

Minutes of the Executive Committee Meeting of the Sensor Division of the ECS
Phoenix, AZ, 05/18/2008

Meeting called to order by Rangachary Mukundan at 8:05 pm

In attendance:

Rangachary Mukundan, Jing Li, Peter Hesketh, Joe Stetter, Mike Carter, Alex Simonian, Zoraida Aguilar and Katalin Voros.

1. The minutes from the last meeting in Washington were approved.
2. Treasurer's Report:

Custodian account:

To Date: Balance = \$59,065.00

Last meeting: Balance = \$56,235.79

Outstanding Achievement award account:

To Date: Balance = \$

Last meeting: Balance = \$4,459.28

Membership numbers dropped down from 558 in 2004, to 291 and 232 in 2005 and 2006 respectively. This was the results of forcing the members to choose only 1 Division for voting purposes. The membership numbers are starting to rise again with 240 members in 2007 and 249 members in 2008. These are only primary memberships.

3. Phoenix meeting activities:
 - a. 2 Symposiums: Primary (Electrochemical Nano/bio sensors on Monday and Tuesday, General Session on Wednesday and Thursday; Acoustic wave sensors was rolled into general session) Room 105B, 100 Level, Phoenix Convention Center.
 - b. 2 Symposiums: Co-sponsor (Carbon Nanotubes and Nanostructures: Applications and Devices, Exploiting Magnets and Magnetic Fields in Electrochemical Systems and Devices)
 - c. Sub committee meetings (Interface, Symposium planning, and Individual membership)
4. Executive Committee membership

Web site has been updated and the following Members-at-Large have been added.

1. Cindy-Bruckner Lea
2. Joe Stetter
3. Peter Hesketh
4. Tony Rico

5. Committees/Reports

Rangachary Mukundan 3/14/08 2:49 PM
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- a. Interface magazine: Peter Hesketh.
Ground breaking issues. Seminal papers. Review, Ask authors to write. Come up with seminal sensor papers to look at. 2 issues in 2009. Peter, Joe, Jing Li, Zoraida, Mike, and me. Peter will co-ordinate.

Sensors is young member so may not have 100 years...sensor division grew out of Physicalsome early JECS papers may work in the 40s and 50s....as far back as 1902...earliest ClarkJoe Stetter knows some details....Jing said ask Art Janata since he was doing the reviews...

Ground breaking work in bio-potentiometry, Clarke's Oxygen sensors etc. Peter will look at citation index and solicit the help of the Executive committee. Peter will send out the list to the Executive committee when he gets it.

IEEE has outreach for students, maybe we can have outreach. IEEE has 4000 members. ECS has outreach in high schools. Maybe we can co-ordinate one of these with a student chapter say at Georgia Tech. Visit a MEMs lab. Peter, Joe and Mukund will see if this can benefit us and look at it and do something.

Strategic Plan for the ECS publication implemented, reduce page charges over the next 5 years, change member access policy to 100 downloadable articles per year; tired pricing based on institutional ranking and also world bank ranking of countries. Consultant hired to improve circulation, revenue and citation with minimal inconvenience to the membership (Members currently get unlimited access of all journals as part of member benefits)

Divisions not participating equally in Transactions publications in terms of papers and abstracts. People are not doing as much; been going on for 4 years; Sensors has been doing it but we are minority compared to other groups. Have to advertise it better.

Sensor Division is to be featured in the winter 2010 issue of Interface. The last time (summer 2004) we did the following articles:

- Our Featured Division: Sensor by C. J. Bruckner-Lea
- Chemical Microsensors by C. C. Liu, P. J. Hesketh, and G. W. Hunter
- Electrochemical Sensors for Energy and Transportation by R. Mukundan and F. Garzon
- Biosensor Systems for Homeland Security by C. J. Bruckner-Lea

Suggestions:

- Nano/bio sensors (quantum dots, disease screening/detection etc.)
- Energy/Environment Security

- b. Board meeting report from Mukund:

Membership benefits have changed. The new proposed changes will be voted on at the Thursday meeting.

For an annual dues amount of \$95, the benefits include:

- ECS Digital Library (DL) access
 - Members may download 100 full-text articles from the ECS DL.
 - Downloads may be any combination of articles from JES, ESL, ECST, including their archives.
 - Downloads are available to the member during their year of membership (no carryover to subsequent years).
- *Interface*: subscription to 4 issues (1 year)
- Publication discount: 20%
- Meeting registration discount: approximately 30%
- Access to online tools such as the Member Directory and Career Center
- Discount on ECS DL article packs
 - An article pack is a set of 25 articles that can be purchased for \$400 from the ECS storefront on the DL platform. (Compare this with the price of individual articles: \$18.40 for JES and ESL; \$9.60 for ECST.)
 - These article packs must be used within 365 days of purchase. (Nonmembers will have the ability to purchase packs at a significantly higher price.)
- Discount on optional JES paper subscription (\$145, all countries)
- Discount on optional ESL paper subscription (\$55, all countries)
- Discount on optional JES CD-ROM (\$145)
- Discount on optional ESL CD-ROM (\$55)

Is Giving ECST a good idea? Implications on “At Meeting ECST” sales?

There is going to be a constitutional amendment. It will be voted on by the membership at the Tuesday Business luncheon and by the Board on Thursday. The proposed amendments are in the form of a new document. The text is available at this link:

http://www.electrochem.org/ecs/bylaws/ecs/bylaws_021908.doc.

The reason describing the changes and also highlighting the factual changes, can be found here:

http://www.electrochem.org/ecs/bylaws/bylaws_changes.htm

- c. Individual Membership Committee. Board Room, Second Floor. Joe attended the one in DC. 20% reduction in page charges. Make brochure for sensor division! Joe and Mukund. IMCS and IEEE sensor meeting. Will enact the 20% reduction from members; form student chapters-it is easier for ECS to grow by encouraging student members; big conversion rate from student to full members; plan more activities during meetings for students-outing at Diamond backs with 50+ students attending-Amir Zaman organized this by getting a hold of student chapters sending out notices; best thing for our division to grow by is getting students to join. Joe thinks we can suggest to co sponsor with IEEE to get student members to be members of ECS too. Joe suggested that when he goes to IEEE in Italy, he will take promotional materials for Sensor division-posters-flyers;

Joe will talk to Amir about this. Also take brochure to Sheikh's IMCS. Every other year IMCS rotates between US, Europe and Asia. To promote ECS-they could sponsor IMCS the next time it is in the US-Joe and Mukund will work together on these materials. Amir may be able to help in the design of the brochure which will include the membership benefits on one side and then the other side will be a promotional material for the Sensor Division.

- d. Travel Grants: Ying-Lan Chang will continue to be the point of contact.
- e. Nominating Committee: Gary (Chair), Peter, Joe will need to submit the slate of officers by 3rd of July. This needs to be published in the interface. Elections at the Hawaii meeting. Members-at-large can be updated at this time.

Officers must be given by 3rd of July:

Chair-Jing Li

Vice chair-Zoraida

Secretary-Michael Carter

Treasurer-will solicit. Possibly Girish Kale

- f. New Technology Committee. Mukund attended the DC one and confirmed the funds for the Hawaii meeting. Always available for cutting edge new symposia. Have \$5k per meeting; they can give \$1 or 2 k as long as it is a new symposium. For the food safety sensors symposium, they can give something but if they have spent their budget, they may not be able to give anymore; Cristina Bock is the contact; tomorrow is the meeting of this committee at 3:30 PM; Alex may attend or Mukund/Peter will go and ask for money for food safety.
- g. Symposium subcommittee (Mukund and Zoraida attended this and will also attend the Hawaii one): Tuesday (7:00 AM); Cowboy Artists Room, Second Floor.
- h. Solid State Division Chairs meeting (Mukund): Monday, May 19, at 4:00 PM in Borelin A.
- i. Outstanding Achievement Award: To be presented in Hawaii (Oct, 2008). Mike Carter headed this committee and C. C. Liu is the winner. Mike should send "scroll language" to Charles Hussey. The finalist nominees were:
 - 1) Adam Heller
 - 2) CC Liu
 - 3) Jay Grate
 - 4) Mike Sailor

The Award committee members were:

- 1. Alex Simonian
- 2. Zoraida Aguilar
- 3. Mike Carter
- 4. Gary Hunter

5. Bill Buttner
6. Mira Josowicz
7. Peter Hesketh

6. Funding Requests

- a) Hawaii meeting
MEMS/NEMS have two volumes: 2 registrations
Chemical Sensors: 2 registrations
Moved, seconded, voted and approved

Solid State general open every fall; spring meeting usually small and will roll in the general session just like what happened in the acoustic session that was integrated with the general session. We will not participate in this after the Hawaii meeting since we like to run our own General Session.

- b) San Francisco meeting
Food safety—one registration approved: will ask for sponsorship from the co-sponsors and will drop them if they don't; for invited persons; Alex had already invited 4 speakers; ask co-sponsors to provide speakers

Call for paper abstracts: comes out in between two meetings; once it is submitted, send a copy to the executive committee so that there is more exposure;

35 Years of Chemical Sensors—Jiri Janata: two registrations approved

7. Financial issues

- Travel grants. 2 granted for Phoenix. Plenty of grants available for Hawaii. Standardize procedure for acceptance. Late applications and students not presenting? They have to apply on time and follow the guidelines.
- Use the sponsorship at IMCS to make a pitch for ECS sensor division. Will ask Sheik for 10 minutes at one of his banquets. Anything else we can do to attract members? Will talk to Solid State Division chairs regarding sensor-focused editor for JECS/ESL.
- Cutting edge symposia: Approach New technology subcommittee for funding.

8. Other Issues:

- a. E-mail to the Division.
- b. Fellow nomination

9. Future Symposia Planning:

**214th Fall 2008 Hawaii:
Abstracts due May 30th**

- **Tutorials in NanoTechnology Focus on Sensors** (P. J. Hesketh, C. Bock, F. Kitamura, M. Saito, G. Sandi, M. Tabib-Azar, and P. Vanýsek).
- **Microfabricated and Nanofabricated Systems for MEMS/NEMS 8** (P. J. Hesketh, J. L. Davidson, J. Li, S. Shoji, and K. B. Sundaram).
- **Chemical Sensors 8: Chemical (Gas, Ion, Bio) Sensors and Analytical Systems** (R. Mukundan, Z. Aguilar, C. Bruckner-Lea, M. Carter, G. Hunter, N. Miura, F. Mizutani, and Y. Shimizu)
- **Co-sponsor**
 - Solid State Ionic Devices 6 – Nano Ionics
 - Nitrides and Wide Bandgap Semiconductors for Sensors, Photonics, and Electronics 9
 - ZnO-Based Thin Films, Nano-Wires, and Nano-Belts for Photonic and Electronic Devices and SensorsMukund will send an invitation email to Amir for Hawaii

**215th Spring 2009, San Francisco
CFP to be finalized on May 20th**

- 35 Years of Chemical Sensors (Sensor)
 - Honorary Symposium for Professor Jiri Janata (PV), (Jing Li, R. Brown, Cindy Brucker-Lea, D. Hatched, M. Josowicz, P. Vanysek)
 - General Session (Gary, Mukund, Zoraida, Carter, Shekar)
 - Sensor Applications: Food Safety, Agricultural and Environmental sensors (A. Simonian, Bill Buttner, G. Hunter, Zoraida, Shekar)
- **Co-sponsor**
 - Measurement and Diagnostics for Energy Systems
 - Dielectrics and Engineered Interfaces in Biological and Biomedical Applications--- Cristine Krantz: dielectrics will do a Transactions, Thomas will help with this symposium
 - Electrochemistry in Medicine and Biomedical Applications—Zoraida Aguilar
 - Nanostructured Materials: Chemistry and High Temperature Applications(Should be in)—ask Gary if he is interested

All call for papers have been submitted

**216th Fall 2009, Vienna, Austria
Topics to be finalized on May 20th. CFP due August 31st.**

stephanie.plassa@electrochem.org AND paul.urso@electrochem.org

- Smart sensing and sensor networks (Gary Hunter, Jing Li, Bill Buttner) Sponsorship from New technology
- General Session (Mukund, Peter, Zoraida, Mira, Mike)
- Impedance based sensors-more on technique symposium-Vladim, Peter Vanysek.

- Sensor Research and independent living (include GMO)-(Joe Stetter, Alex Simonian) –ask for funding from New technology
SUBMIT RIGHT AWAY
- **Co-sponsor**
 - Wide-Bandgap Semiconductor Materials & Devices 10 (Need name)
 - Electrochemical Arrays-Genomics, Proteomics, and Metabolomics (Alex)
 - New Biomimetic Materials for Electrochemical Sensing (Need to add, C. Krantz)
 - One-Dimensional Nanoscale Electronic and Photonic Devices 3 (Jing Li)
 - Surface Treatment for Biomedical Applications 2 (Zoraida)

217th Spring 2010, Vancouver, Canada

Discussion to be started on May20th. Submit topics before Tuesday.

- Sensors for energy and environment (get someone with nuclear experience, Jay Grate)
- General Session (Gary, Mukund)
- Electrochemical Nano/Bio Sensors (Alex, Make this a 2 year spring meeting recurring session)

218th Fall 2010, Las Vegas

- **Microfabricated Systems and MEMS IX** (P. J. Hesketh, get new people)
- **Chemical Sensors IX: Chemical and Biological Sensors and Analytical Systems** (R. Mukundan, Alex,).

219th Spring 2011, Montreal

Discuss cutting edge ideas.

Sensors for Marine and Industrial Applications----Zoraida, Alex, Mukund.

Sensors for Grid Reliability, Richard White.

Meeting adjourned 10:03 pm