

Volume 2 | Issue 1 March | 2011

Message from the President

Current changes and future directions in SEM ...

There were a number of changes introduced during 2010 to facilitate services that the "Friendly Society" provides to her members including, but not limited to, the following:

1. All Society information (including the President's Column) has been removed from *Experimental Techniques*, and will now appear in this newsletter. The newsletter's inaugural issue was introduced last December. During its meeting in January, the SEM Executive

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Society for Experimental Mechanics, Inc.

7 School Street • Bethel, CT 06801 USA http://sem.org • 203.790.6373 director@sem1.com Board reviewed recommendations received from SEM members for a name for the Newsletter. They decided to christen it *Experimentally Speaking*... Hence, the Society's newest publication will be affectionately referred to as *ES* in addition to the other two already well-established publications (*EM* and *ET*).

- 2. The departments (Modal Space and Optical Methods with a new one coming soon on Digital Image Correlation) will continue to be published in *ET*.
- 3. The tag line on the cover of ET now reads: Developments, Applications and Tutorials in Experimental Mechanics Techniques.
- 4. The cover of *ET* was re-designed for 2011. The interior layout will change over time as new articles are published online.
- 5. SEM granted Springer an exclusive license to publish and sell proceedings from IMAC and the SEM Annual Conferences for a period of 5 years beginning with the 2011 Conferences.
- 6. All conference attendees will now receive the conference Proceedings by downloading from the Springer Web site. The inaugural Proceedings, for IMAC-XXIX, will be available soon. Future conference proceedings will be available



Ryszard J. (Rich) Pryputniewicz, SEM President, 2010–2011

at the time of the conference.

7. Springer will give the material much wider distribution than we ever could, which is clearly directly in line with the mission of SEM. Furthermore, the proceedings will be submitted to all of the major indexing and abstracting services (including ISI). This will be a significant benefit for our authors and SEM and will facilitate dissemination of our intellectual property.

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SEM Member Achievements

Dr. Thomas Lagö at NASDAQ Closing Ceremony

Dr. Thomas Lagö was invited to attend the August 20, 2010 NASDAQ closing ceremony and got to "ring the bell." Dr. Lagö is Chairman of Acticut International, adjunct professor at the University of Arkansas and the Green Valley International Liaison. The NASDAQ invitation came as part of the Stuart Clark Venture Challenge 2010, which was won by Silicon Solar Solutions who, in turn, invited Green Valley to participate in the closing ceremony.

Green Valley Development is headquartered in Northwest Arkansas and is a global player in sustainability and Green Technology. Its MISSION is to "Connect the world's best sustainability innovators, grow local companies, recruit new companies and technologies; then coordinate just in time delivery of the capital, resources, and services needed for a Green Valley company to excel in the world market."



Dr. Thomas Lagö on the NASDAQ tower in Times Square, New York

Dr. Ryszard J. Pryputniewicz Elected to European Academy of Sciences and Arts



Dr. Rich Pryputniewicz at IMAC-XXIX, February 2011 in Jacksonville, Florida

SEM President, Rich Pryputniewicz, has received notice from Prof. Dr. Felix Unger, President of the European Academy of Sciences and Arts (EASA), that during the last senate meeting of the Academy he was elected to become a member of the Academy and was assigned to the area of Technical and Environmental Sciences. Furthermore, Dr. Unger indicated that conferral of the membership will take place during a special session of the Academy scheduled to take place on Saturday, 5 March 2011, in Salzburg, Austria.

In his message he also indicated that currently EASA has over 1,400 members. The most prominent are His Holiness Pope Benedict XVI and 28 Nobel Prize winners. The Academy is a transnational, interdisciplinary body which works especially on European issues.

The Academy consists of 7 classes: Humanities, Medicine, Arts, Natural Sciences, Social Sciences/Law/ Economies, Technical/Environmental Sciences, and World Religions. In all classes various projects are carried out and intensive and detailed workshops and symposia are held.

Chuck Taylor – 100 Meetings and Counting . . .

When we gather at Mohegan Sun this June, Chuck Taylor will be there. What you may not realize is that this will be the 100th SEM/SESA meeting that Chuck will have attended. Yes. That is correct, 100 meetings. When I heard this bit of information, I decided that I needed to try to get some idea of the magnitude of this feat.



According to our records, Chuck joined SESA in 1947, and 2011, therefore, marks his 64th anniversary as a member. From 1943 through 1988, the Society had two full technical meetings per year. So, since Chuck joined in 1947 this is a potential 84 meetings Chuck could have attended. From 1989 through 2011 would add another 23 potential meetings to this total. For completeness, we should also add the Fall specialty conferences sponsored by the Society in: 1989-1994, 2003-2004, and 2008-2010 and the 24 IMAC meetings organized by SEM. This is another 35 potential meetings. So, over the period of time Chuck has been a member, the Society has conducted approximately 142 meetings.

Over a 64-year period, Chuck has attended 70% of all SEM/SESA meetings. If you do not consider the Fall Specialty Conferences, or the IMAC conferences which were outside his field of technical interest, he has attended 100 out 107 meetings – an astounding 93%! This really is a remarkable achievement.

But, the fact that Chuck will have attended 100 meetings does not really tell the whole story. I am not going to try to summarize Chuck's career. There are others better able to do that. I am going to try to tell you a little bit about Chuck and SESA/SEM. The C.E. Taylor award given out biannually by SEM is given to: "... an SEM member who demonstrates both technical excellence in optical stress analysis and good citizenship within SEM. Good Citizenship shall be defined as the demonstrated commitment of an individual to the betterment of the Society for Experimental Mechanics and the field of experimental mechanics in general." Chuck Taylor is Good Citizenship personified.

The easiest way to summarize Chuck's early contributions to SESA is to simply say from about 1951 through 1970 you will find Chuck's name as someone involved either as a committee member. committee chair, Executive Committee member, and, of course, President 1966-1967. As Chair of the Papers Committee Chuck was directly involved in the birth of Experimental Mechanics. With one exception, there are too many other activities to mention individually.

The exception concerns Chuck's efforts as SEM Historian. From 1998 through 2006, Chuck authored or arranged for an article in nearly every bi-monthly issue of Experimental Techniques. Each of these dealt with an individual who contributed

greatly to Experimental Mechanics and the Society. From these articles you not only learn about the history of the field and the society, you also get a glimpse of the cast of characters who were involved. From William Simmons, the co-inventor of the strain gage, who "...chose to dress in Renaissance costume complete with tutu and appropriate shoes,", to "... Bill Bean, a master showman. He was a consultant to industry on dynamic strain measurement. As a showpiece he used an arrow with gages attached and trailing cables to his instruments. An eight-foot bow shot the arrow at a five-foot target ten feet away and invariably hit it. Then he proudly showed the impact-stress history recorded by his instruments." These articles have really brought the early years of the Society to life.

It is because of people like Chuck that the "Friendly Society" has earned its name. Congratulations on number 100, Chuck. We'll look for you in California for number 101.

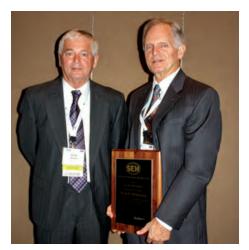
- Tom Proulx, SEM Executive Director



IMAC-XXIX

Conference & Exposition on Structural Dynamics February 2011 • Jacksonville, Florida





IMAC Conference Chair, Al Wicks, and Mark Richardson - recipient of the D.J. DeMichele Award



(left to right) Dave Brown, Charlie Pickrel - IMAC_XXIX Plenary Lecturer, Randy Allemang, George Davis, Dan Inman, Dave Ewins



Al Wicks, Zhu Mao - recipient of the D.J. DeMichele Student Scholarship Award, and his advisor, Mike Todd



SEM Silver Certificate Members, Yvan Champoux (left) and Al Wicks (right) with SEM President, Rich Pryputniewicz



Rich Pryputniewicz, Al Wicks, John McFarland - recipient of the 2010 Model Validation and Uncertainty Quantification Best Paper Award, and Matt Allen of the MVUQ Technical Division



James Lally and Gary Foss



Carlo Russo, Elvio Bonisoli and Carlo Enrico Carcangiu



George Bissinger, Lothar Gaul, his wife Ulrike Else Kat Gaul-Reiners, and Daniel Rittel



Krystal Deines, Kevin Remick, Ryan Schultz, Justin Vanness, and Chuck Van Karsen



Mike Todd, Pete Avitabile, Dave Zimmerman, and Daniel Kammer



Alan Szary and Kyle Brown of Precision Filters, Inc. talk with Jason Foley



Rich Cadille and Bill Zwolinski of Kistler talk with Dave Change of Dytran Instruments, Inc.



Kevin Westhora and Laurie Marquart of Dytran Instruments, Inc. talk with an attendee



Winfried Klass of Data Translation talks with an attendee



Shawn Richardson of Vibrant Technology, Inc. talks with Douglas Bendele of National Instruments

THANK YOU to our Sponsors

Our sincere gratitude goes to the following Exhibitors for their various IMAC-XXIX sponsorships:











NEW - On the SEM Web Site

SEM Conference Proceedings on http://sem.org

In case you have not noticed, we have begun to make available SEM and IMAC conference proceedings papers on our Web site. If you go to http://sem.org and hover over the "Conferences" tab, a dropdown menu will appear and the bottom selection is "Conference Proceedings."

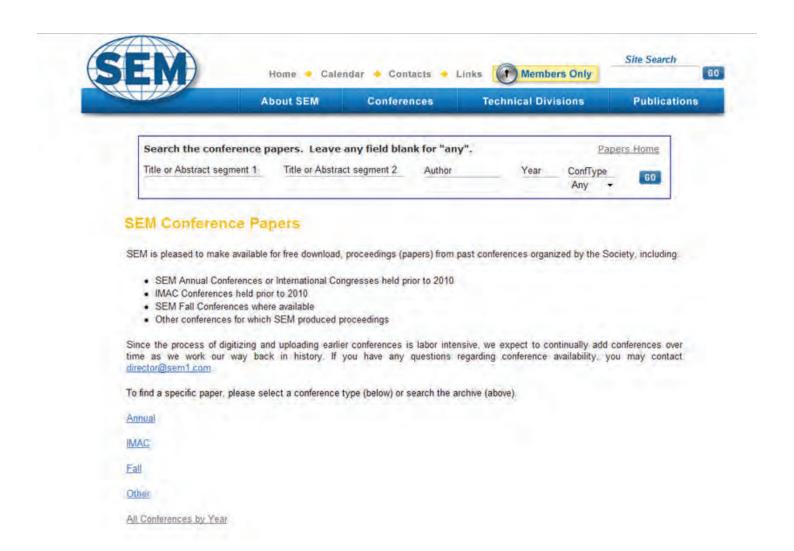
Click on this selection and you will see the screen below.

At the present time, we have available SEM Annual Conferences (or Congresses) and IMAC Conferences for the period 2002 through 2009 as well as the 4th Residual Stress Summit and IMPLAST 2010. This collection is more than 4600 papers. These papers are fully searchable or you can browse the complete listing. You can download, at no charge, any papers of interest as pdf files.

These online proceedings are an excellent way to search for paper in a particular topic or by a particular author, or to search for and download individual

papers. It would be cumbersome to try to download an entire conference.

SEM will continue to make available CD (or in some cases, print) copies of the complete conferences from 2009 and earlier through our online bookstore, http://sem.org/pub-catalog.asp. From 2010 onward we have an agreement with Springer to produce these proceedings, and they will be available at http://springer.com.



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8. Springer intends to make the proceedings available in smaller logical groupings. For example, for IMAC-XXIX there will be volumes for Advanced Aerospace Applications: Linking Models and Experiments; Modal Analysis Topics; Civil Engineering Topics; Rotating Machinery, Structural Health Monitoring, Shock and Vibration; Sensors, Instrumentation and Special Topics. Similar groupings will be made for the 2011 SEM Annual Conference (e.g., MEMS, Dynamic Behavior, MTDM, etc.). In other words, Tracks and Symposia could be obtained separately in both print and electronic versions.

The IMAC series of conferences was inaugurated in 1982. Since its modest beginning the Conference has grown to a major international event. Earlier this year, from 31 January to 3 February, IMAC-XXIX took place at the Hyatt Regency in Jacksonville, FL. The 2011 IMAC was preceded by 3 short courses and included a number of tutorials and lectures relating to the theme of the Conference: Advanced Aerospace Applications. This Conference and **Exhibition on Structural Dynamics** included over 300 papers that were organized into 58 sessions addressing topics of contemporary interest. All sessions were arranged into thematically related sequences that provided a forum for profound discussions of current trends and future directions in experimental mechanics, especially as it relates to advanced applications in transportation, energy, and other topics relevant to today's and future needs.

High standards for the Conference were set by the Plenary Lecture on *Structural Dynamics, Models and Measurements in Aerospace Engineering* delivered on Monday morning, as the first technical presentation, by Mr. Charles Pickrel, Boeing Test & Evaluation, Northwest. I have enjoyed discussing, on numerous occasions, with Charlie various aspects of dynamic modeling and measurements,

especially as they can be performed using optical methodologies which are of mutual interest.

All in all, IMAC-XXIX made history as a well organized Conference with technical sessions accompanied by relevant exhibits by 36 vendors who were very willing to discuss applications drawing on their own technical excellence. This excellence was also exemplified by Awards bestowed upon our colleagues for their untiring, long term commitment to and on behalf of the Friendly Society.

IMAC, ably led by Al Wicks (actually I attempted to refer to Prof. Wicks by his full first name, but was informed that this privilege is reserved only for his Mom and our Kathy) as the Conference Director and his Advisory Committee as well as the Organizing Committee is preparing for IMAC-XXX which will take place next year also in Jacksonville. This is good because, I feel, Al and his Committees had an opportunity to scout the area in preparation for the 30th Birthday of IMAC. My best wishes for continued success of the IMAC series. and I am looking forward to the IMAC 30th Birthday Celebration, next year, and many more to come.

Please plan to participate in IMAC-XXX and also join me in wishing Happy Birthday to IMAC!!!

I will welcome all ideas and advice you wish to offer. Feel free to send me an e-mail at rjp@wpi.edu.

Thank you. I wish you the best of success in whatever you think about and work on. I am looking forward to receiving your input.

(Lynas). Trypastureuse.

SEM Gold and Silver Members

The following SEM members have reached a Gold or Silver membership milestone. We sincerely thank them for their years of service and dedication to SEM.

50-Year Members

Gold Certificate

James Dally
Norton H. Goldstein
Albert H. Romboni
Cesar Sciammarella
Robert Sierakowski
Jack E. Smith
Robert W. Troke
Charles Wu

25-Year Members

Silver Certificate

Giovanni Belingardi Paolo Cappa Yvan Champoux Sean Franklin Francesco Ginesu Chao-Hung Lin Richard Meyer Gerald Nurick Carol Parssinen Gary Schajer Koji Shimizu Hisaaki Tobushi Alfred Wicks



And the Winner is ...

I hope you have all noticed the new name of our newsletter, Experimentally Speaking... This was selected from 18 suggestions received from 10 different SEM Members. Congratulations to Hareesh Tippur of Auburn University for the winning entry. Hareesh will enjoy a complimentary registration to the SEM Annual Conference this June.

There is Some History for This Name

I wonder how many of you remember, or even knew, that *Experimental Mechanics*, for approximately the first 20 years of its life, had a guest editorial in each issue. This editorial was entitled "Experimentally Speaking." For the first

year or two the guests were generally people associated with SESA. From about 1963 to the early 1980's, these guest editorials were from people outside of SESA. I took some time to summarize where these contributions came from. A guick summary showed:

- 71 University Presidents, Chancellors, etc.
- 63 Corporate Executives (CEO, Chairman, President, etc.)
- 32 Directors or Asst. Dir. of Gov. Agencies (NASA, etc.)
- 11 Society Executives (ASME, NAE, etc.)
- 9 Cabinet Secretaries
- 6 U.S. Senators
- 5 U.S. Congressmen

- 1 U.S. Governor
- 1 Presidential Science Advisor

Vice-President Hubert H. Humprey supplied one, as did Igor Sikorsky, Henry Eyring, Edward Teller, Stephen Timoshenko, William Bradford Shockley, and Captain Jacques-Yves Cousteau. If you do not recognize all of these names, your background in the history of science and engineering may be lacking. Google them and you will find what you need to know.

Our modest newsletter will not reach these exalted highs (or lows depending upon your viewpoint!) but it is interesting to see our roots.

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