem Kazerounian, Gul Kremer, Harvey Lipkin, Jeremy Michalek, Matt Parkinson, Arvind Raman, Jahangir Rastegar, Kazuhiro Saitou, Li Shu, Ahmed Shabana, Jami Shah, Jamis Terpenney, Irem Tumer, Richard Ulvila, Judy Vance, Kon-Well Wang

1. **Call to order.** Ahmed Shabana called the meeting to order at 2:10 pm.
2. **Approval of minutes.** The minutes of the general Committee Meeting held on August 5, 2008 were unanimously approved.
3. **Report of the Executive Committee**
 - A. Shabana presented the Executive Committee Chair's report (oral and written). The Division is in great shape, both operationally and financially, DED was one of only two ASME divisions that received an A grade in the 2008 performance evaluation by the Technical Community Operating Board (TCOB).

New Committees

- A new technical committee, Mechatronic and Embedded Systems and Applications (MESA) Committee, was established.
- The Special Committee on "Innovation and Entrepreneurship" proposed by K. Kazerounian was approved in April 2009.
- The Special Committee on "Enterprise Study and Strategic Initiatives" proposed by K. Kazerounian was approved in the Executive Committee meeting on August 30th, 2009.

Elimination of Standing and Special Committees

- The Fellow Nominations committee (chaired by R. Hirsch) will be eliminated due to the lack of need.
- The terms of the chairs of K-12 Awareness of Design Engineering (K. Jacobson) and Professional Engineering Licensure (A.V. Karvelis) expired in June 2009. K. Jacobson agreed to serve for K-12 Awareness of Design Engineering for one more year. A proposal has been made to the Design Education Committee (DEC) to include K-12 Awareness of Design Engineering and Professional Engineering Licensure as subcommittees under DEC. G. Kremer (Chair of DEC) raised a few questions regarding the expectations from DED. She will bring up this proposal in the DEC committee meeting for discussion.

Review of the Executive Committee Meeting on August 30th, 2009

- DED is the largest ASME Division, posing new challenges in committee organization and conference management.
- A proposal was made by A. Shabana to establish the DED technical groups (clusters) in order to facilitate communications between the DED Executive and the DED technical committees. The proposal is being reviewed by the Executive Committee before being sent to technical committees.
- Alternatives were explored for better conference management. One suggestion was made to split the conference into two based on the proposed grouping of technical

committees. Another suggestion was made to make it a longer (4 day) conference, with two different starting and ending dates and some overlapping conference time in between.

- The proposal of holding the 2012 IDETC/CIE at Chicago (hosted by University of Notre Dame) was approved. Since the 2009 IDETC/CIE is very well attended, the award matching program will be considered by the Executive Committee.
- DED partially supported a workshop for women and minorities in 2009 IDETC, organized by the new Committee on Broadening Participation of Women and Minorities, led by Judy Vance and Janis Terpenney. The event was a big success.

4. Technical Committee and IMECE Reports

IMECE Report (W. Clark, both written and Oral)

The 2009 IMECE will be held in Lake Buena Vista, FL, November 13-19. The 2010 IMECE will be held in Vancouver, British Columbia, November 12-18. Track organizers should contact DED through their technical committees. All technical committees are encouraged to be more involved in organizing IMECE.

Technical Committee Reports

(a) Design Automation (K. Saitou)

K. Saitou presented a written and oral report. This year, 158 papers were submitted and 123 papers were accepted. The plenary talk by Dr. Stewart Coulter, DEKA research and Development, was very well attended. Two industry panels are organized.

(b) Design Education (DEC)

G. Kremer presented a written and oral report. IDETC09 marks the 6th year for the Design Education Conference. DEC received 33 submissions and accepted 20 papers. The Best DEC Paper award was established for the first time. The Journal of Mechanical Design now has an Associate Editor (Janis Terpenney) representing the DEC area.

P. Doepker and G. Kremer reviewed the Young Designers Competition organized by DEC. They questioned the current practice in which DEC has to provide 50% matching to fund this activity. They argued that the activity has broader impact and should benefit all committees in DED, therefore it should be fully funded by DED. The counter argument was that DEC initially launched the activity to help grow DEC conference attendance.

Action Item DEC will do an analysis to assess whether there will be enough papers for the committee to be self supported. Based on the analysis, DEC will submit a proposal regarding the future Young Designers Competition. DEC is encouraged to explore different options, e.g., organizing it through the standing committee to cover all divisions or organizing under DEC with funding support from DED.

(c) Design for Manufacturing and Life Cycle (DFMLC)

K. Saitou presented a written and oral report. The committee name has been changed to "Design for Manufacturing and Life Cycle" (DFMLC). The conference received 41 submissions and accepted 35 papers. A special session on "Kos Ishii Memorial DFM Contributions" was organized this year.

(d) Design Theory and Methodology

L. Shu presented a written and oral report. The conference received 97 submissions and accepted 51 papers. One Best Paper award was given in this conference. The 2010 conference leadership team and the new DTM officers have been elected.

(e) Fastening and Joining (E. Iarve)

No oral report was presented.

(f) Mechanisms and Robotics

J. Rastegar presented a written and oral report. The conference was successful featuring 8 symposiums and student design competitions. The conference program includes 137 technical papers selected from 165 submissions.

(g) Mechatronic and Embedded Systems and Applications (MESA)

H. Cheng presented a written and oral report and introduced Yangquan Chen as the incoming new Chair of MESA (effective after IDETC09). Before the committee was officially approved in April, 2009, MESA had organized its conferences for five years. This year's conference accepted 86 papers (about 70% acceptance rate). The committee has grown significantly during the past 4-5 years; every year the number of papers doubled. The committee sponsors 3 journals, 3 Best Papers (theory, computational method, application), and the Best Student Paper award. MESA plans for joining IMECE and organizing a student competition on mechatronics in IDETC2010. The committee appreciates \$2,000 start-up funds from DED during the past year and requests \$8,000 start-up funds in addition to regular revenue sharing this coming year from DED to sponsor awards. In response to this funding request, the Executive Committee suggested to MESA to focus on building a sustainable committee. The committee should determine the feasibility of attending multiple conferences and the target size. The proposal for funding request should be focused on the needs rather than requesting the share of past revenue.

(h) Micro and Nano Systems

A. Raman presented a written and oral report. This year's conference follows the successful first two years and features 59 papers grouped in 17 sessions.

(i) Multibody Systems and Nonlinear Dynamics (MSNDC)

B. Balachandran presented a written and oral report. The MSNDC2009 conference received 254 submissions of which 235 papers were accepted. The conference features many keynotes and invited talks. The Committee will sponsor the vehicle track in IMECE09.

(j) Power Transmission and Gearing

A. Kahraman presented a written and oral report. The committee sponsors a larger-scale international conference in the area every four years and a smaller mostly domestic conference in between. This year's PTG Conference as part of IDETC is the smaller conference. The conference accepted 35 papers out of 48 submissions. The committee Chair will be changed to Avinash Singh right after IDETC09.

(k) Reliability, Stress Analysis, and Failure Prevention (T. Sawa)

The Committee didn't submit either a written or oral report.

(l) Vehicle Design

B. Gilmore presented a written and oral report. The Advanced Vehicle and Tire Technologies (AVTT) conference features 5 symposia (6 sessions) with 33 papers this year.

(m) Vibration and Sound (TCVS)

B. Feeny presented an oral report on behalf of TCVS Chair C. Rahn. The conference in IDETC09 has over 200 papers submitted. IDETC2010 will be a limited, first time trial for TCVS at an even year IDETC. The committee has requested that DED initiates the process of elevating the Den-Hartog Award to the Society level.

Other Discussions

It was brought up during the discussion that the time of changing the committee Chair varies from one committee to another. This non-uniformity caused some problems in issuing award certificates and collecting committee reports.

5. **Liaison Reports - Journals**

K. Anderson reported that the proposed guidelines and timelines for turnover of DED journal Editor-in-Chief (EIC) are being reviewed by the Executive Committee.

(a) Journal of Mechanical Design (P. Papalambros)

No oral report was presented.

(b) Journal of Mechanism and Robotics (J.M. McCarthy)

No oral report was presented.

(c) Journal of Vibration and Acoustics (K.W. Wang)

K.W. Wang presented a written and oral report. The journal is experiencing an increasing rate of paper submission during the past few years. The attendees thanked K.W. Wang for his service to the journal, which will end by the end of 2009. Three (3) EIC candidates have been identified and are being reviewed by the Executive Committee. The vote will be carried out after IDETC09.

(d) Journal of Computational and Nonlinear Dynamics (S. Sinha)

No oral report was presented.

(e) Journal of Computing and Information Science in Engineering (J. Shah)

J. Shah presented a written and oral report. He first raised a complaint to A. Shabana that the sponsorship of DED to JCISE was not recognized in his speech in the DED lunch meeting. A. Shabana apologized and mentioned that the journals which are fully sponsored by DED are the ones which were mentioned. JCISE and Journal of Medical Devices are partially sponsored by DED. The journal submissions have been steady with no backlog. Current advisory board members of JCISE, A. Parkinson and B. Ravani, have served many years. JCISE seeks recommendations from the Executive Committee for new advisors. This will be the last year of J. Shah's service as the EIC. J. Shah expressed his concern about publishing the journal report/publication data as a part of the general committee report, to be posted at a public website. He thinks we are facing tough competitions from private publishers and some information should be treated confidential. It was agreed that only the non-confidential information in his report will be included in the published version.

Action item K. Anderson's Publication Committee will provide recommendations for two advisory board members for JCISE. K. Anderson also will contact J. Shah with regard to the nomination of the incoming EIC.

(f) Journal of Medical Devices (A. Erdman)

No oral report was presented.

6. **Vice Chair/Treasurer's Report.** H. Hamidzadeh presented the Vice Chair/Treasurer's Report (oral and written).

- The DED finances are in good shape despite the bad economic situation. The 2008 IDETC/CIE conference in New York was very successful with a profit of \$82,985.19. DED custodial account received \$31,096.24, and the DED Technical Committees received \$31,096.24 based on the number of papers.
- Award matching funds approved by DED on December 4, 2008 have been already allocated to the committee accounts.
- The discussion was centered on providing technical committees the access to account information.

Action item: H. Hamidzadeh will collect the names of treasurers of each committee and forward them to ASME.

7. **IDETC Technical Conferences**

H. Hamidzadeh presented the report on behalf of V. Kumar. All conferences appear to be on track with their planning of the required processes. The CA-1 form is being completed for 2012 IDETC/CIE.

- *2009 IDETC/CIE* (organized by K. Anderson and G. Flowers): The conference is very successful despite of the current downturn of the economy. 1,198 papers have been accepted out of 1,403 submissions. The reception, "A Night at the Ball Game," is a great success. Matthew Parkinson of PSU joined the conference organization effort and organized many interesting activities to enhance the student experience. An integrity issue associated with submitting multiple versions of the same papers by certain individuals from a particular overseas institution was reported.
- *2010 IDETC/CIE* (organized by P. Laroche and A. Murray): The conference is scheduled for August 15-18, 2010 in Montreal, Quebec (Canada).
- *2011 IDETC/CIE* (organized by N. Jalili): The conference venue will be at Hyatt Regency Washington on Capitol Hill, August 29-31, 2011.
- *2012 IDETC/CIE* (organized by M. Stanasic and J. Schmiedeler.): The proposal of holding the 2012 IDETC/CIE at Chicago (Host: University of Notre Dame) was approved.
- The 2009 IMECE will be held in Lake Buena Vista, FL, November 13-19. The 2010 IMECE will be held in Vancouver, British Columbia, November 12-18. Track organizers should contact DED through their technical committees.

8. **ASME Meeting Department** (R. Ulvila)

R. Ulvila presented the DED ASME Headquarters Report. DED has 11,139 Primary Members and 8,089 Secondary Members. DED is the largest ASME Division, over 10% large than the closest rival. John Delli Venneri has joined ASME on July 1, 2009, as Managing Director, Legal. The DED custodial balance beginning July 1, 2009 is \$372,039.32.

9. Standing/Special Committee Reports

(a) Constitution and Bylaws (L. Schmidt)

No oral report was presented.

Action Item: K. Kazerounian will follow up with A. Shabana to discuss activities of the Committee and ensure a timely update of the bylaws.

(b) Government Relations (I. Tumer)

I. Tumer presented a written and oral report. The report highlights research and funding opportunities offered by various government agencies such as NASA, NSF, DOE, DOD, and DOT. Attendees of the meeting thanked I. Tumer for this excellent report. I. Tumer was recommended to create a document that can be distributed to IDETC attendees, so that more people can benefit from the information provided in this report.

(c) Honors and Awards (G. Fadel)

G. Fadel presented a written and oral report.

- G. Fadel reviewed the committee members that judged the following division awards: Machine Design Award, Ruth & Joel Spira Outstanding Educator Award, Leonardo DaVinci Award, Barnett-Uzgiris Product Safety Award, and Robert E. Abbott Award.
- We need more qualified nominations for all the awards. We also need to replace some members on committee. Alan Parkinson has served on the committee for many years and needs to be replaced right away.
- G. Fadel reported the non-uniformity across technical committees with respect to the award amount, the formation of award committees, and the award selection process. Different turn-over times of committee chairs caused problems in issuing award certificates.
- It is recommended that G. Fadel appoint 3-4 committee members to assist his work.

(d) Nominating Committee (J. Vance)

J. Vance presented a written and oral report. Past year's nominating committee consisted of Shapour Azarm, J. Michael McCarthy, Chris Rahn, and Judy Vance (chair). J. Vance brought up the need of formalizing the process of filling the vacancy in the DED Executive Committee in the situation that an executive committee member has to terminate his/her service before the term expires for special reasons.

Action Item: J. Vance will prepare a proposal of the process of filling the vacancy mentioned above.

(e) USCToMM (H. Lipkin)

H. Lipkin presented a written and oral report. This year is the 40th anniversary of IFToMM, an international federation. The event was recognized with a celebration during the meeting of the Executive Council in Mexico on June 24 and 25. Kurt Anderson was elected as the second technical member from US serving on the IFToMM Technical Committee on Multibody Dynamics, in addition to Ahmed Shabana who is the first elected member from US.

(f) Design Society (W. Seering)

Wei Chen presented an oral report on behalf of W. Seering. The Design Society sponsors an array of design-related conferences each year. The International Conference on Engineering Design this year (ICED09) was hosted in US by Stanford University, one week before the IDETC09. The conference was a great success, which attracted 500+ attendees. Panos Papalambros is the newly elected advisory board member of the Design Society from the US in this conference. The need for better coordination of the dates of ASME IDETC and the Design Society ICED was brought up.

(g) Publicity and Newsletter (J. Michalek)

J. Michalek left the meeting earlier and was not able to present an oral report due to schedule conflict. He served on this committee for 3 years and requested a replacement. The committee thinks he has done an outstanding job for the DED newsletter and encouraged him to serve for one more term.

(h) Student Affairs (M. Parkinson)

M. Parkinson presented a written and oral report. A wide range of student oriented activities (e.g., student reception and return of the scavenger hunt) are organized this year. 450 students registered for the conference. Future plan includes co-organizing events with CIE student affairs committee. The committee thanked M. Parkinson for the excellent work.

(i) Information Management (S. Gooch)

S. Gooch presented a written and oral report. Activities have involved DED web page maintenance and assisting with supply of information for the transition of the DED web site to the new ASME structure.

(j) K-12 Awareness of Design Engineering (K. Jacobson)

No oral report was provided. A. Shabana mentioned that DED approved the \$1,000 funding request from K. Jacobson for the coming year.

(k) Broadening Participation of Women and Minorities (J. Terpenney)

J. Terpenney presented a written and oral report. Janis discussed the general goal of the committee and the most recent event of a workshop for women and minorities in IDETC09. The workshop attracted 54 participants including 31 graduate students. The event received \$10,000 funding support from DED plus NSF program matching. The committee thanked J. Terpenney for organizing a very successful event.

(l) Special Committee on Publications (K. Anderson)

K. Anderson presented a written and oral report. The proposed guidelines and timelines for turnover of DED journal Editor-in-Chief (EIC) are under revision and will be reviewed by the Executive Committee again.

(m) Innovation and Entrepreneurship (J. Rastegar)

J. Rastegar presented a written and oral report. This new committee was formed in March 2009, with three additional members serving on the committee. The future activities are to promote innovation and entrepreneurship in industry and academia and elsewhere.

K. Kazerounian introduced a newly approved Special Committee on Enterprise Study and Strategic Initiatives. This committee consists of individuals experienced in organizational management and strategies who will study the practices of our Division as well as other Divisions and Societies in order to provide advice and counsel to the Executive

Committee. Dr. Souran Manoocheri will be the Chair of this committee for a three-year term.

10. The meeting was adjourned at 5:25 pm.

Respectfully submitted,

Wei Chen
Secretary of the Executive Committee, Design Engineering Division