



Experimentally Speaking ...

<http://sem.org>

Volume 2 | Issue 3

August | 2011

Message from the Incoming President

I am honored and excited, yet humbled by the prospect of serving the Society for Experimental Mechanics as President for the 2011–2012 term. The Society has enjoyed growth in participation, a strong financial position, and improved dissemination of our intellectual property, thanks to the leadership of the SEM staff, former presidents, leaders of committees and the SEM membership.

We are entering into an era of increased international activity. The fall SEM conference reestablished by Professor Arun Shukla, while he was President, has grown over the years. Starting this fall the conference will be held outside

of the United States. In 2011, it will be co-sponsored by the British Society for Strain Measurement and held in Edinburgh, Scotland. In 2012 it will be held in Taiwan. Next year's Annual Meeting is an International Congress Meeting and will be held in Costa Mesa, California.

This year marks many milestones for our society. This year is Professor Chuck Taylor's 100th SEM conference. It is also, the last annual conference that Kathy Ramsay will organize. Please join me in thanking both for their contributions to our society.

My goals for the upcoming year are similar to those of past presidents. I hope that the influence I have serves to compliment that of former presidents. These goals are:

- To increase the level of participation of members in technical activities
- To encourage students and first time attendees to join the society
- To continue to improve upon the delivery of our intellectual property

Since technical activities represent the core of what our society produces and distributes, I strive to encourage every member of the society to participate in one of the technical divisions. Last year, I helped start the tradition of having all of the technical division meetings during lunch with no other conflicting activities. Additionally, the society contributed pizza and refreshments. The number of



Peter G. Ifju, SEM President, 2011–2012

people attending the technical division meetings increased three fold from that of the year before. This increased activity also led to an increase in proposed tracks, symposia and papers. At this time, I'm please to say that the technical divisions are strong and will continue to be the incubator for new activities.

To increase membership, one of my goals for the upcoming year and for many years to come is to establish Regional Experimental Mechanics Graduate Student Symposia. The purpose of the Symposia is to provide an informal setting for graduate students to meet each other, present their research, and join

IN THIS Issue

- 1 President's Message
- 2 Dr. Felix Zandman
- 3 ISEF Awards
- 4 2011 Annual Conference & Exposition
- 7 SEM Member Note
- 8 SEM Staff

Society for Experimental Mechanics, Inc.
7 School Street • Bethel, CT 06801 USA
<http://sem.org> • 203.790.6373
director@sem1.com

continued on page 7

Dr. Felix Zandman

1928-2011



Dr. Felix Zandman, Founder & Executive Chairman of the Board, Chief Technical Officer and Chief Business Development Officer, of Vishay Intertechnology, Inc. (NYSE: VSH) died on June 4, 2011, at age 83. Dr. Zandman was born in 1928 in Grodno, Poland.

Dr. Zandman's personal experiences, intelligence and creativity had a profound impact on Vishay, the semiconductor and passive electronic components industry and Israel, and everybody with whom he worked. His courage, perseverance and dedication served as an inspiration to all who knew him.

In October 1941, he and his family were arrested by the Nazis and sent to the Grodno Ghetto. Dr. Zandman survived the Holocaust by hiding with his uncle Sender and other people under the floor boards in the house of a Polish family for 17 months. While in hiding, Dr. Zandman's uncle taught him trigonometry

and higher mathematics. Following the war, in 1946, Dr. Zandman emigrated to France, where he earned a mechanical engineering degree and MS in physics from the University of Nancy (France) and a PhD in physics from the University of Paris, Sorbonne.

In 1956, Dr. Zandman moved to the United States and began working for Tatnall Measuring Systems in Philadelphia as director of basic research. During this time he developed Photo-Stress® measurement instruments and revolutionary temperature-resistant foil resistors, which enable manufacturers of a wide assortment of precision products to upgrade their performance. When Tatnall declined to market Dr. Zandman's temperature-resistant resistors, Dr. Zandman, with financial support from his cousin Alfred P. Slaner, founded Vishay in 1962. The Company was named after the village in Lithuania where relatives of Dr. Zandman had perished during the Holocaust.

Dr. Zandman served as Chief Executive Officer of the Company from its inception until 2004 and as President from 1962 through 1998. He served as Board member when the Company started and assumed the position of Executive Chairman of the Board in 1989.

Under Dr. Zandman's leadership, Vishay has grown into a worldwide company with over 22,000 employees and manufacturing facilities in the Americas, Asia, Europe, and Israel, and with sales offices around the world. Today, Vishay Intertechnology is one of the world's largest manufacturers of discrete semiconductors and passive electronic components. Its components are used in electronic devices and equipment and in the industrial, computer, automotive, consumer, telecommunications, military, aerospace, power supplies, and medical markets. In addition, Dr. Zandman's patented inven-

tions enabled Vishay Precision Group, Inc. (NYSE: VPG), Vishay's measurements and foil resistor businesses, to be spun-off into an independent business in 2010.

Dr. Zandman published numerous scientific papers, three textbooks, and an autobiography ("Never the Last Journey") and held over 70 patents. He won numerous awards including the Best Strategic Investor Award from the Israel Manufacturers Association (awarded by the President of Israel); the Legion of Honor, France (awarded by the President of the Republic of France); the Order of Merit for Research and Invention (France); the Franklin Institute Medal for Science (USA); the Electronic Industries Alliance Medal of Honor (presented at a ceremony attended by the President of the United States); and the Lifetime Achievement Award from the National Electronic Distributors Association. He was awarded the title of Doctor Honoris Causa from the University of Beer Sheva (Israel) and from the Israel Institute of Technology (Technion). In 1994, Dr. Zandman also became a citizen of the State of Israel.

Dr. Zandman is survived by his wife Mrs. Ruta Zandman; his children, Dr. Gisele Zandman Goddard and her husband Eli, Mrs. Ariele Zandman Klausner and her husband Steven, and Mr. Marc Zandman and his wife Orit; and nine grandchildren.

Update

The 2012 Fall Conference on Current Trends and Future Directions in Experimental Mechanics, organized by Prof. Wei-Chung Wang, will be held November 6-11, 2012, in Taipei, Taiwan

SEM's 2011 ISEF Special Awards

2011 Intel International Science and Engineering Fair

The Society for Experimental Mechanics presented three Special Awards to finalists at the 2011 Intel International Science and Engineering Fair (ISEF), the world's largest high school science research competition, held in May in Los Angeles, CA. More than 1,500 young entrepreneurs, innovators and scientists competed to reach the finals from the 443 affiliate fairs in 65 countries, regions and territories.

Judges provided by SEM for the event included SEM President, Ryszard J. (Rich) Pryputniewicz, and Board members, Gary Foss, The Boeing Co., and Ralph Brillhart, ATA Engineering.

The awards, offered for projects which demonstrated excellence in the experimental study of materials and mechanical structures, were \$1,500 for first place, \$750 for second place, and \$250 for third place.



(left to right) SEM President, Rich Pryputniewicz, Nai-Wen Hu, Marek Kovar, Tomas Petak, Janet Yun-Chen Sung, Manjari Randeria



Intel ISEF 2011, Los Angeles CA

SEM's 2011 ISEF Special Award winners and their research topics:

First Award of \$1,500

Project title: "Micro-Magnetic Rotor Pump for Controlled Fluid Transport"
Manjari Randeria, 16
Upper Arlington High School,
Columbus, Ohio

Second Award of \$500

Project Title: "Studies of Cell Elasticity by Nonlinear Damping"
Janet Yun-Chen Sung, 18
and
Nai-Wen Hu, 16
Taipei First Girls High School, Taipei City,
Chinese Taipei

Third Award of \$250

Project title: "Study of Steels Suitable for Reactor Pressure Vessels"
Marek Kovar, 19
and
Tomas Petak, 19
Gymnazium Karla Sladkovskeho, Prague,
Czech Republic

For more about the Intel International Science and Engineering Fair:
<http://www.societyforscience.org/isef/> - complete list of the 2011 Winners:
<http://www.intel.com/about/corporateresponsibility/education/isef/index.htm> - about the ISEF



SEM ISEF Special Award judges Ralph Brillhart, Gary Foss, and Rich Pryputniewicz

2011 Annual Conference & Exposition

June 13-16, 2011 • Mohegan Sun, Uncasville, Connecticut USA



Rich Pryputniewicz, SEM President; Jim Dally, 50-Year SEM Member; Arun Shukla, 2011 William M. Murray Lecturer



Rich Pryputniewicz; José Freire, SEM Fellow



Rich Pryputniewicz; Carmine Pappalettere, SEM Fellow



Rich Pryputniewicz; Ioannis Chasiotis, 2011 JSA Young Investigator Lecturer; Eann Patterson, Editor of the Journal of Strain Analysis



Rich Pryputniewicz; Hareesh Tippur, SEM Fellow



Rich Pryputniewicz; Jane Grande-Allen, recipient of the A.J. Durelli Award



Cesar Sciammarella, recipient of the P.S. Theocaris Award; Rich Pryputniewicz



Nancy Sottos, recipient of both the M.M. Frocht and B.J. Lazan Awards; Rich Pryputniewicz



Rich Pryputniewicz; Emmanuel Gdoutos, recipient of the F. Zandman Award



Chuck Taylor, at his 100th SEM Conference; Sia Nemat-Nasser, SEM Fellow and recipient of the inaugural S. Nemat-Nasser Medal



Recipients of the D.R. Harting Award: Pin Wu and Peter Ifju



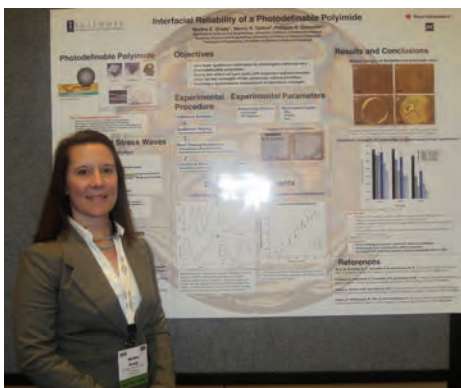
Student Paper Competition Winners: Aaron Albrecht, 3rd Place; Michael Zervas, 1st Place; Jefferson Wright, 2nd Place



Tong Cui; Bill Chao; Chuck Taylor; Dan Post; Peter Ifju, incoming SEM President



Recipients of the M. Hetényi Award: Jean-José Orteu, Michel Grédiac, François Hild, Bertrand Wattrisse, with Rich Pryputniewicz (center)



Martha Grady, 1st Place Student Poster Competition



Alan Zehnder, Jeff Kysar, K. Ravi-Chandar, Ken Leichti, Alex Arzoumanidis, Hongbing Lu, and Aaron Albrecht



Doris Swartz; Katherine Ramsay, SEM Conference Manager; Silva Andonian

Scenes from the Exposition



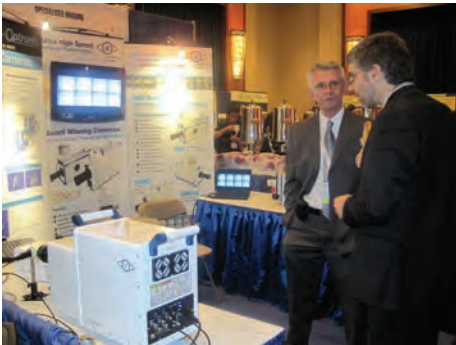
2011 SEM Exposition



2011 SEM Exposition



Tim Schmidt of Trilion Quality Systems with Chris Dehnert and Bill Campbell of NAC Image Technology



Fabrice Pierron with Frank Kosel of Specialised Imaging



Richard Prevost of LaVision, Inc. with Phillip Reu



Phillip Reu with Matt Crompton of Dantec Dynamics

Our sincere thanks goes to the following Exhibitors

For their sponsorship of the SEM 2011 Annual Conference & Exposition lanyards



For their sponsorship of the SEM 2011 Annual Conference & Exposition registration bags

correlated
SOLUTIONS

HADLAND
IMAGING

Photron
High Speed Cameras

For their sponsorship of the SEM 2011 Annual Conference & Exposition dessert break

Capacitec

correlated
SOLUTIONS

Trilion
Optical Test Systems

Thoughts from Fr. Jim Arenz, S.J.

Fr. R.J. (Jim) Arenz, S.J., has reached the milestone of fifty years of contributions to the field of experimental mechanics and more than 25 years of membership in SEM. With his time clock registering 86, his paper presentation this year may be a farewell one.

During Ph.D. studies at Caltech, Jim developed time-dependent calibration of birefringence properties of viscoelastic materials and demonstrated the need to employ this method in experimental photoelastic studies of wave propagation in polymeric materials (reported in an early contribution to *Experimental Mechanics*). As an associate fellow of the American Institute of Aeronautics and Astronautics, he examined hypervelocity impact on

materials for NASA and developed engineering graphs and formulas to design meteoroid protection structures for long endurance spacecraft. Recent work in nonlinear behavior of viscoelastic materials led to his presentation at this conference of further ways to analyze and understand the results of nanoindentation testing of polymers.

Jim wants to thank the Society for all the opportunities offered him to participate and especially for the companionship and collaboration with its members. In sum, he wishes everyone to know that he will remember all in the Society of Experimental Mechanics and pray for its continued success.



President's Message continued from page 1

the society. My very first contact with SEM, as well as my first professional talk was in 1987 when my Advisor, Professor Daniel Post, stuffed a group of his Virginia Tech students into a van to attend such a symposium hosted by Professor Taylor at the University of Florida. The Southeast continued this tradition until about 10 years ago. The tradition was recently reestablished when I hosted the symposium last year and Paul Hubner, at the University of Alabama, hosted earlier this year. Next year, Mike Sutton and Bill Chao will continue the tradition at the University of South Carolina. Additionally, next year Hugh Bruck at the University of Maryland, Ioannis Chasiotis at the University of Illinois and Guruswami Ravichandran at Caltech have volunteered to host in the Northeast, Midwest and West respectively.

Our publications are stronger than ever. *Experimental Mechanics* has recently increased the number of volumes and the

number of papers as well as its impact. *Experimental Techniques* has changed format from a magazine/newsletter to that of a journal. Our newsletter (*Experimentally Speaking*) is now distributed on-line. These publications are destined to make a broader impact in years to come.

My appointments for the coming year are as follows:

- Tom Proulx as Secretary of the Society
- Jon Rogers as Treasurer of the Society
- Ryszard Pryputniewicz, Immediate Past President, as Chair of the Editorial Council
- Nancy Sottos as an at-large member of the Honors Committee
- Cosme Furlong as a member of the National Meetings Council
- Emmanuel Gdoutos will replace me as the Chair of the Technical Activities Council

- K. Jane Grande-Allen will become an Assistant in the Technical Activities Council
- Paul Reynolds will become an at-large member of the Applications Committee
- Todd Simmermacher will become an at-large member of the Research Committee

Please thank the SEM staff for their efforts, because they are the glue that holds our society together. I look forward to serving as President and encourage you to give me your suggestions on how the society can serve your needs. And, please don't hesitate to contact me with your concerns.



Experimentally Speaking ...

Staff Changes at SEM

Kathy Ramsay's upcoming retirement (more in our next newsletter) will lead to changes in the staff at SEM. Jen Tingets will take over Kathy's duties as Conference Manager. Over the next few months she will transition into her new duties. So, don't be surprised if your emails requesting program changes and other conference issues are returned by Jen.

Jen's duties will be assumed by our newest staff member, Alessandra de la Vega. Alessandra will start work at SEM on August 29, 2011 and will work with Jen to take over the support of *EM* and *ET* as well as other assignments. We are

excited to have a person of Alessandra's background and qualifications. It is a bonus that we now have a staff member who is fluent in Spanish!

Alessandra de la Vega holds a B.A. in art history from the College of New Rochelle, a B.S. in Spanish and Secondary Education from Western Connecticut State University, and a M.A. in Spanish from Southern Connecticut State University. A resident of Connecticut for over twenty years, she is originally from Barcelona, Spain. Amongst her hobbies are reading, knitting, and embroidery. She is active in her church and values the long history and traditions of her faith.



She is very excited to be starting at SEM and looks forward to a long future there.

I know that you will join us in welcoming Alessandra to SEM. After all, we are the friendly Society.

7 School Street • Bethel, CT 06801

