

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

Meeting at  
SPIE Smart Materials and Structures  
San Diego, CA  
Tuesday March 9<sup>th</sup>, 7:00 PM – 10:00 PM, Tiki Pavilion, Town and Country Hotel

**Minutes**

**Attendees:**

**Members-** George Akhras; Barbar Akle; Eric Anderson; Hiroshi Asanuma; Jayasimha Atulasimha; Diann Brei; Alan Browne; Constantin Ciocanel; Marcelo Dapino; LeAnn Faidley; Kevin Farinholt; Alison Flatau; Victor Giurgiutiu; Nakhia Goulbourne; Chris Henry; Dan Inman; Conor Johnson; Nancy Johnson; Shiv Joshi; Dimitris Lagoudas; Kam Leang; Don Leo; Jiangyu Li; Jonathan Luntz; Chris Lynch; Brett McMickell; Karla Mossi; Mehrdad Gasemi Nejhad; Chris Niezrecki; William Oates; Roger Ohayon; Zoubeida Ounaies; Gyuhae Park; Kara Peters; Lance Richards; Janet Sater; Henry Sodano; Lisa Weiland; Norm Wereley; Ed White; Andrei Zagrai.

**Visitors-** Xiaobo Tan; Massimo Ruzzene; Ken Cunefara; Oliver Myers; Kwang Kim; Thomas Wallmersperger; Michael Garcia; Hwan-Sik Yoon; Poorna Mane; Julianna Abel; Manuel Collet; Sujay Deshmukh; Jinsong Leng; Tzu-Yang Yu; Stefan Seelecke; Leslie Chirzan; Terry Johnson; Darren Hartl; Haluk Karaca; Uwe Marschner; Tribikram Kundu; Yirong Lin; Alper Ertuk.

- 0.0 Attendance and acknowledgment of visitors (Don Leo, Chair)  
Meeting started at 7:20pm by Don Leo.
- 1.0 Review and acceptance of minutes of TC meeting at SMASIS 2009 (Zoubeida Ounaies)  
Reviewed and accepted.
- 2.0 Membership Report
  - 2.1 Circulation of roster for updating (Zoubeida Ounaies)  
Roster was circulated for updating.
- 3.0 Treasury Report
  - 3.1 Status and update (Sergio Lucato)  
Sergio thanked members who donated their waived registration fees to make the dinner at the ASMS TC meeting possible. He also acknowledged our generous donors: CSA Eng, Teledyne and Next Gen, as well as the journal Smart Materials and Structures. Sergio has been in contact with ASME representative to get a better understanding of where our TC balance stands. He provided the attached balance sheet.
- 4.0 Update on Aerospace Division by Aerospace Division executive committee (Chris Lynch)  
Chris Lynch is the new chair of the Aerospace Division. The executive committee members are: Chris Lynch (chair), and Alison Flatau (co-chair). Chris mentioned that the position of treasurer is open and asked for volunteers. The function of the executive committee is to appoint members to award committee, run government relations committee, and oversee the various technical committees (TCs). Chris mentioned that one of the first tasks of his committee was to look into the leadership of the various TCs. Our TC (ASMS TC) is large and active compared to others. The discussion focused on our budget next and Chris agreed that a transfer of fund from the division to our TC is warranted and would help our TC to meet its various activities. Short term issues for the executive committee is gathering nominations for the awards. He mentioned that the Spirit of St.Louis award has so far 2 nominees: Victor Giurgiutiu and Ed White.

Finally, Chris suggested revisiting the bylaws and focusing on facilitating the operation of the division.

**Action items:**

1. Chris to request a transfer of \$3k from Aerospace division to ASMS TC.
2. Chris will talk to a smaller group to come up with a concept for how the TC and division will interact, and will send it to Don and members for comments. TC will get the resulting documents following that.

Next, Chris gave a brief report on the treasury, specifically related to SMASIS funds: first year SMASIS did well; the second year numbers are relatively down.

**Action item:** SMASIS report to the TC at the SMASIS 2010 conference.

5.0 Discussion of possible new structure of ASMS TC (Don Leo)

At the last meeting, we discussed the possibility of our TC moving to division status, motivated by the size of the TC and the fact that it is the most active one in the aerospace division. Don recommended letting the findings of financial subcommittee guide us into next step. Another possibility mentioned is having our TC interact with the aero division in a new way.

**Action item:** Discuss in detail at SMASIS 2010, coupled with item 6.0 below, at SMASIS 2010.

6.0 Report on Results of Financial Subcommittee Discussions (Janet Sater)

Based on last TC meeting, Janet is heading a subcommittee to look into issues associated with finances and give information to our TC. Attached are slides summarizing findings to date.

Committee recommendations are to be presented at next ASMS TC meeting- SMASIS 2010. Short term action is preparing an MOU to formalize financial relationship between division and TC.

**Action item:** Janet will work with Chris on that in the coming weeks and present it to TC next time.

7.0 Reports on SPIE Smart Structures/NDE conference

2010 – Chairs: Don Leo and Kara Peters; Co-Chairs: Norman Wereley and Norbert Meyendorf

2011 – Chairs: Don Leo and Kara Peters; Co-Chairs: Norman Wereley and Norbert Meyendorf

7. 1 Information on conferences and submitted abstracts:

	<b>Symposium</b>	<b>Chair</b>	<b>Co-Chair</b>	<b># of papers (as of 3/01/10)</b>
SSN03	Active and Passive Smart Structures	Ghasemi-Nejhad, Mehrdad N.	Mohammad Elahinia, Henry Sodano (change in chair; email tem to ask).	121
SSN04	Behavior and Mechanics of Multifunctional Materials	Ounaies, Zoubeida	Jiangyu Li/ Stefan will come in as co-chair.	90
SSN05	Industrial and Commercial Applications	McMickell, M. Brett	Kevin Farinholt (will take over as chair; no co-	33

			chair yet)	
SSN08	Smart Sensor Phenomena, Technology, Networks, and Systems	Peters, Kara J.	Wolfgang Ecke, Theodore Matikas	45
SSN07	Sensors and Smart Structures Technologie	Tomizuka, Masayoshi	Chung-Bang Yun, Victor Giurgiutiu, Jerome Lynch	173
	Symposium	Chair	Co-Chair	# of papers (as of 3/01/10)
SSN02	Electroactive Polymer Actuators and Devices	Bar-Cohen, Yoseph	Jinsong Leng	117
SSN06	Nano-, Bio-, Info-Tech Sensors and Syste	Varadan, Vijay K.	Jaehwan Kim, Kyo D. Song, Sang H. Choi,	64
SSN09	Nondestructive Characterization for Comp	Shull, Peter J.	Aaron Diaz, Felix Wu	74
SSN10	Health Monitoring of Structural and Biol	Kundu, Tribikram	Kumar Jata	125
<b>Total</b>				<b>842</b>

## 7.2 SPIE Best Student Paper competition: Nakhiah Goulbourne, Chris Niezrecki

7.2.1 Report from Chris N.: the student competition took place this afternoon (Tuesday; a switched from last year which was on Monday). Switch has been positive in terms of attendance. There were 51 submissions, with 7 disqualified papers (did not follow printed requirements). There were also only 4 finalists, instead of the usual 6. Chris thanked the volunteer judges, who were members of the TC. Marcelo recommended going back to the original list of students and getting 2 more students from there to end up with 6 finalists. Nakhiah G. said it was too late to do that, but will certainly consider it if the situation aroused in the future. Nakhiah G. also clarified that there was only one honorable mention this year because there were only 4 candidates.

7.2.2 Nakhiah G. proposed listing student presentation as one concurring event in the program (rather than a special event).

7.2.3 Chris N. is stepping down. Karla Mossi is to co-chair the competition. Nakhiah G. will stay on as chair for one more year.

## 8.0 Reports on ASME SMASIS

### 6.1 2010 ASME SMASIS (Diann Brei)

Diann reported on ASME SMASIS 2010, to take place in Philadelphia, PA. The location was partly chosen because ICAST 2010 will take place at Penn State the following week.

### 6.2 Student Events (LeAnn Faidley)

LeAnn gave details on the student paper competition details. There will be two competitions: standard paper competition, and student hardware competition. There is a need for committee members to help plan events and judges are needed for both events.

Don Leo commented that there is overlap as to what we see at SPIE and SMASIS. He suggested as action item to analyze and discuss how to differentiate the meetings.

**Action item:** Discuss possible overlap between SMASIS and SPIE at SMASIS 2010.

### 6.3 2011 ASME SMASIS (Diann Brei)

Diann is interested in getting suggestions for locations. Dimitris Lagoudas asked if universities could be locations for SMASIS. Possible hosts discussed but no decisions were made.

- 9.0 Reports on AIAA ASC  
 2010 Adaptive Structures Conference: Greg Reich and Norman Wereley  
 The conference was in Orlando, FL., 12<sup>th</sup> -15<sup>th</sup> April. There were 40 papers in the program (from a total of 48 submitted).  
 2011 Norman Wereley will chair and Ed White will co-chair.
- 10.0 Reports on International Conference on Adaptive Structures & Technology (ICAST)  
 2010 – Penn State University, George Lesieutre. Roger Ohayon informed the TC that ICAST 2011 will be in Greece, hosted by Dimitris Saravanos.
- 11.0 Honorary Subcommittee
- 11.1 ASME Adaptive Structures and Material Systems Prize (Dimitris Lagoudas)  
 Subcommittee collected nominations and took votes. This year's winner is Jay Kudva from NextGen. Dr. Kudva will give the keynote presentation at SDM in April. Dimitris stressed that nominations are accepted at anytime, and that shortly after SMASIS 2010, he will begin to actively collect names, with end of nomination period coinciding with the end of the year.
- 11.2 Nominations for the ASMS Best Paper Awards (Marcelo Dapino)  
 Marcelo acknowledged Norman Wereley and Pavel Chaplya for their hard work. Marcelo shared details on the prizes and eligibility criteria. Need the names from Marcelo of winners.
- 11.2.1 Structures and Structural Dynamics (Norman Wereley)  
 2010 winners: Ying Shan, Michael Philen, Amir Lotfi, Suyi Li, Charles E. Bakis, Christopher D. Rahn and K.W. Wang, "Variable Stiffness Structures Utilizing Fluidic Flexible Matrix Composites," *Journal of Intelligent Material Systems and Structures*, 20:443, 2009
- 11.2.2 Materials and Material Systems (Pavel Chaplya)  
 Daniel Christ and Stefanie Reese, "A finite element model for shape memory alloys considering thermomechanical couplings at large strains," *International Journal of Solids and Structures*, 46, 3694–3709, 2009
- 11.2.3 New Subcommittee Chair for Best Paper in Materials: new subchair should be appointed at the time of SMASIS 2010.
- 11.3 Gary Anderson Award (Marcelo Dapino)
- 11.3.1 Discussion on amendment of eligibility criteria:  
 Bylaws state that nominee must be within 7 years from terminal degree. Change to 7 calendar years. Marcelo will circulate and discuss by email then make final decision at SMASIS 2010. Chris made a motion to accept proposal at current meeting. The motion was accepted and changes agreed upon as of SPIE 2010.
- 11.3.2 Announcement of this year's winner: Dr. Mohamed Elahinia from Univ of Toledo. The award presentation is at SMASIS 2010.
- 11.4 ASME Fellow Nominations (Greg Carman): Two people are being considered for fellow nominations. Report on the results will be presented at SMASIS 2010.
- 12.0 AIAA Business (Diann Brei)
- 12.1 AIAA/ASME joint newsletter (Diann Brei): newsletter is done and Marcelo has it.
- ASME/AIAA database (Marcelo Dapino) : database is broken, with hundreds of bounces. Marcelo requested help to fix it, and update it.  
**Action item:** need to get a volunteer to go through the database and eliminate old emails.
- 13.0 TC web site report (Kam Leang): Kam thanked Sergio for getting the domain and Norman Wereley for sending updates. Kam then showed the website and requested updates from members to keep the website relevant.

- 14.0 Nomination of new TC members:
  - 14.1 Hwan-Sik Yoon (nominating member: Greg Washington): presented and approved.
  - 14.2 Haluk Karaca (nominating member: Zoubeida Ounaies): presented and approved.
  - 14.3 Thomas Wallmersperger (nominating member: Don Leo): presented and approved.
  
- 15.0 Adjourn