

General Business Meeting

Time: Monday, October 13, 2014, Noon – 1 p.m.

Location:

Continuation Time: Monday, October 13, 2014, 1 p.m. – 2 p.m.

Location:

Meeting Chair: Steven Tidrow, Chair Electronics Division

Division Trustee: Winnie Wong-Ng

Meeting Minutes: Geoffrey L. Brennecka

Welcome

Celebration of Awards

2013 Edward C. Henry Award

2013 Lewis C. Hoffman Award

ACerS Fellow(s)

Outgoing Chair's Remarks

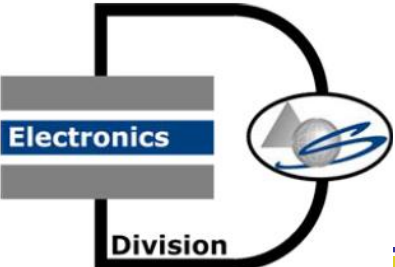
Introduction of Incoming Chair

Incoming Chair's Remarks

EMA 2014 Planning

2014-2015 Nominating Committee Election

Continued Celebration and Other Business Discussions:



2013 Class of Fellows

18 total



William Hammetter



Xiang Ming Chen



Paul Clem



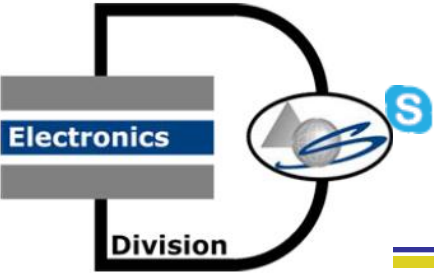
Yoshihiko Imanaka



Martha Mecartney



Shashank Priya



2014 Class of Fellows

17 total



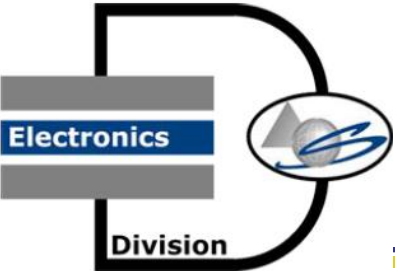
Ivar Reimanis

Professor

Colorado Center for Advanced Ceramics
Metallurgical and Materials Engineering

Colorado School of Mines

Office: 303-273-3549 303-273-3549
reimanis@mines.edu



2013-2014 Executive Committee

Position	Individual
Chair	Steven C. Tidrow (UT – Pan American)
Chair-Elect	Timothy J. Haugan (US AFRL)
Vice-Chair	Haiyan Wang (Texas A&M Univ., NSF)
Secretary	Geoffrey L. Brennecka (SNL, Colorado School of Mines)
Secretary-elect	Brady Gibbons (Oregon State Univ.)
Trustee	Winnie Wong-Ng (NIST)



Electronics Division Past and Present

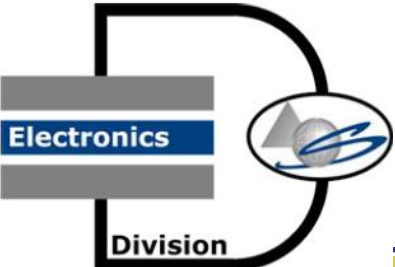
As of 8/31/20xx

* (3)



ACerS Division Membership by Regions

	North America	Europe	Asia	Other
AACS	91%	4%	2%	3%
Basic Science	62%	13%	20%	5%
Cements	83%	3%	5%	9%
Electronics	60%	6%	25%	9%
Engineering Ceramics	58%	20%	17%	5%
GOMD	75%	11%	9%	5%
Nuclear	77%	2%	9%	12%
Refractory	80%	4%	7%	9%
Structural Clay	91%	3%	2%	5%
Whitewares	87%	2%	2%	9%



Year	Funds (\$ K)	Symposia	Abstracts	Countries	Attendees
2010	0.475	8	188(197)	26	195
2011	6.6	8	192(198)	22	192
2012	6.6	8	174 (173)	20	180
2013	8.7	16*	257(259)	25	257
2014	12.9*	13	281(294)*	33*	296*
2015	----	11	294	----	----



Steven Tidrow



George Rossetti



Haiyan Wang

- Australia

Brazil

Canada

China

Colombia

Ethiopia

France

Germany

Ireland
- India

Israel

Italy

Japan

Korea, Republic of

Mexico

Netherlands

Pakistan

Philippines
- Portugal

Qatar

Russian Federation

Saudi Arabia

Serbia

Singapore

Slovakia

Slovenia

South Africa
- Spain

Switzerland

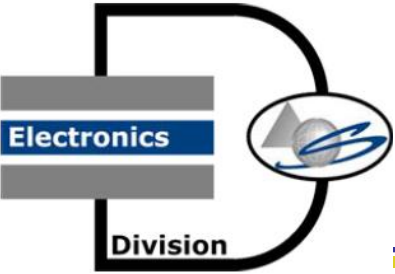
Taiwan

Thailand

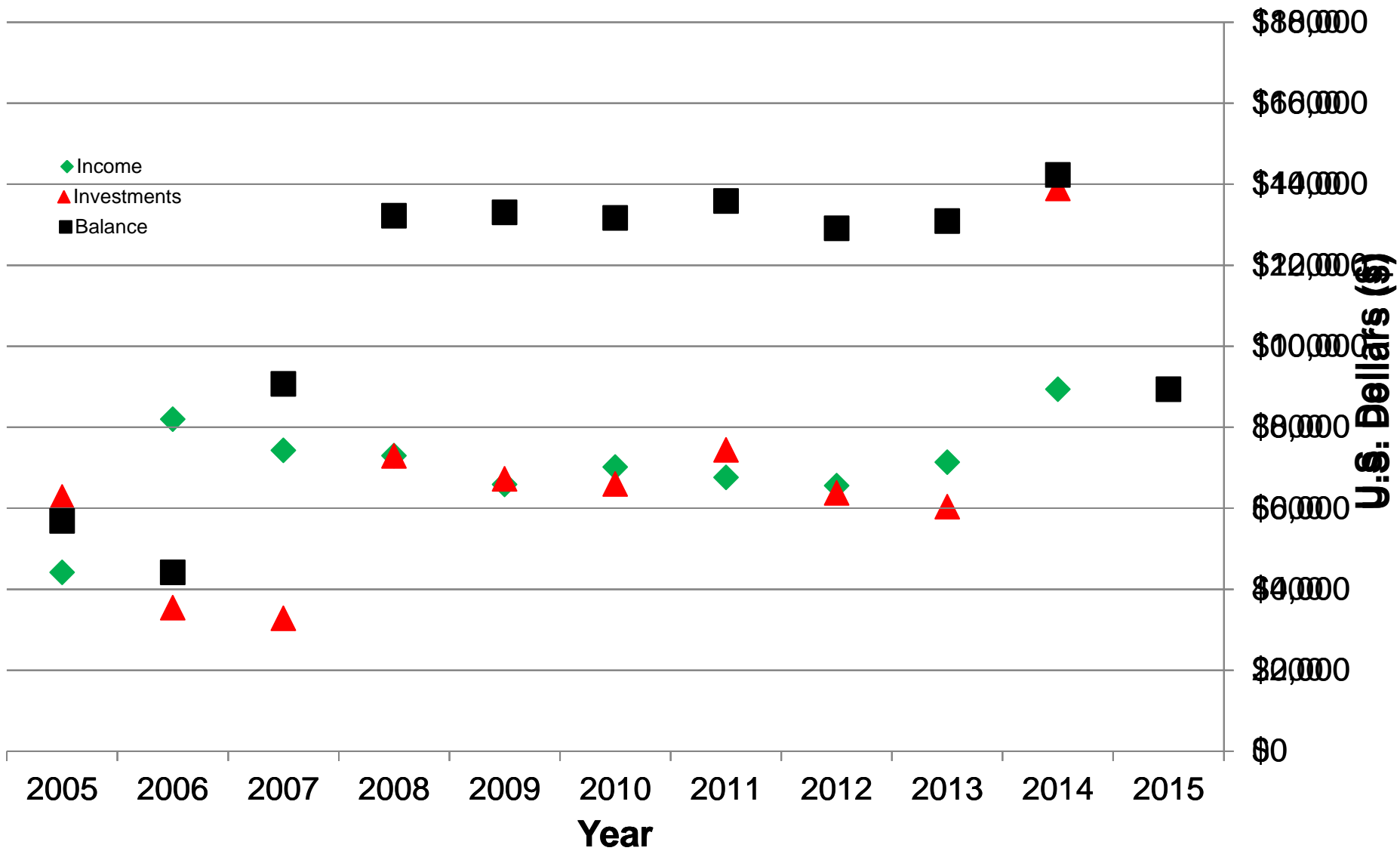
Turkey

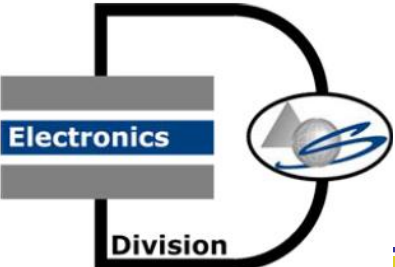
United Kingdom

United States



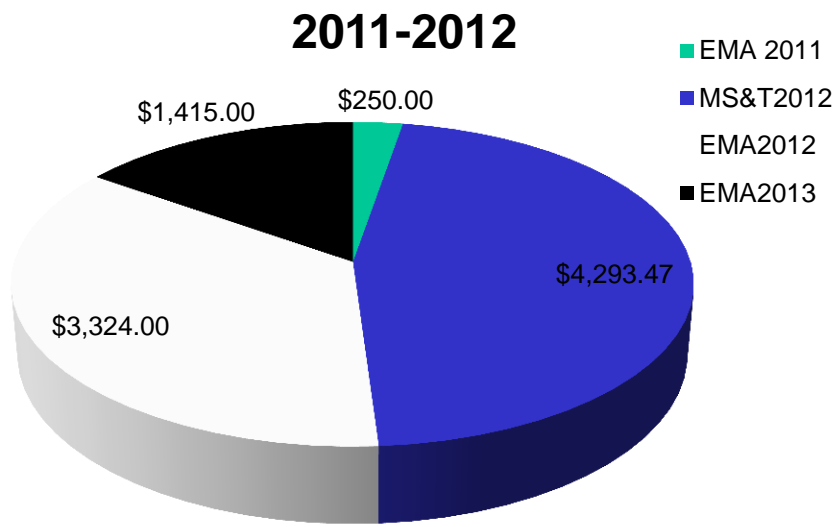
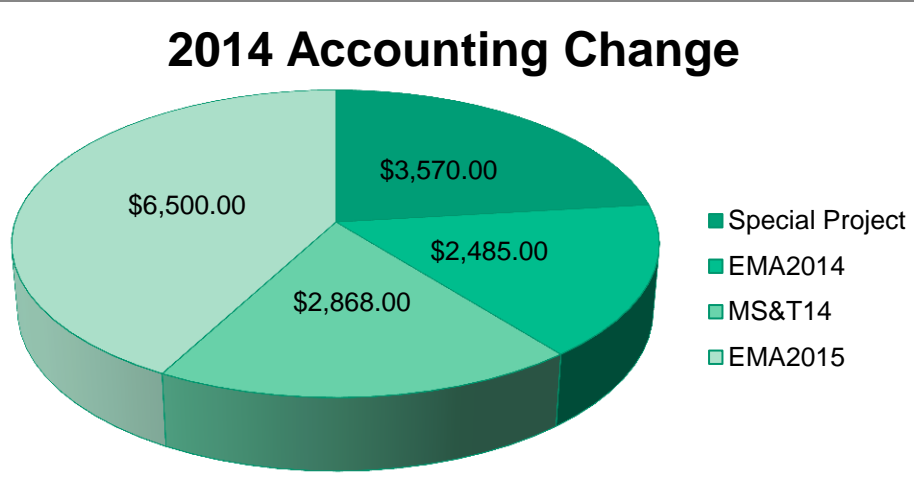
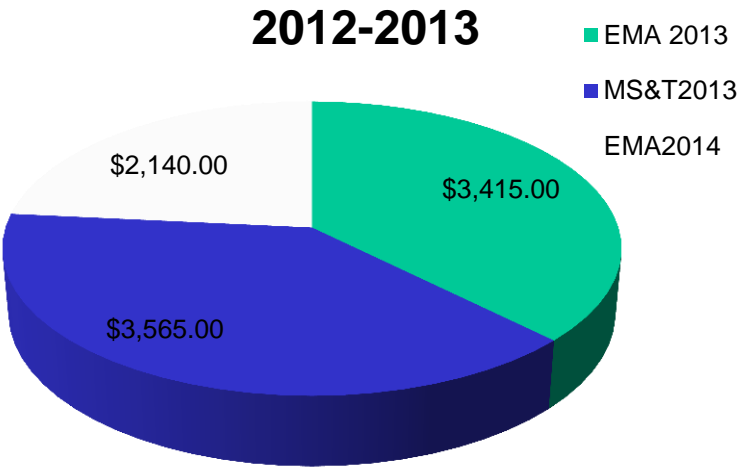
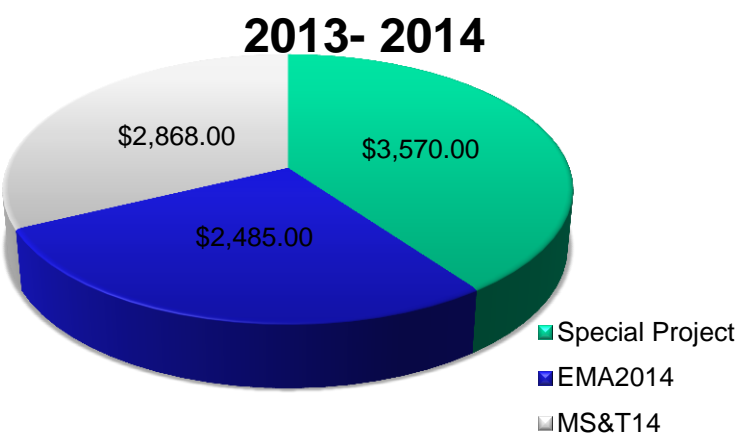
Electronics Division Finances

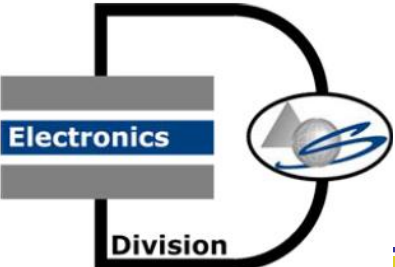




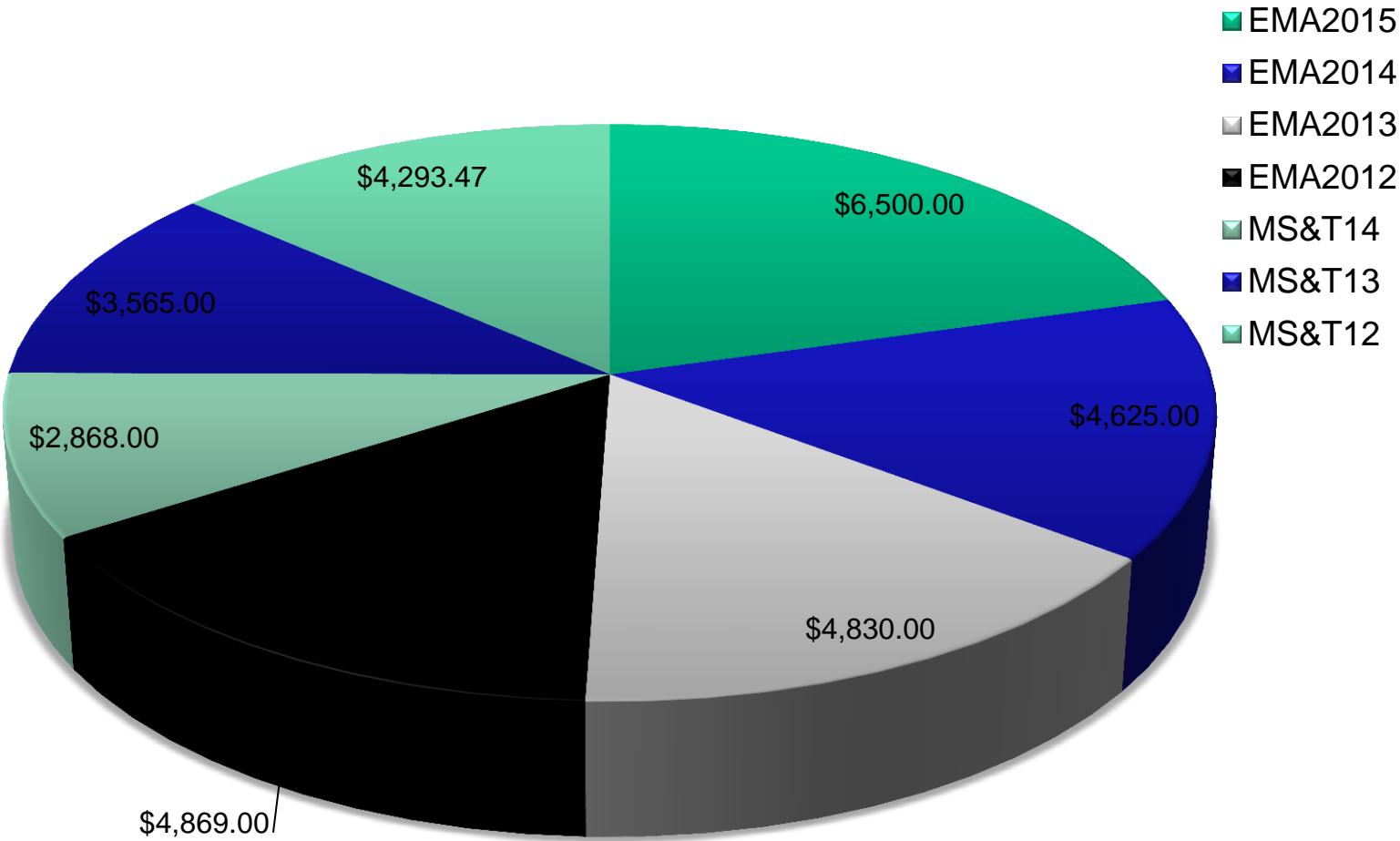
Investment Distributions

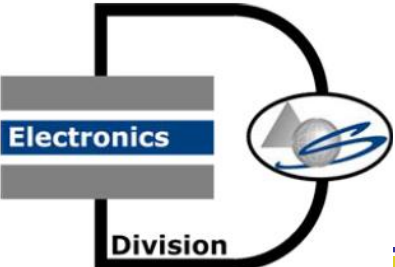
2011-2012, 2012 – 2013, 2013 – 2014



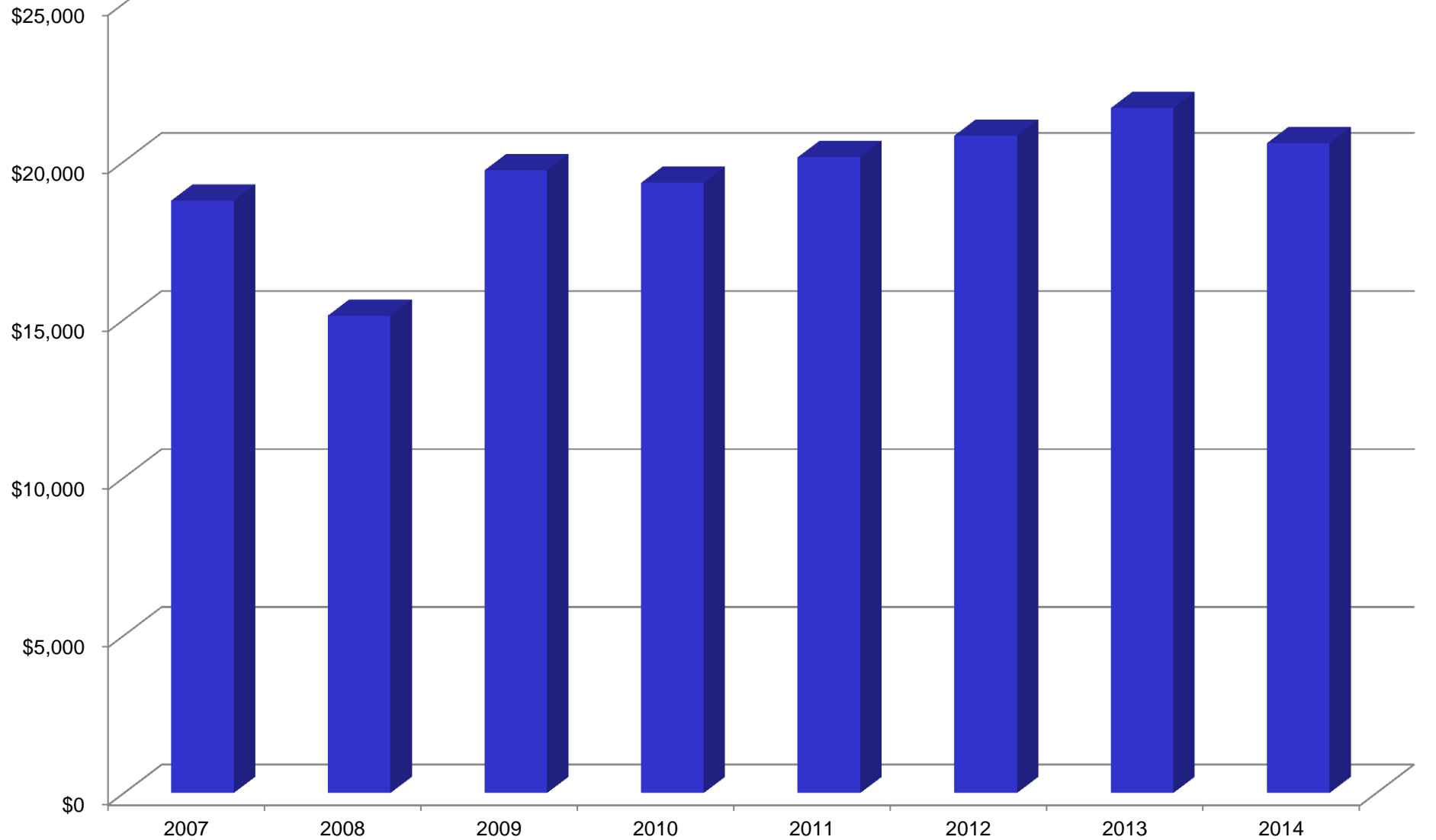


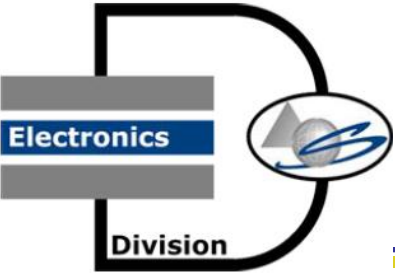
Conference Investments



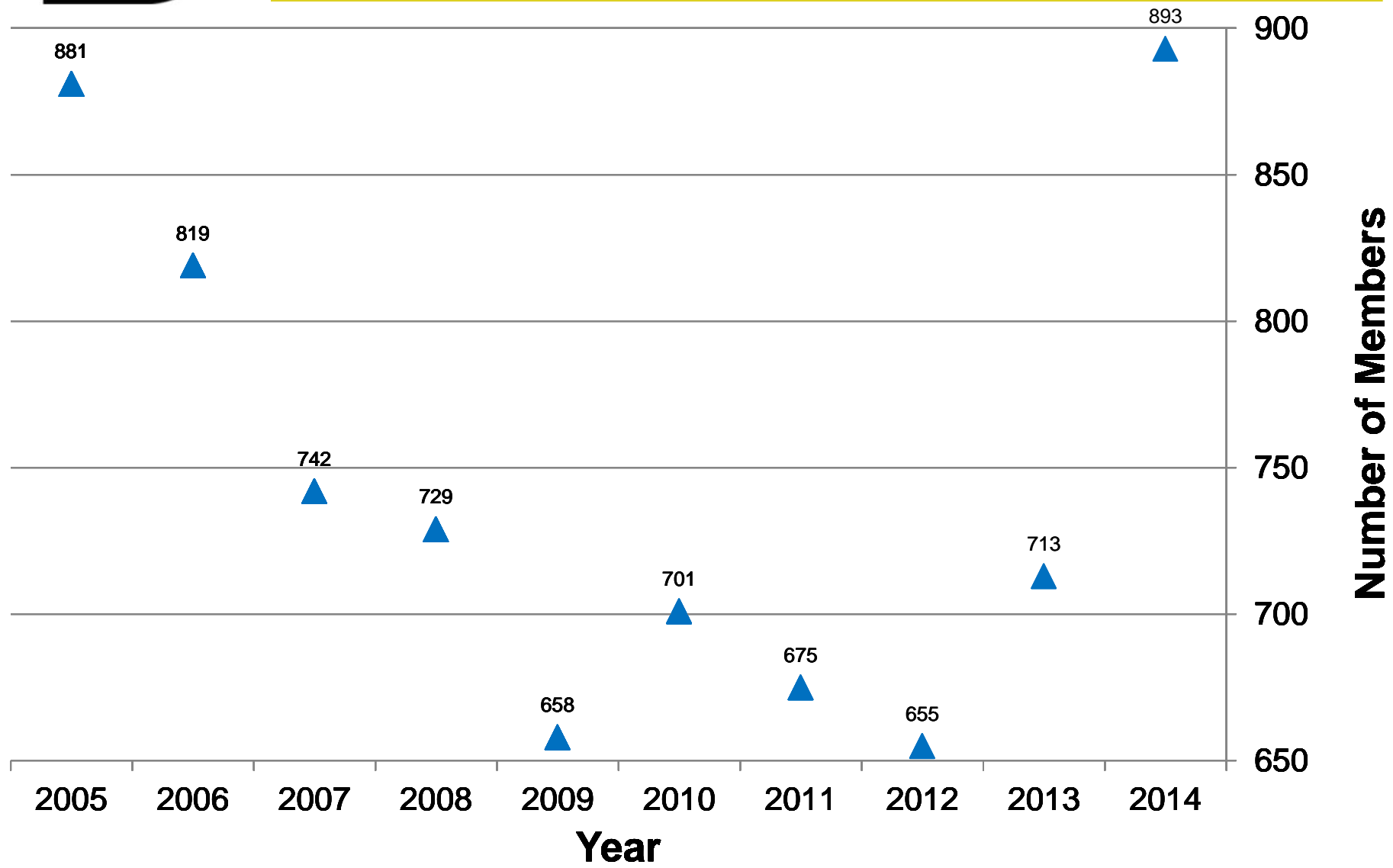


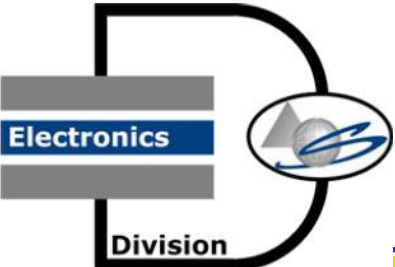
Lew Hoffman Fund Balance





Electronics Division Membership



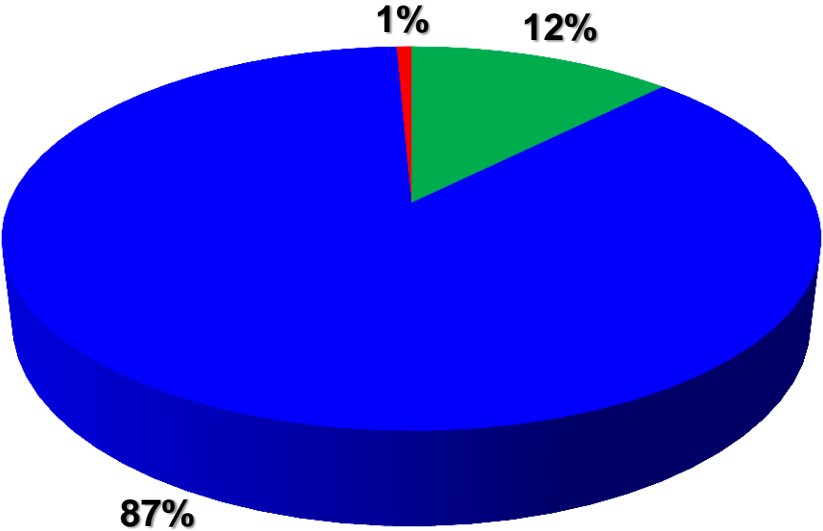


Membership Distribution

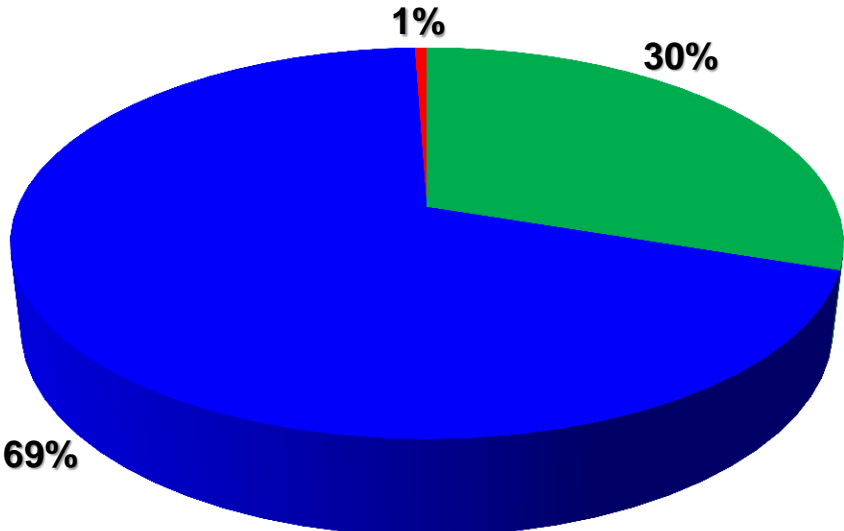
2013 – 2014 Versus 2012 – 2013

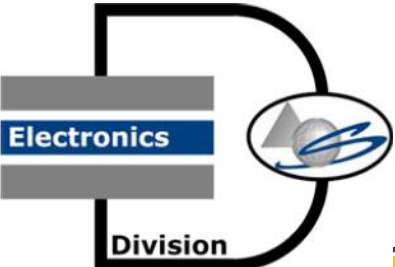
Retired
Entering Professional (< 10 yrs.)
Professional

2012-2013 (713 Members)



2013-2014 (893 Members)





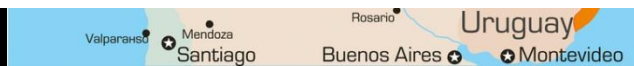
Forming Affiliated ACerS – Electronics Division Material Advantage Chapters



State University of Maringa



Chapter Advisor: Dr. Luiz Fernando Cótica
Department of Physics
State University of Maringa
55-044-32614330 lfcotica@dfi.uem.br; lfcotica@yahoo.com.br



Electronics

Division

Forming Affiliated ACerS – Electronics Division Material Advantage Chapters

CARIBBEAN SEA

Santa N
Barranquilla
Cartagena



Chapter Advisor: Dr. Oscar Jaime Restrepo
Department of Materials and Minerals
Universidad Nacional de Colombia
57-4-4309290 ojreste@unal.edu.co

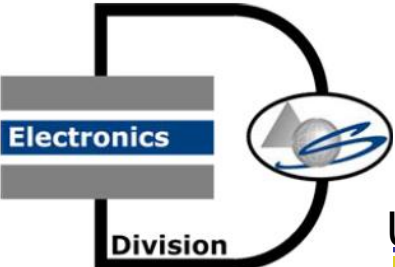


Universidad Nacional de Colombia



Dr. Juan Pablo Hernandez-Ortiz





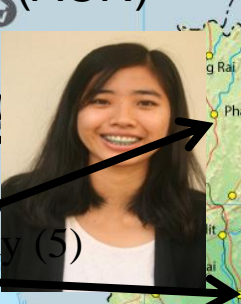
Forming Affiliated ACerS – Electronics Division Material Advantage Chapters

Ubon Ratchathani University (UBU)

Advanced Ceramics Research Group (ACR)



Asst. Prof. Dr. Anuson Naresuan
Head, Advanced Ceramics Research Group, Naresuan University (5)



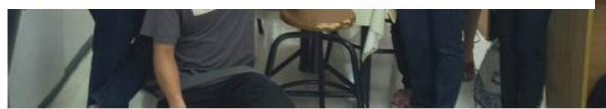
THAILAND
Latitude and Longitude Map

The gro
piezo
films
studie
transp

NUP Electroceramics Research Group



Asst. Prof. Dr. Theerachai Bongkarn and his students at Naresuan University, Thailand



Asst. Prof. Dr. Anurak Prasatkhetragarn and his student at University of Phayao, Thailand

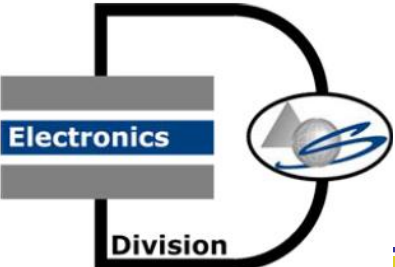


Nakhon Ratchathani
University (4))

Principal Investigators

- (1) Assoc. Prof. Sukanda Jiansirisomboon
- (2) Asst. Prof. Anucha Watcharapasorn





Leadership Material Advantage Chapters



Dr. Luiz Cótica



Professor Amar Bhalla



**Professor
Rattikorn Yimnirun**



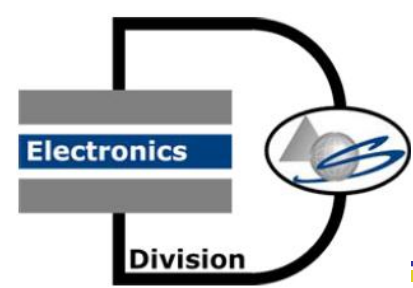
Dr. Juan Pablo Hernandez-Ortiz



Dr. Oscar Jaime Restrepo

Ms. Tricia Freshour

Ms Marcia Stout



Leadership Material Advantage Chapters

King Mongkut's Institute of Technology Ladkrabang (22): **Asst. Prof. Dr. Naratip Vittayakorn**

Suranaree University of Technology (25): **Prof. Dr. Sukit Limpijumnong**

Chiang Mai University (14): **Asst. Prof. Dr. Anucha Watcharapasorn**

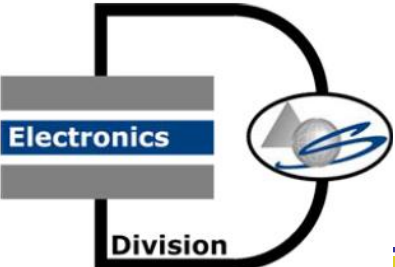
University of Phayoa (6): **Asst. Prof. Dr. Anurak Prasatkhetgarn**

Sakon Nakhon Rajabhat University (6): **Asst. Prof. Dr. Tosawat Seetawan**

Ubon Ratchathani University (5): **Asst. Prof. Dr. Rungnapa Tipakontithikun**

Khon Kaen University (4): **Dr. Prasit Thongbai**

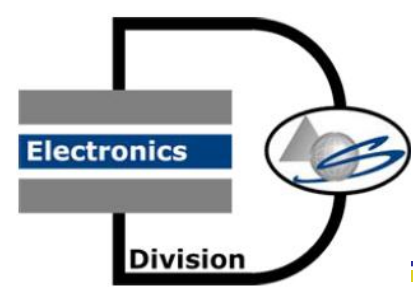
Naresuan University (5): **Asst.Prof. Dr. Theerachai Bongkarn**



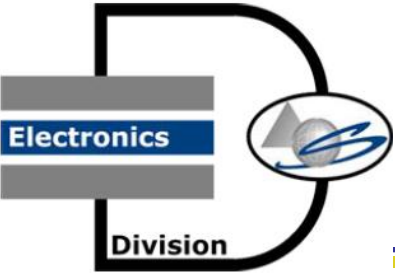
2014-2015 Executive Committee and Trustee

Position	Individual
Chair	Timothy J. Haugan (US AFRL)
Chair-Elect	Haiyan Wang (Texas A&M Univ.)
Vice-Chair	Geoffrey L. Brennecka (Colorado School of Mines)
Secretary	Brady Gibbons (Oregon State Univ.)
Secretary-elect	Rick Ubic (Boise State Univ.)
Trustee	Winnie Wong-Ng (NIST)

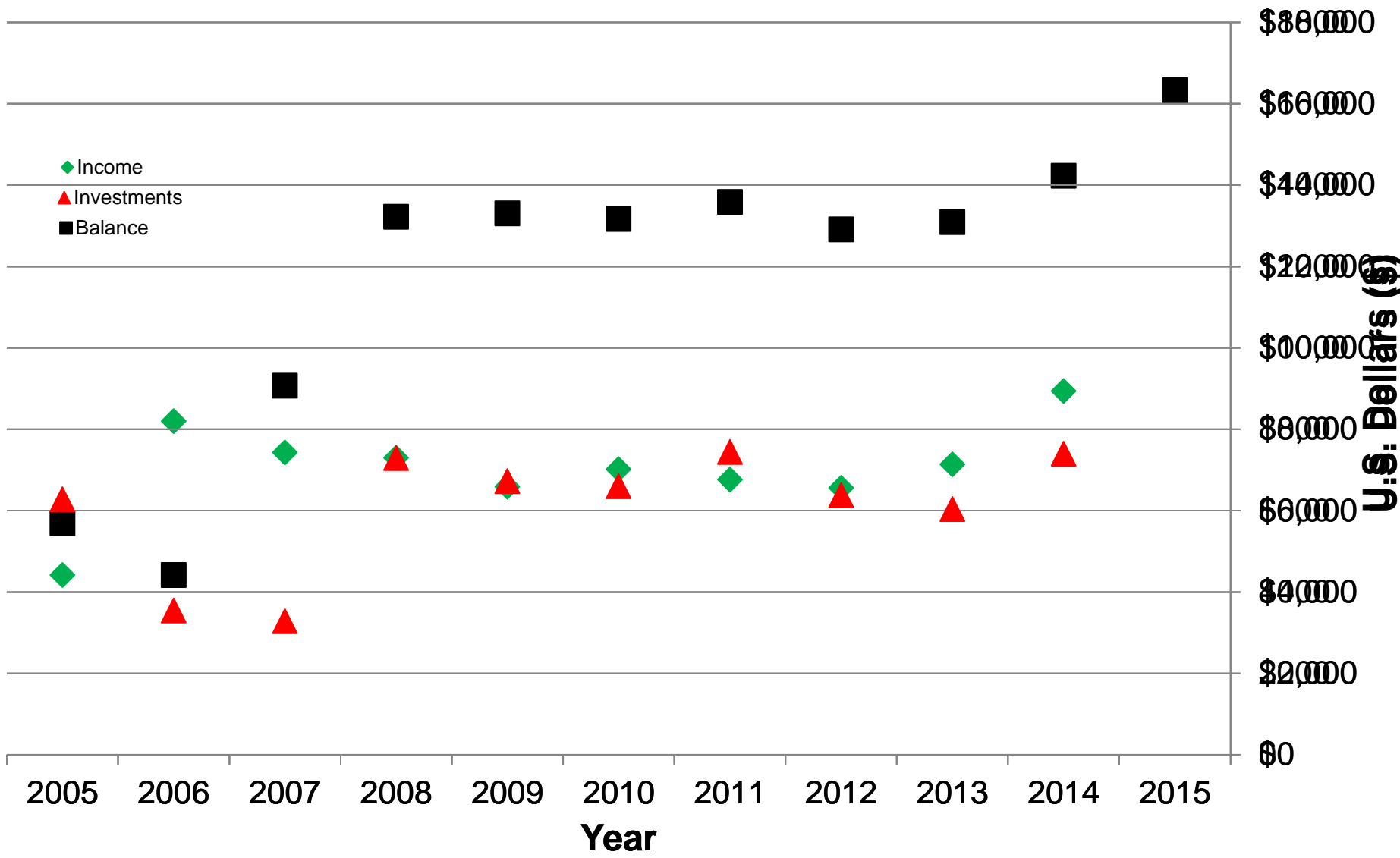


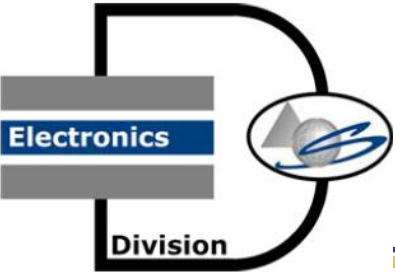


Thank You!!!

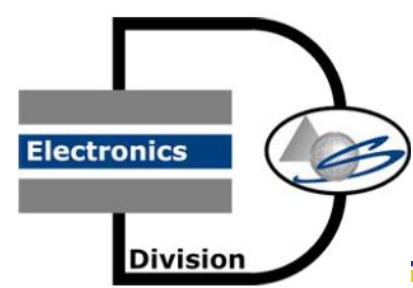


Electronics Division Finances





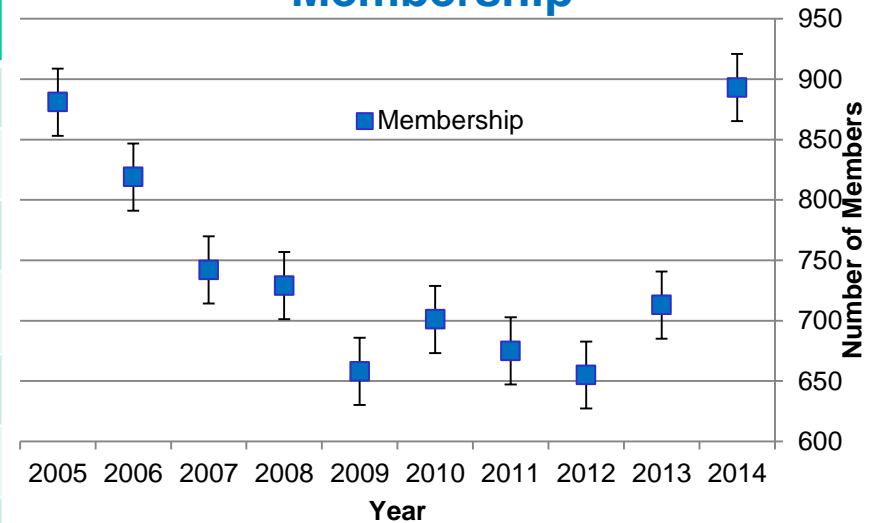
Back-up Slides

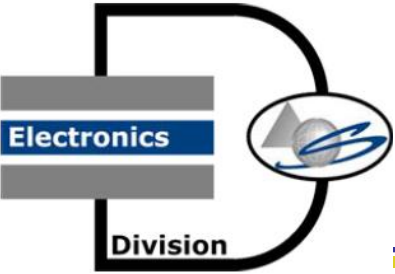


Membership, Investments & Balance

Year	Members	Income	Invest	Balance (01/01/XXXX)
2004	1012			
2005	881	\$ 4,405	\$ 6,269	\$ 5,675
2006	819	\$ 8,190	\$ 3,535	\$ 4,405
2007	742	\$ 7,420		\$ 9,060
2008	729	\$ 7,290	\$ 7,280	\$13,214
2009	658	\$ 6,580	\$ 6,718	\$13,298
2010	701	\$ 7,010	\$ 6,592	\$13,160
2011	675	\$ 6,750		\$13,578
2012	655	\$ 6,550	\$ 6,367	\$12,899
2013	713	\$ 7,130	\$ 6,032	\$13,082
2014	893	\$ 8,930	\$ 7389*	\$14,220
2015				\$16,319*

Electronics Division Membership





Past Chairs

2000-2001 Professor Rosario Gerhardt, Georgia Institute of Technology, rosario.gerhardt@mse.gatech.edu

Dr. Rosario A. Gerhardt

Professor, School of Materials Science and Engineering

Georgia Institute of Technology

771 Ferst Drive

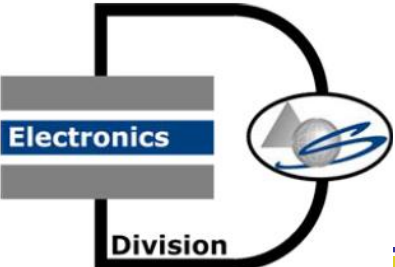
Atlanta, GA 30332-0245

(404) 894-6886(404) 894-6886 Office

(404) 894-9140 Fax

<http://www.mse.gatech.edu/faculty-staff/faculty/rosario-gerhardt>

<http://scholar.google.com/citations?user=J1WD2TwAAAAJ&hl=en>



Dr. Juan Pablo Hernandez-Ortiz
Professor
Department of Materials and Minerals
Facultad de Minas
Universidad Nacional de Colombia, Sede Medellin
Honorary Associate

Oscar Jaime Restrepo <ojrestre@unal.edu.co>

Institute for Molecular Engineering
University of Chicago
Honorary Associate
BioTechnology Center, Genomics Center of Wisconsin
University of Wisconsin-Madison
Universidad Nacional de Colombia, Sede Medellin

Oscar Jaime Restrepo

Dr. Juan Pablo Hernandez-Ortiz

Calle 75 # 79A-51, Bloque M17
Medellin, Colombia

TEL: + 57 4 425-5249

Fax: + 57 4 425-5254

Email: jphernandezo@unal.edu.co

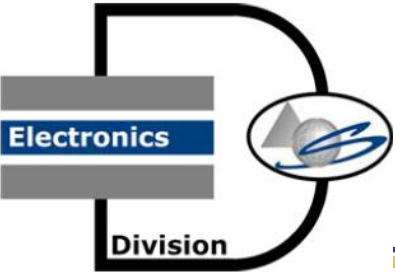
jphernandezo@wisc.edu

jphernandezortiz@uchicago.edu

[http:// www.medellin.unal.edu.co/~jphernandezo](http://www.medellin.unal.edu.co/~jphernandezo)



Oscar Jaime Restrepo Baena
Profesor Asociado
Departamento de Materiales y Minerales
Facultad de Minas
Universidad Nacional de Colombia
Teléfono 57-4-4309290
e-mail: ojrestre@unal.edu.co



Investment by Member Category



American Ceramic Society Electronics Division



ACerS Electronics Division, 2015 Incoming Chair Remarks

MS&T Conference, Pittsburgh PA
13 Oct 2014

Timothy J. Haugan, Ph.D.
Research Physicist
Aerospace Systems Directorate
The Air Force Research Laboratory

Integrity ★ Service ★ Excellence



ACerS Electronics Division - 2015



- Officers and Committees 2015
- Budget Proposal 2015
- ACerS and ED Areas of Emphasis 2015
 - Materials Advantage Chapters
 - Nurture New/Existing Chapters
 - Develop New Chapters (?)
 - ACerS Global Ambassador Program
 - Other Membership/Outreach (?)
 - Address needs of Industry members (45% of ED)
 - Strengthen MS&T 2016 Programming
- Electronics Materials and Applications (EMA) 2015,2016



ACerS Electronics Division - 2015 Executive Committee



Position	Individual	2015 Tasks, and Reports due Oct 2015
Chair	Dr. Timothy Haugan U.S. AFRL	Division Chair, EMA 2015
Chair-elect	Dr. Haiyan Wang Texas A&M and NSF	Programs/Meetings, EMA 2016
Vice-Chair	Dr. Geoff Brennecka Colorado School of Mines	Program Advisory, EMA 2015
Secretary	Dr. Brady Gibbons Oregon State Univ.	Business Minutes, EMA 2016
Secretary-Elect	Dr. Rick Ubic Boise State Univ.	Awards and Scholarships
Trustee	Dr. Winnie Wong-Ng, NIST-Gaithersburg	Budget authorization
ACerS Board	Dr. Geoff Brennecka	New starting 2015

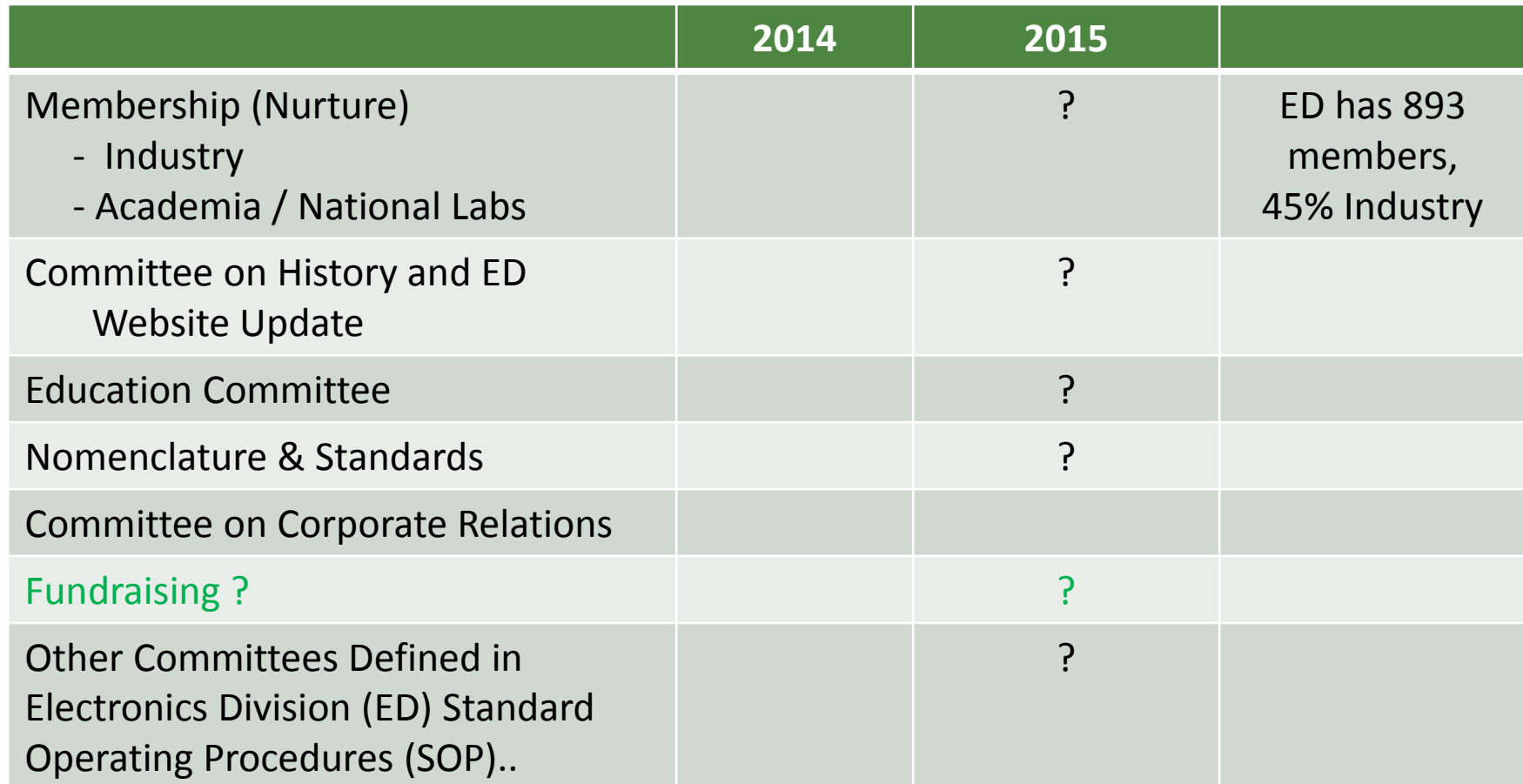


ACerS Electronics Division - 2015 Active Committees



	2015	2015 Budget
Awards and Scholarships Committee (Hoffman, Henry, EMA Student)	R. Ubic	~ \$3800
Committee on Nominating for Fellows	W. Wong-Ng	
Nominating Committee	S. Tidrow, tbd, tbd	
New Member/Outreach Committee - Materials Advantage New Chapters	?	\$1000
- Materials Advantage Nurture	C. Xiong?	\$1000
- Social Media Liaison for ACerS*	?	
ACerS Global Ambassador from ED	S. Tidrow ? A. Bhalla ? Others ?	ACerS Budget?
Rules and S.O.P.	R. Ubic or tbd	

* ACerS is running active Livelink ads with good success, and there are many times questions that can be referred to ED





ACerS Electronics Division - 2015 Budget Proposal



Electronics Division Operating Fund				2014 Budget	2015 Budget	2016 Budget?	Comments
Contributions				\$ -	\$ 1,000.00		Donors available?
Balance to start New Year				\$ 7,090.00	\$ 816.80		
Year Funds earned from ACerS				\$ 7,130.00	\$ 8,930.00		Set every year on 31 Aug of prior year = \$10/
Total Balances New Year Start				\$ 14,220.00	\$ 9,746.80		but not available until 1 Jan next Yr.
Expenses:							
2014 EMA Student Comp Registrations				\$1,485			
2014 EMA Awards (3 Poster, 3 Presentation)				\$1,000			
2015 EMA Student Comp Registrations				\$2,750			Pink is budgeted, but could end up less
2015 EMA Professional Comp Registrations				\$2,750			
2015 EMA Student Awards (3 Poster, 3 Presentation)					\$1,000		Still could reduce this to \$600
2015 EMA Student Lunches Co-share				\$0	\$500		This is leftover from pink
			2014, 2015 EMA Subtotals	\$7,985	\$1,500		
2016 EMA Student Comp Registrations					\$2,500		
2016 EMA Professional Comp Registrations (1/2 or full)					\$2,500		
2016 EMA Student Awards (3 Poster, 3 Presentation)					\$0	\$600	\$150,\$100,\$50 awards (oral and poster)
2016 EMA Industrial and/or Best Paper Award					\$0	\$200	
2016 EMA Student Lunches Co-share					\$0	\$500	
			EMA 2016 Subtotals		\$5,000	\$1,300	Total for EMA 2016 = \$6300
MS&T Registration Support				\$0	\$0		
Materials Advantage Chapter New Dues/Support				\$3,570	\$1,500		CGIF might fund this in 2015?
Presidents Council of Student Advisors (PCSA) to EMA				\$0	\$200		
Young Professional Network (YPN)				\$0	\$0		
Materials Advantage Ceramics Education Kits (7)				\$1,072.20	\$0		
Three Henry Plaques-Hartmans Awards				\$276	\$368		(Varies with # authors)
Henry honorarium: 3 authors				\$500	\$500		
Hoffman Fund Addition				\$0	\$540		(Estimate; to keep \$20,000 balance)
			Non-EMA Subtotals	\$5,418.20	\$3,108.00		
			Total Expenditures	\$13,403	\$9,608		
Budgeted End-of-Year Funds				\$ 816.80	\$ 138.80	\$ -	This assumes all funds spent as planned.
							This doesn't always happen, so totals can be



ACerS Electronics Division - 2015 Budget



- Income and Hoffman Fund

Note: ED member count on 8-31-2014 was 893 members.

893 x \$10 = \$8,930 provided to ED on 1-1-2015.

ED may carry over the entire balance of \$7,389 from 2014 to 2015.

Hoffman Fund Balance:								
	Low Hoffman	Beginning Balance as of 1/1/15				\$20,577	This value varies constantly.	
	Investment Net Gain as of 8/31/15					\$926	Assumes 4.5% increase	
	Hoffman Plaque-Hartmans Awards					(\$92)		
	Hoffman Scholarship: tbd					(\$2,000)		
	ED Contribute in 2015					\$589	This is an estimate, worst case could be \$2000+	
	Low Hoffman Fund Balance as of 9/12/2015					\$20,000		



ACerS Electronics Division - 2015



- Officers and Committees 2015
- Budget Proposal 2015
- **ACerS and ED Areas of Emphasis 2015**
 - **Materials Advantage Chapters**
 - Nurture New/Existing Chapters
 - Develop New Chapters (?)
 - **ACerS Global Ambassador Program**
 - **Other Membership/Outreach (?)**
 - **Address needs of Industry members (45% of ED)**
 - **Strengthen MS&T 2016 Programming**
- Electronics Materials and Applications (EMA) 2015,2016



Forming Affiliated ACerS – Electronics Division, Material Advantage Chapters



Chapter Advisor: Dr. Oscar Jaime Restrepo
Department of Materials and Minerals
Universidad Nacional de Colombia
57-4-4309290 ojreste@unal.edu.co



Dr. Juan Pablo Hernandez-Ortiz



Universidad Nacional de Colombia





Membership New / Nurture

- Materials Advantage Chapters



- New Materials Advantage Chapters available to start!?
 - 2 in Columbia, S. Tidrow \$750 for 15 members
 - 1-2 in India, A. Bhalla \$750 for 15 members
 - Other ED members acting as liaison / ambassadors?
- Ceramics Education/Demo Kits from ACerS/PCSA
 - \$69 each (cost of materials)
 - Materials Advantage (MA) Members can use for their own outreach / education, increase MA Chapter Size
 - Eight lessons on internet are available for download
- Monthly Webinars by ED Members
 - Connect to Materials Advantage Chapters, especially new
 - ED members give education lectures
 - ED officers meet and communicate
- ACerS Global Ambassador Program, Other Ideas?



ACerS New Thrusts



- Ceramic Glass Industry Foundation

- Philanthropic Organization (ACerS is a 501-C3 parent organization)
 - Own Board of Directors
- Proposed Purpose (still being defined)
 - Global Internships
 - Undergrad Scholarships
 - University / Industry Nurture
 - Continuing Education and Training
 - Student outreach / middle and high school
- Initial Funding: \$1M matching from ACerS, \$200K from two companies (must donate >\$100K to designate matching funds)
- Interested in Outreach Programming in 2015 !
- Contact: Director Marcus Fish or Charlie Spahr (cspahr@ceramics.org)



ACerS Student / Young Professional Development



- Presidents Council of Student Advisors (PCSA) (undergraduates)
 - 34 undergraduate students from 25 universities
 - 2014 budget ~ \$15K
- Graduate Network (GGRN)
 - Student members from Materials Advantage (4900 students) interested in Ceramics
 - Automatic Members by attending ACerS conference
- Young Professional Network (YPN) ($\sim \leq 10$ yr after degree)
 - contact to E. Gorzkowski (edward.gorzkowski@nrl.navy.mil) or Marissa Reigel (marissa.reigel@srnl.doe.gov)

<http://ceramics.org/acers-community/young-professionals>

*Info at www.acers.org



Year	Funds (\$ K)	Symposia	Abstracts	Countries	Attendees
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2011	6.6	8	192 (198)	22	192
2012	6.6	8	174 (173)	20	180
2013	8.7	16*	257 (259)	25	257
2014	12.9*	13	281 (294)*	33*	296*
2015	----	11	294	----	----



Steven Tidrow



George Rossetti



Haiyan Wang



Australia	India	Portugal	Spain
Brazil	Israel	Qatar	Switzerland
Canada	Italy	Russian Federation	Taiwan
China	Japan	Saudi Arabia	Thailand
Colombia	Korea, Republic of	Serbia	Turkey
Ethiopia	Mexico	Singapore	United Kingdom
France	Netherlands	Slovakia	United States
Germany	Pakistan	Slovenia	
Ireland	Philippines	South Africa	



General Topic	2015 S#	Symposium Title	2013 Abstracts	2014 Abstracts	2015 Abstracts
		Plenary	3	3	3
Advanced Materials, Ferroelectrics	S1	Advanced Electronic Materials: Processing, Structures, Properties and Applications	47	57	74
	S7	Multiferroic Materials and Multilayer Ferroic Heterostructures: Properties and Applications	35	49	27
	S2	Ceramic Composites, Coatings and Fibers	10	6	9
Ceramic Sciences and Modeling	S9	Structure of Emerging Perovskite Oxides: Bridging Length Scales and Unifying Experiment and Theory	21	23	18
	S3	Computational Design of Electronic Materials		25	22
	S5	Ion Conducting Ceramics (new in 2015)			11
Thin Film Science and Technology	S11	Thin Films and Interfaces: Stability, Stress Relaxation, and Properties	12	20	20
		Tutorial on Thin Film Stability		4	4
	S4	Functional Thin Films: Processing and Integration Science	23	30	29
Energy Science and Technology	S6	LEDs and Photovoltaics — Beyond the Light: Common Challenges and Opportunities	7	10	9
	S10	Thermoelectrics: From Nanoscale Fundamental Science to Devices	24	26	32
	S8	Recent Developments in High-Temperature Superconductivity	39	29	32
Student, Failure	S12	Failure: The Greatest Teacher	3	2	2
	S13	Student Awards Competition	6		
			259	298	294



EMA 2016 (20-22 Jan 2016)

Planning and Timeline



1. Funding support for Comp Registrations **(done as of 15 Oct 2014!?)**
 - 20 full registrations from ACerS/EMA Mark Mecklenborg, \$6000 from Electronics Division, and ~ \$2700 from Basic Sciences Division
2. Call for Symposia - Dec 2014 ? (Didn't work last year – too early)
3. Call for Papers due 12 Mar 2014
4. Plenary Speaker Recommendations
5. Symposia Support?
6. Tutorial Sessions?
7. **Co-location of small workshops with EMA?** Similar to being done by ACerS ICACC Cocoa Beach conference.
8. Other comments or suggestions – please contact to co-chairs



H. Wang



B. Gibbons

Basic
Sciences
Division,
Incoming
New



2015 Electronics Division Executive Committee



- Thank you for your support!
- Participation is gladly welcomed!
- Please contact to any of the chairs.

Position	Individual
Chair	Timothy J. Haugan (US AFRL)
Chair-Elect	Haiyan Wang (Texas A&M Univ.)
Vice-Chair	Geoffrey L. Brenneka (Colorado School of Mines)
Secretary	Brady Gibbons (Oregon State Univ.)
Secretary-elect	Rick Ubic (Boise State Univ.)
Trustee	Winnie Wong-Ng (NIST)





2014 Electronics Division Business Meeting Group Photo



13 Oct