

ASME Technical Committee on Multibody Systems and Nonlinear Dynamics

Tuesday September 1, 2009, 6:00-8:00 p.m.
Room 29A, San Diego Convention Center, San Diego, CA

Minutes

Present: (Members) Kurt Anderson, Bala Balachandran (chair), Olivier Bachau (vice-chair), Eric Butcher, Jin-Hwan Choi, Harry Dankowicz (recording secretary), Tamás Kalmár-Nagy, Walter Lacarbonara, Aki Mikkola, Dan Negrut, Wan-Suk Yoo; **(Friends)** Amit Shukla, Yoshiaki Terumichi, Hiroyuki Sugiyama, Anil Bajaj, Rudranarayan Mukherjee, Oleg Bobrenkov, James Critchley, Andrew Dick, Pierangelo Masarati, Om Agrawal, Friedrich Pfeiffer, Werner Schiehlen, Zheng-Dong Ma.

Absent members: Alain Berlioz, Peter Eberhard, John McPhee, Christophe Pierre

1. **Call to order**

Meeting called to order by Bala Balachandran.

2. **Approval of minutes from last meeting**

A motion was made to approve the minutes of the last meeting of the Technical Committee on Multibody Systems and Nonlinear Dynamics on June 3, 2008 at The Inn at Virginia Tech, Blacksburg, VA. The motion was seconded and approved unanimously.

3. **Treasurer's report**

Information was shared with the committee regarding the account balances pertaining to the committee. Specifically, there is currently \$13,165.66 in the MSND Technical Committee account. The d'Alembert and Lyapunov Award accounts contain \$32,101.48 and \$32,075.78, respectively. There was a proposal from the DED to match amounts transferred from the committee account to the awards accounts up to \$5k per award for two awards or, if it was decided to establish an account for a student award, up to a total of \$10k. There was general support for this idea. Committee members also indicated support for establishing a student award account to allow for awards at the odd-year DETC meetings of a total of \$500.

4. **2009 MSNDC Report**

Kurt Anderson (conference chair) and Olivier Bauchau (program chair) reported on the 7th International Conference on Multibody Systems, Nonlinear Dynamics, and Control held between August 31 and September 2 as part of the 2009 Design Engineering Technical Conferences & Computers and Information in Engineering Conference in San Diego, CA. The conference included 22 minisymposia, a memorial technical session in honor of Prakash Krishnaswami, and two keynote sessions. Of the total of 253 abstracts submitted to the conference, 247 were accepted for submission of draft papers. Of the 242 draft papers submitted to the conference, 234 were accepted and published in the conference DVD proceedings. The umbrella conference attracted a total of 1315 attendees and 1200 full-length papers. MSNDC was the largest contributing subconference.

For the first time, the 2009 MSNDC included a student competition organized by Tamás Kalmár-Nagy with the assistance of Dan Negrut, Rudranarayan Mukherjee, Erik Butcher, and Sangram Redkar. Specifically, four submitted manuscripts were selected (out of nine contributions) to present their talks a second time in a special technical session. Three of these were selected for awards. The committee thanked the organizers for their effort. There was a general sense that having a separate session for the finalists was a good idea. Suggestions were made to reduce the number of awards to a single, best-student-paper award.

Some concern was raised by the committee meeting attendees regarding inconsistencies in the quality across the MSNDC symposia as well as a large number of no-shows in some symposia. Suggestions included a streamlining of the number of symposia and parallel tracks, mechanisms for impressing on reviewers expectations of quality, mechanisms for raising the visibility of quality manuscripts through a best-paper session. A clear consensus objected to the idea of an actual cap on the number of manuscripts.

5. **Journal of Computational and Nonlinear Dynamics**

Journal statistics provided by the technical editor, Subhash Sinha, were shared with the committee in the material sent out prior to the meeting. Colin McAteer, Manager of Journals Publishing at the ASME, indicated that the journal was in excellent condition. Although the citation statistics for individual articles are currently included in the Web of Science database, the journal was not included in the 2008 Journal Citation Reports and no impact factor is currently available.

6. **Sub-committee reports**

a. **Conference planning**

Bala Balachandran (conference chair) and Harry Dankowicz (program chair) reported on plans for the 8th International Conference on Multibody Systems, Nonlinear Dynamics, and Control to be held between August 29-31, 2011 (preceded on August 28 by workshops, tutorials, and meetings) as part of the 2011 Design Engineering Technical Conferences & Computers and Information in Engineering Conference at the Hyatt Regency Washington in Washington, DC. The general conference chair for the umbrella conference is Nader Jalili. Technical program co-chairs for the umbrella conference are Olivier Bauchau and Bogdan Epureanu.

b. **Member nomination**

Seven names were nominated for election to committee membership: Prof. Carlo L. Botasso, Politecnico di Milano, Italy; Prof. Javier Cuadrado, University of La Coruña, Spain; Prof. Andrew J. Dick, Rice University, USA; Prof. José L. Escalona, University of Seville, Spain; Dr. Rudranarayan Mukherjee, NASA Jet Propulsion Laboratory, USA; Prof. Yoshiaki Terumichi, Sophia University, Japan; Prof. Lawrence N. Virgin, Duke University, USA. Voting was postponed to the closed session at the end of the committee meeting.

c. **Publicity and information**

Zheng-Dong Ma and Om Agrawal were thanked for their past effort on behalf of the publicity subcommittee in maintaining and populating the committee website (currently at www.mkpsd.com/msnd). Their replacements, Eric Butcher and Dan Negrut, were tasked with putting together a proposal, to be presented electronically to the full committee during the fall, regarding further enhancements to the committee's web reach.

d. **Lyapunov and D'Alembert awards**

Ed Haug (d'Alembert) and Philip Holmes (Lyapunov) were the two awardees at the 2009 MSNDC. A call will appear in 2010 to solicit nominations for the 2011 d'Alembert and Lyapunov awards. Nominations for previously unsuccessful bids will be invited to resubmit with minimal changes to the nomination package.

e. **Sponsorship & industry/government**

The topic was not discussed.

f. **Fractional dynamics**

Om Agrawal informed the committee on the activities of the fractional dynamics subcommittee. These included a successful fractional derivatives symposium at the 2009 MSNDC with 34 papers, very large attendance, and only two no-shows.

7. **New business**

- a. The issue of even-year committee meeting was discussed at some length. Options for 2010 include the 13th Conference on Nonlinear Vibrations, Dynamics, and Multibody Systems with possible sites in Blacksburg, VA, or Tunisia and the 1st Joint International Conference on Multibody System Dynamics to be held in Lappeenranta, Finland, May 25-27, 2010 (www.imsd10.fi). The latter conference (co-chaired by Aki Mikkola and Werner Schiehlen and co-sponsored by the ASME, IUTAM, IFToMM, and KSME) currently has six scheduled keynotes, 15 sessions with two organizers per session, and approximately ten papers per session. No final decision was made regarding the even-year committee meeting.

- b. The committee again considered the possibility of a regular even-year conference, including the possibility of joining forces with TCVS for a presence at the even-year DETC meeting. It was the sense of the committee that such collaboration was welcome, but that its exact form remained to be determined. As an exploratory effort, for 2010, a special conference on Mechanical Vibration and Noise will be held as part of the DETC meeting in Montréal, Canada. The conference is sponsored by TCVS and supported by TC-MSND. The organizing committee includes Bala Balachandran and Harry Dankowicz. The conference will include a limited number of oral presentations supplemented, in the case of quality manuscripts, by a poster session. The committee decided to interact via e-mail on further discussions regarding even-year meetings.
- c. No site has been identified for the 2013 DETC meeting.
- d. It was recognized that the issue of even-year committee meetings and even-year conference were possibly related. The committee requested that the TC-MSND officers formulate a proposal for how to proceed.
- e. The committee were also made aware of discrepancies in the committee by-laws. A special subcommittee consisting of Walter Lacarbonara, Rudranarayan Mukherjee, and Harry Dankowicz (chair) was formed to formulate a proposal for revisions to the bylaws.

8. **Recognition of new ASME Fellows**

The committee recognized the honor of ASME Fellow bestowed upon Olivier Bauchau and Zheng-Dong Ma.

Members only

9. **Election of new members**

A vote by secret ballot was held to select three new members of the committee from among the seven nominees. The result of the vote was that membership was extended to Prof. Javier Cuadrado, University of La Coruña, Spain; Dr. Rudranarayan Mukherjee, NASA Jet Propulsion Laboratory, USA; and Prof. Lawrence N. Virgin, Duke University, USA. These memberships were to take immediate effect.