# American Society of Mechanical Engineers - Aerospace Division Adaptive Structures and Material Systems Technical Committee

Meeting at the

ASME International Mechanical Engineering Congress and Exposition Chicago, IL, USA November 7, 2006 7:30-9:30pm

#### **AGENDA**

- 1.0 Attendance and acknowledgment of visitors (Chris Lynch, Chair) Meeting began at 7:40pm.
- 2.0 Review and acceptance of minutes of committee meeting held at the 2006 SPIE Meeting, San Diego, CA. (Don Leo)

Minutes accepted pending changes submitted by Janet Sater. Arnold Lumsdaine was present at the 2006 SPIE meeting.

- 3.0 Membership Report (Don Leo)
  - 3.1 Circulation of Roster for Updating
  - 3.2 Friends of the Committee Listing
- 4.0 In Memory: Bill Armstrong (Chris Lynch)

A minute of silence was held to honor Bill.

Marcelo Dapino overviewed the special session to be held at the 2007 SPIE meeting.

- 5.0 Treasury Report (Zoubeida Ounaies)
  - 5.1 Status and update

The TC usually maintains a balance of about \$3500-4000. Zoubeida Ounaies overviewed sources of income and expenses. CSA Engineering, Inc. was thanked for their support of the TC; NextGen also pledged support for the TC. ASME/SPIE also provides \$2000. Approximately \$2000-\$3000 is spent on food at the TC meetings. The Adaptive Structures Prize and other awards total approximately \$2000. The TC needs to solicit support for additional expenditures, such as the Best Student Paper Award.

Chris Lynch shared with the TC discussions about resources in the ASME Aerospace Division. The Division has approximately \$28K in their account, some of which could flow back to the TC. It was suggested that the Division fund TC awards.

Action: Zoubeida Ounaies will send Don Leo the Treasury Report.

Item 13 was moved up in the agenda to accommodate participant schedules.

Diann Brei provided an overview of the work that she and Brian Sanders are doing in support of Victor Giurgiutiut's AFOSR program. Diann solicited input regarding this effort from all

members of the committee. The timeline for the process is approximately the next two months. Comments were to be sent to dibrei@umich.edu.

Diann also discussed the Newsletter that was sent out earlier this year. The response to the newsletter was very positive. It was sent out to a wide audience in AIAA and ASME. The newsletter will be sent out twice a year. ASME will organize the next newsletter. Anyone interested in providing an article please contact Diann Brei and Don Leo. There will also be a student spotlight section. Articles are being solicited for the newsletter.

#### 6.0 Reports on ASME IMECE

2006 ASMS Symposium: Mehrdad Ghasemi-Nejhad and Arnold Lumsdaine There are 16 sessions. Mehrdad provided the report: 14 sessions were from Aerospace; the remaining 2 were collaborations between our TC and the Transportation Division / Nanotechnology. We received 70 abstracts for 49 technical publications, 4 short papers, and 12 technical presentations.

2007 ASMS Symposium: Arnold Lumsdaine and Kara Peters Arnold L. will not be able to assist with the 2007 meeting. Mohammad Elahinia will step in as co-chair.

## 7.0 Reports on AIAA SDM

2006 Adaptive Structures Conference: Steven Griffin and D. Ambur are chairs. Vit Babuska gave the report. 8 sessions were spread out over two days; 60 papers were submitted.

2007 Adaptive Structures Conference: ?

D. Ambur and Carlos Cesnik are chairs.

94 extended abstracts were submitted. Only 9 or 10 sessions are available.

The 2008 meeting will be in Chicago in April. There is a plan to hold an adaptive structural control design competition at the 2008 meeting. There will be a \$1500 prize for the competition.

### 8.0 Reports on SPIE Symposium

2007 - Chair: Yoseph Bar-Cohen, Co-Chair: Alison Flatau

Alison Flatau is Chair in 2008; the co-chair for 2008 has not been decided. It was suggested to seek a nominee who is a member of both committees.

Alison Flatau gave the report. There was a major restructuring for the 2007 meeting. The submission rates have changed dramatically. Alison solicited the plenary speakers.

Diann Brei brought up the point that there is still significant overlap between certain symposia that are not run by this TC. Alison stated that some conference titles were changed in response to a perceived overlap in topics.

Chris Lynch reminded the group that there was an ad hoc committee formed at the last TC meeting that could be of service to reducing overlap between the topics.

Action: Alison Flatau will send Don Leo the numbers for the 2007 meeting.

8.1 Active and Passive Smart Structures and Integrated Systems

2007 - Chair: Yuji Matsuzaki, Co-Chair: Don Leo / Mehdi Ahmadian

2008 - Chair: Don Leo, Co-Chair: Mehrdad Ghasemi-Nejhad

Chairs for 2008 need to be discussed due to changes in the conference.

The chairs for 2008 will be Mehdi Ahmadian and co-chair will be Mehrdad.

8.2 Behavior and Mechanics of Multifunctional Materials and Composites

2007 – Chair: Marcelo Dapino, Co-Chair: Zoubeida Ounaies

2008 – Chair: Marcelo Dapino, Co-Chair: Zoubeida Ounaies

8.3 Industrial and Commercial Applications

2007 – Chair: Porter Davis, Co-Chair: B.K. Henderson / M.B. McMickell

2008 – Chair: Porter Davis, Co-Chair: ?

Pavel Chaplya volunteered as co-chair.

Action: contact Kyle Henderson and Porter Davis regarding their duties in 2008.

[Ed. Note: This action was reversed on 3/8/07 following a request by Porter Davis. Henderson and McMickell remain as co-chairs for 2008.]

8.4 Sensors and Smart Structures Technologies for Civil, Mechanical and Aerospace Systems

2007– Masayoshi (Tomi) Tomizuka and Victor Giurgiutiu and Chung Bang Yun

The same duties will apply in 2008.

8.5 Best Student Paper competition: Nakhiah Goulbourne

Nakhiah G. reported on the competition. Chris Niezrecki is the co-chair. We are currently soliciting sponsors for the competition. Sage and CSA are committed to sponsor the 2007 competition. The target for the sponsorship is \$1450; we still require an additional \$500. There have been 33 submissions.

9.0 Reports on International Conference on Adaptive Structures & Technology (ICAST) 2006 Taiwan, C.K. Lee

Roger Ohayon reported informally on the meeting. There were approximately 75 papers.

The next meeting will be in Ottawa (Chair: F. Nitsche)

Flavio C. from Italy will be organizing the 2008 meeting.

Follow up to discussion of change of venue issue and TC funding arrangement with SPIE 10.0 (Chris Lynch)

Our TC will have 10 fee waivers + \$2000. SPIE wanted a larger rejection rate (30%). They were discussing losing \$3-\$5 per participant. We will be moving away from the Town and Country in the future.

ASME has decided to reduce the cost of the IMECE meeting due to reorganization. They will go to 460 sessions in 2007 to 240 sessions in 2008. They would like our TC to continue organizing sessions. The goal is to enable the use of lower cost, smaller venues. They may be encouraging us to split off from IMECE and hold a separate focused conference in collaboration with another TC. It is not believed possible to have the meeting in 2007. Chris suggested that we work with ASME in 2007 and then plan for a separate meeting in 2008. An ad hoc committee was formed at the last TC meeting to examine financial aspects of the meeting. It was suggested to make plans for a change in the meeting organization in 2008.

Diann Brei provided an overview of the AIAA perspective. Diann indicated that there have been discussions about a meeting that focused on the larger issues in the field. There may be opportunities to restructure our meetings in the next few years.

Chris suggested that we also bring in the perspective of other technical committees with common interests.

Vit Babuska made the comment that the AIAA corporate viewpoint is that the focus of the meeting should be maintained on the aerospace.

Dan Inman indicated that there may be significant problems next year when they cut additional sessions.

H.S. Tsou commented that the ASME DETC meeting was looking for additional partners.

Mary Frecker proposed that we form a single committee to develop an action plan. The members would be the TC officers and the symposia organizers.

Diann Brei agreed that a single committee was preferential.

The committee is:

Greg W.

Diann B.

Don L.

Pavel C.

Janet S.

Alison F.

Chris L.

Kara P.

Mohammad E.

Nancy J.

Action: The committee will submit a proposal at the 2007 SPIE Technical Committee meeting.

Inderjit Chopra suggested that reduction in sessions may not be equal across the board. Our TC may not be asked to make the same cuts the other TCs.

Chris Lynch will find out more information tomorrow. Greg Washington suggested that we find out about ASME's new organizational process. Maybe we can take advantage of their new organizational structure.

#### 11.0 Honorific Subcommittee

11.1 ASME Adaptive Structures and Material Systems Prize (Dan Inman)

Dimitris Lagoudas and Dan Inman will run it this year. Dimitris Lagoudas will take over the responsibilities next year. Dan Inman solicited nominations for this year's prize. Nominations should be submitted to Dan Inman via email.

An operating procedure for the ASMS Prize was adopted (Chris Lynch)

Dan Inman proposed to change the membership of the committee to the last set of people awarded the prize and three nominees from the TC. The motion was passed. The new procedures will begin in 2007.

11.2 Nominations for the ASMS Best Paper Awards (Mary Frecker)
Structures and Structural Dynamics (Norman Wereley)
Materials and Material Systems (Pavel Chaplya)
Send nominations to Don Leo for the Best Paper Award.

11.3 Discussion of the Gary Anderson Prize (Mary Frecker)

Nominations for the Gary Anderson Prize are due Dec. 21, 2006. Nominations will also go to Don Leo. The nomination requires sending a CV. The first award will be given at the 2007 SPIE meeting.

Janet Sater proposed that there be a formal letter of recommendation (via email is acceptable) from the nominator. The motion passed.

11.4 ASME Fellow Nomination (Kon-Well Wang)

Kon-Well announced that Dr. Alison Flatau and Dr. Victor Giurgiutiu were awarded the status of ASME Fellow.

#### 12.0 Operating Procedures

12.1 TC Database (Diann Brei, Mehrdad Ghasemi-Nejhad, Don Leo, Greg Agnes, Marcelo Dapino)

Action Item: Take this item off the agenda.

- 13.0 AIAA Business (D. Brei)
- 14.0 Introduction of New Officers (Chris Lynch)
- 15.0 Selection of New Officers (Mary Frecker)

Marcelo Dapino was nominated and elected as Secretary. Zoubedia Ounaies was nominated and re-elected as Treasurer.

## 16.0 Nominations for new TC members

16.1	Dr. George Akhras	PASSED
16.2	Dr. Lisa Weiland	PASSED
16.3	Dr. Henry Sodano	PASSED
16.4	Dr. Eric Ruggiero	PASSED
16.5	Dr. Daniel Shin	TABLED
16.6	Willam Oates	<b>PASSED</b>

Terry Sanderson's CV was read and discussed. His nomination was passed. LeAnn Faidley was discussed as well. Her nomination was passed.

Daniel Shin will be considered at the 2007 SPIE meeting.

# 17.0 Adjourn

Meeting was adjourned at 9:40pm.