

American Society of Mechanical Engineers - Aerospace Division
Adaptive Structures and Material Systems Branch

Meeting at
SMASIS 2012
Stone Mountain, GA
Wednesday, Sept. 19, 2012 from 7:30-10:30pm in Rotunda

AGENDA

Present Members: K. Adachi, P. Alexander, S. Anton, H. Asanuma, J. Atulasimha, D. Brei, A. Brown, M. Collet, K. Cunefare, M. Dapino, D. Doyle, E. Dragoni, M. Elahinia, A. Erturk, L. Faidley, M. Frecker, N. Goo, N. Goulbourne, D. Hartl, D. Inman, N. Johnson, B. Keifer, D. Lagoudas, J. Leng, S. Lucanto, J. Luntz, C. Lynch, U. Marschner, O. Myers, H. Naguib, W. Oates, R. Ohayon, Z. Ounaies, M. Philen, W. Reynolds, E. Ruggiero, S. Seelecke, H. Sodano, V. Sundaresan, N. Wereley, O. Bilgen, M. Daqaq, U. Zangrilli

Visitors: P. Tarazaga, S. Sarles, J. Gao, C. Marqui, J. Su, G. Krishnamoorthy, N. Sepulveda, E. Freemon, J. Koo, H. Feigenbaum, Y. Tummala, I. Anderson, R. Smith, K. Loh, R. Swartz, A. Sarles, J. Su, P. Tarazaga, T. Turner, G. Wang, Y. Wang

- 0.0 Marcelo Dapino started the meeting at 7:36 by acknowledging the members and visitors.
- 1.0 Minutes of Branch meeting at SPIE 2012 were approved.
- 2.0 Membership Report
 - Mohammad gave a brief report on the membership followed by circulation of the roster for updating. The branch has 101 members and 14 friends.
- 3.0 Treasury Report
 - Zoubeida Ounaies presented (attached) Lisa Weiland's report. Zoubeida acknowledged the Aerospace Division for covering the cost of refreshments for the meeting. ASME fiscal year is July 1 to June 30. For FY 2012 the starting balance was \$3436, the end balance was \$1324 with the following expenses and incomes: \$4500 awards expense, \$170 dividend income, \$11 plaques and certificates expenses. Regarding future finances of the Branch and its financial independence, discussions started at the SPIE 2012 Branch meeting were revisited. Specifically a memorandum of agreement draft between the Branch and the Aerospace Division was voted by the Branch regarding SMASIS revenues, where a split of 20% to the Division and 80% to the Branch was proposed. The 80-20 split was discussed between the Division and Branch, and with members present at the SPIE 2012 Branch meeting. The memo draft will be finalized by the Branch executive committee and sent to the Aerospace Division for their recommendation.

The typical yearly cost of the Branch is \$4500 for awards and related expenses. The incomes include the \$2000 from SPIE and Division ad hoc contributions. The 80% income from SMASIS, once approved by the Aero division, will be deposited in the Branch's custodial account and will be another source of income for the Branch.

Lisa Weiland has stepped down as the treasurer. The Branch members indicated their appreciation for her service with a round of applause.

- 4.0 Update on Aerospace Division by Aerospace Division Executive Committee Chair (Diann Brei): In a presentation Diann (attached to the report) provided the following information: Division has started the process to endow Adaptive Structures Prize and will next endow Gary Anderson Award. ASME has merged the support staff for conferences and Branch. Mary Jakubowski is Branch's point of contact with ASME. All conferences including ASME logo only (SPIE, AIAA, ICAST) must be put into EPAT approval process. The bylaws for the Division have been approved. For 2012-2014 Diann Brei and Norm Wereley are the chair and vice chair of the Aero Division executive committee.

Marcelo Dapino (2011-2014) and Mary Frecker (2012-2015) are the Adaptive Structures Smart Materials Branch representatives. Greg Odegard (2010-2013) and James Chenoweth (2011-2014) are Aerospace Systems Branch representatives. Several committees within the Aero Division have formed and need volunteers. Branch members can send an email to Diann Brei if they are interested to serve.

5.0 Status of Branch's Technical Committees (Marcelo Dapino): Dapino announced the formation of six TCs and asked for volunteers to sign up for one or more TCs. Each TC chair provided an introduction and asked volunteers to join according to their interest. The committees and their chairs and co-chairs are as follows: Structural Health Monitoring (Oliver Myer and Andrew Swartz); Adaptive Systems Dynamics and Controls (Mohammad Daqaq and Eugenio Dragoni); Active Material Technology and Integrated Systems (Eric Ruggiero and Ganesh Krishnamoorthy); Bio-inspired Structures and Systems (Michael Philen and Vishnubaba Sundaresan); Active Materials and/or Multifunctional Materials (Travis Turner and Hani Naguib); Energy Harvesting (Alper Erturk). TC meetings will take place at SPIE and SMASIS and will be coordinated through the Branch.

6.0 Update on SPIE Best Student Paper competition (Karla Mossi and Constantin (Cornel) Ciocanel): Zoubeida provided a brief report for Karla and Cornel: the number of entries was up to more than 40. Also, the competition was held in parallel with other sessions, and was very successful. The two co-chairs would like to thank the judges. Looking forward to SPIE 2013, the co-chairs encourage all students to compete.

7.0 Report on SMASIS conference (Stefan Seelecke):
2012 Conference General Chair: Stefan Seelecke; Conference Technical Chairs: Nancy Johnson and Andrei Zagrai
2013 Conference: Nancy Johnson General Chair; Technical Chairs Andrei Zagrai and Ralph Smith
Stefan provided a report on the 2012 SMASIS; A new symposium was added on energy harvesting as well as a guest symposium on DARPA Structural and Material Logic Program. There were two students activities: best paper and best hardware competitions. The numbers for 2012 are: 330 abstract submitted, 22 rejected, 232 technical papers, 56 presentation only, 20 invited presentations, a total of 308 papers/presentations. Stefan mentioned that this number might be the upper limit to be able to keep the friendly atmosphere of the conference.

Nancy as the general chair of the 2013 SMASIS conference started by acknowledging Stefan and the symposia chairs; she then shared that next year's conference will be held Sep 17-19 at Snowbird, UT; important due dates: March 21 for abstracts and May 27 for papers.

LeAnn Faidley provided a report on students' best paper award: 30 participants from 22 institutions 17 of which are international institutions; with 25 judges 12 of whom were young professionals.

Whitney Reynolds reported that for hardware competition there were 7 entries, networking lunch and student outing is tonight, bingos and trivia lunches are organized by students in addition to the game night students were acknowledged, the outreach did not take place this year with all the efforts to bring three high schools students to the conference,

8.0 Report on SPIE Smart Structures/NDE conference (Don Leo): Norm gave the briefing on behalf of Don. He mentioned that the abstract submission was extended to Sep 14 and the website is still open; last year there was more than 800 papers and more than 960 attendees.

2012/2013 – Symposium Chairs: Norbert Meyendorf and Norman Wereley; Symposium Co-Chairs: Victor Giurgiutiu and Chris Lynch
2013/2014 – Symposium Chairs: Victor Giurgiutiu and Chris Lynch; Symposium Co-Chairs: TBD

9.0 Report on AIAA Adaptive Structures Conference
 2012 – General Chair: Ed White; Technical Chair: David Gracheck (Honolulu)
 2013 - General Chair: David F. Voracek; Technical Program Chair: Ratneshwar (Ratan) Jha (Boston)

10.0 Report on International Conference on Adaptive Structures & Technology (ICAST)
 2012 – Chair: Jinhao Qiu, Co-Chair: Horn-Sen Tzou (Nanjing, China)
 2013 – Chair Nakhiah Goulbourne, Co-Chair: Dan Inman (Aruba)

11.0 Honorific Subcommittee
 11.1 ASME Adaptive Structures and Material Systems Prize (Report by Dimitris Lagoudas): Dimitris mentioned that Norm Wereley is the recipient of this year's award. Additional use is that Norm will be coordinating the award with a subcommittee of the last 5 recipients. Nominations can be sent to Norm Wereley by end of November.

11.2 ASMS Best Paper Awards (Report by Zoubeida Ounaies): At SPIE the announcement was made that the awards will be given out to winners at SMASIS. Nominations are open for papers that appeared in calendar year 2012. Nominations can be sent to Mohammad Elahinia (as the elected co-chair of the Branch) or to the chairs of the two subcommittees (see below) with the PDF of the papers. Marcelo mentioned that the nomination should be sent by December 31st. Norm and Nakhiah were thanked for their service as chairs of the subcommittees. Norm Wereley is stepping down and Wei Hsin Liao will take over as chair of the subcommittee for the Structures and Structural Dynamics subcommittee.

11.2.1 Structures and Structural Dynamics (Report by Wei Hsin Liao): Wei Hsin could not be at the meeting so Zoubeida reported on his behalf. She announced the winners of the prize as B. Woods, C. Kothera, and N.M. Wereley, Wind Tunnel Testing of a Helicopter Rotor Trailing Edge Flap Actuated via Pneumatic Artificial Muscles, Journal of Intelligent Material Systems and Structures vol. 22 no. 13 1513-1528 September 2011

11.2.2 Materials and Material Systems (Report by Nakhiah Goulbourne): The winners are Fei Gao and Lisa M. Weiland, Streaming Potential Hypothesis for Ionic Polymer Transducers in Sensing: Roles of Ionomer State and Morphology, Journal of Intelligent Material Systems and Structures vol. 22 no. 14 1623-1630 (September 2011).

11.3 Gary Anderson Award (Report by Zoubeida Ounaies)
 10.3.1 Recognition of this year's winner: William Oates 2012 awardee, the award will be given at the SMASIS banquet.
 10.3.2 Soliciting of new nominations: The nominations are accepted, send to Mohammad Elahinia by Dec 31st.

11.4 ASME Fellow Nominations (Don Leo): Mohammad gave the report that there are two candidates under review. Don should have an update by SPIE.

12.0 AIAA Business (Norm Wereley): Norm indicated that there is nothing to report.

13.0 AIAA/ASME joint newsletter (Diann Brei): Sergio prepares the newsletter; articles are due by end of December. TCs are writing a paragraph each to be featured in the newsletter. Spotlight input should be sent in by end of December. International and industrial items are needed. Diann and Sergio reminded members that 6000 members of the Aerospace Division receive the newsletter, in addition to AIAA database with a total of 10,000 recipients.

14.0 Branch web site report (Kam Leang): Kam was not able to attend so Sergio Lucato presented the report. Sergio mentioned Kam handles the website, which is moving to Wordpress, where one can have individual access to sub-pages. This move will make the updating task easier. We have a limit of sending 250 emails per day with the current free list-serve. We have a Facebook and a LinkedIn page. We need volunteer to manage those pages. Zoubeida mentioned that Barbar Ackle volunteered to manage the LinkedIn group. The server is free and to upgrade will cost \$60 per year. The new server will allow for wider distribution of emails. Diann mentioned that the Division will cover the cost. Marcelo asked new members to volunteer.

15.0 Contingency procedure for appointment of the Branch officers (Marcelo Dapino): In the past, officers were selected every two years. At the recent SPIE, members voted to change the mechanism to accommodate formation of the Branch, the six TCs and transition of officers to the Division. This new plan is recorded in the SPIE 2012 meeting notes. There is however a need for a contingency plan. This year, for example, the treasurer has declined to ascend. Motion was made by Marcelo as an amendment to existing process: if the treasurer is not able to ascend, the current secretary has the choice to ascend to the co-chair position if interested and available. If this is not accepted we will vote for a new person as a co-chair. Chris Lynch mentioned that secretary is not a selected by vote and therefore does not make sense that this person becomes the co-chair and later ascend to the chair who will have influence on matters such as the money of the Branch. His suggestion is to hold an emergency election. Marcelo mentioned that we need a motion to amend the bylaws and that the ascension of secretary was always the case before the recent changes. Mohammad Elahinia was voted in as the secretary in 2010. Zoubeida mentioned we are going through a transition and the other issue is the long-term issue of the voting. Ken Cunefare mentioned there should be open nomination and voting if vacancy happens as the alternative motion. Chris made the motion: vote today for the co-chair and for the future if needed the nomination will be done prior and voting happens in the first meeting. Marry mentioned that the solution is good and we need a procedure, however this should only apply to treasurer position if the chair steps down co-chair should step up. Chris agreed this was his intention. Ken mentioned the second motion should be amended at lower position will be voted upon and ascension will happen. Norm mentioned the second motion should be that we should change the bylaw later. Marcelo agreed that this is better. Motion said the only motion one is to have a vote for electing a co-chair and motion two is to start process of changing the bylaws. There was a motion from Chris Lynch seconded by Ken. Everyone voted yes to have a vote for the co-chair.

15.1 Ascension of Branch Chair (Marcelo Dapino) Zoubeida ascended to the chair and thanked Marcelo for two years of leadership through the transition from TC to Branch and for his many years of service to the community.

15.2 Ascension of Branch Co-Chair (Zoubeida Ounaies): As per discussion above, Chris Lynch nominated Mohammad Elahinia for co-chair. There was no other nomination. Mohammad stepped out and a vote was taken. A yes vote was unanimous. Mohammad was invited back and congratulated on his new position.

15.3 Appointment of Branch Secretary (Zoubeida Ounaies): Nomination are sought for secretary. If interested please email Mohammad or Zoubeida.

15.4 Vote on Branch Treasurer (Zoubeida Ounaies): Zoubieda mentioned that there is one nomination for the position. Additional nominations from the floor were requested. In the absence of other nominations, William Oates was the only nominee. William Oates stepped out and a vote was taken. All members voted him as a treasurer.

16.0 Nomination of new Branch members: visitors and nominees were asked to leave. Ken last name? motioned to approve all the nominees; the motion was seconded by Chris Lynch, and approved by all through a voice vote. Congratulations to the new members below (in parenthesis is the name of the nominating member).

16.1 Andy Sarles (Sundaresan)

16.2 Ji Su (Asanuma)

16.3 Pablo Tarazaga (Phillen)

16.4 Travis Turner (Brei)

- 16.5 Gang Wang (Wereley)
- 16.6 Ya Wang (Inman)
- 17.0 Ken moved to adjourn; motion was seconded by Chris. All members approved. Meeting was adjourned at 10:35