

## Pressure Vessels and Piping Division Newsletter

Les Antalffy, Editor

Spring 2011

### A Message from the PVP Division Chair



Young W. Kwon

The success and growth of our Pressure Vessels and Piping Division (PVPD) is attributed, for many years, to the participation, service, and dedication of our PVPD volunteers. With such countless efforts, our annual conferences have provided a forum to foster the development and exchange of the state-of-art knowledge and information in the pressure technology areas. The number of participants has grown steadily during the past years. In particular, the total number of attendees exceeded 900 for the last three conferences, consecutively. We expect a good attendance at our coming July meeting in Baltimore. One of the major reasons for our successful conferences is believed to be the resurgence of nuclear energy. Another important reason is the globalization of PVPD. PVP 2009 conference in Prague has certainly spurred the globalization vision. The PVPD membership has increased to more than 4000 in 2010 making approximately 4.5% of the total membership of ASME while the total ASME membership has decreased slightly last year. In particular, 30% of the primary PVPD membership is from outside USA. As a result, PVPD will continue to move toward the global arena with more fre-

quent annual conferences outside USA where more global participation is expected.

One of our recent PVPD activities is called LinkedIn, which was initiated by our Membership Chair Michiel Bronger, to bring together people who have common technical interests through the website. Through the website, people can raise technical questions, discuss them, and provide answers. I believe this activity will be a good vehicle for the PVPD annual conference by organizing topics of common interests.

This year's large scale earthquake and tsunami in Japan affected our friends and colleagues. Many of them have suffered from the horrific incident. We wish them a speedy recovery to return to normal life. The incident also brought a great challenge to engineers and scientists. Because our Division has many technical experts in nuclear power plant design and safety, we believe many of our PVPD members have been involved with the incident. As a result, we expect to hear many technical discussions on what happened, how and why this happened, and what lessons were learned, not only at this conference but also in following years of PVP annual conferences.

Finally, as my term as Division Chair and a PVPD Executive Committee member ends

(Continued on page 2)

### A Message from the Conference Chair



Ronald S. Hafner

Preparations are well under way for the PVP-2011 Conference, to be held at the Baltimore Marriott Waterfront Hotel, in the Inner Harbor area of Baltimore, Maryland, from July 17–21, 2011. The Conference will be sponsored by the ASME Pressure Vessels and Piping (PVP) Division, with additional participation from the ASME Non-Destructive Evaluation (NDE) Division, and the ASME Nuclear Engineering Division (NED). The theme for the Conference this year is *Pressure Vessel Technologies – A Look Ahead into the Next Decade*. We have received almost 700 papers in eleven technical tracks, including more than 50 student papers for competition at both BS/MS and PhD levels, with representation from all over the world. In addition to the technical paper sessions, panel sessions are also included in the program. Three tutorials and two workshops are also being planned, which will be given on Sunday, July 17<sup>th</sup>, Monday, July 18<sup>th</sup>, Tuesday, July 19<sup>th</sup>, and Wednesday, July 20<sup>th</sup>, 2011. The NDE Demonstration Forum and the Software Demonstration Forum are scheduled for Monday, July 18<sup>th</sup>, and Tuesday, July 19<sup>th</sup>, 2011, respectively.

(Continued on page 2)

## Division Chair Message

(Continued from page 1)

this July, I would like to express my sincere appreciation to many people who have supported and assisted me during the last several years. My thanks goes to the EC and Senate-Select members, Technical Committee Chairs, Technical Program Representatives, and ASME staff. Without their help, it would have been difficult for me to carry out all of my responsibilities.

PVP-2011 Conference is well underway with leadership of Ron Hafner, the Conference Chair and Mike Nitzel, the Technical Program Chair. Please join us in PVP-2011 and I look forward to seeing you in Baltimore!

Warmest regards.  
Young W. Kwon  
Chair, PVP Division

## Conference Chair Message

(Continued from page 1)

The Conference Plenary Session will be held on Monday, July 18<sup>th</sup>, 2011. Opening Remarks will be presented by incoming ASME President, Ms. Victoria A. Rockwell. Dr. Douglas M. Chapin, of MPR Associates, Inc, will then present an *Overview of Fukushima Daiichi Events: Location, Technology, Chronology, Damage, Current Conditions, and Lessons Learned*, followed by a discussion on the *Direction of the Power Industry after Fukushima-Daiichi*, by Mr. Laney H. Bisbee, from Structural Integrity Associates, Inc.

We have also planned a series of exciting social events, beginning with the Conference-Wide reception on the evening of Monday, July 18<sup>th</sup>, and a truly unique Conference social program with a dinner planned for the evening of Wednesday, July 20<sup>th</sup>, at the National Aquarium in Baltimore, a dinner that promises to be like nothing else that has ever been offered. There will also be two separate, daytime sightseeing tours for families and

guests on Monday, July 18<sup>th</sup> and Tuesday, July 19<sup>th</sup>. The Monday tour will be: *The Charm City: A Day of History*, which will provide an historical background of the area, interesting landmarks, and tips on special shopping and sightseeing areas. The Tuesday tour will be: *A Walking Tour of Hampden and Lunch at Café Hon*, with Hampden being one of Baltimore's most distinctive neighborhoods, and Café Hon being one of Baltimore's most distinctive places to be seen.

Please visit the Conference Web Site at <http://www.asmeconferences.org/PVP2011> for more detailed information on both the technical and social activities. Please also make sure that you complete your registration for the Conference and for the hotel prior to the cut-off dates indicated on the registration forms.

As a final note, I would like to express my sincere thanks to all who have helped with the preparation for this year's Conference, as well as those who have helped sponsor the Conference. Without their help, this year's Conference could not have been prepared successfully.

I look forward to seeing all of you in the *Charm City* of Baltimore, Maryland, in July of 2011.

Ronald S. Hafner  
Chair, PVPD Conference

## A Message from the PVP Division Senate



Artin A. Dermenjian

The Senate of Past Chairs of the American Society of Mechanical Engineers (ASME) Pressure Vessels and Piping Division (PVPD) will sponsor a Student Paper Symposium and the 19<sup>th</sup> Annual PVPD Student Paper Competition at the PVP 2011 Pressure Vessels and Piping Conference in Baltimore, MD, July 17-21, 2011.

Technical papers, authored by graduate and undergraduate students, are invited in all areas relevant to the activities of the PVPD Technical Committees.

Only papers submitted directly into one of the Student Paper Symposium and Competition sessions are eligible for the competition. A total of 32 student papers will be selected for presentation and publication at the 2011 PVP Conference. Other papers which are not selected will be presented in general conference sessions and published as part of the general conference proceedings.

From these 32 selected papers, the PVPD "Senate Review Committee" will identify 16, Student Paper Competition finalists from the two categories — the Ph.D. level and the BS/MS level, prior to the conference

Each student author of the finalist papers will receive a PVP Certificate of Recognition or a Special Certificate (for the winning papers). All student authors attending the Conference are expected to attend — and will be recognized at — the PVP Honors Luncheon on Wednesday, July 20, 2011.

A \$1,000 award will be made to each of the presenting Student Paper Competition Finalist authors during the Honors Luncheon. A \$500 award will be provided to each presenting Non-Finalist author.

In addition, in each category (Ph.D. and BS/MS), \$1000 will be awarded to the presenting author of the Outstanding Student Paper; \$800 will be awarded to the presenting author of the First Runner-Up Student Paper, and \$500 will be awarded to the presenting author of the Second Runner-Up Student Paper.

Artin Dermenjian  
PVP Division Senate President

To subscribe to Journal of Pressure Vessel Technology, please contact:

E-mail: [infocentral@asme.org](mailto:infocentral@asme.org), Phone: 1-800-843-2763 or 1-973-882-1170, Fax : 1-973-882-1717

# Professional Development Report



**W**orkshops and Tutorials present an excellent opportunity to further your knowledge-base by being exposed to diverse topics and exchange opinions

and ideas both from industries and academia. The 2011 PVP Conference in Baltimore, Maryland will offer a two-session workshop on Sunday, July 17 and three technical tutorials—one each day on Monday, Tuesday, and Wednesday of the conference. Please find time in your conference schedule to attend these informative sessions. Following are brief descriptions of the presentations in each category.

## Workshop

### Acoustic Emission In Metals And Composites

Part I, Sunday, July 17, 9:00 am – 11:30 am, Harborside Ballroom, Salon B

Part II, Sunday, July 17, 1:00 pm – 3:30 pm, Harborside Ballroom, Salon B

**Sponsored by the MISTRAS Group and the ASME NDE Division.**

This is a two-session workshop intended to provide the attendee with a basic understanding of the Acoustic Emission (AE) phenomena, the terminology, and how it applies to testing metals and composites. Brief descriptions of each session follow.

Part I (Morning Session): Dr. Ronnie Miller will discuss the following topics related to AE in metals:

- Definition of AE as a nondestructive testing (NDT) technique
- Sources of AE energy
- Events in metals detectable by AE technology
- Differences between AE and other NDT methods
- Typical applications of AE technology in laboratory and field testing
- Review of applicable industry codes and standards and ASME code cases
- Desktop demonstration of AE in metals

Part II (Afternoon Session); Dr. Adrian Pollock will discuss the following topics related to AE in composites:

- Use of AE in the evaluation of mechanical integrity of composite materials and structures
- Effectiveness of AE as a research and development tool
- Basic AE phenomena in composites
- Source mechanisms of AE in composites
- Relationships between different sources and the related AE signals
- Examples of industrial applications.
- Review of applicable industry codes and standards and ASME code cases
- Desktop demonstration of AE in composites

## Tutorials

### Technical Tutorial I

#### ASME Section VIII, Division 3 Alternative Rules for Construction of High Pressure Vessels

Monday, July 18, 2:00 pm – 5:45 pm, Harborside Ballroom, Salon B

**J. Robert Sims, Becht Engineering Co., Inc.**

This tutorial focuses on the differences between Section VIII, Division 3 (Alternative Rules for Construction of High Pressure Vessels) and Section VIII, Division 2 (Alternative Rules for Pressure Vessels). Requirements for materials, design, fabrication and testing will be presented, with special emphasis on the following areas:

- Methods for calculation of residual stresses due to autofrettage
- Using closed form solutions
- Using finite element analyses
- Methods for fracture mechanics analysis to determine the design fatigue life.
- Detailed examples will be provided.
- Methods for correcting the traditional “S-N” fatigue life calculations for mean stress.
- Differences in elastic-plastic analysis and structural stress methods compared to Division 2.
- Fracture toughness testing requirements
- Fabrication requirements.

### Technical Tutorial II

#### Uncertainty Assessment in Engineering Design and Analysis

Tuesday, July 19, 8:30 am – 12:15 pm, Harborside Ballroom, Salon B

**Narendra Gupta, Savannah River National Laboratory**

This tutorial will present some basic concepts and tools to assess uncertainty that an analyst should be familiar with while using computational models for analysis. The following topics will be discussed:

- What is uncertainty?
- Uncertainty and sensitivity
- Probability distributions and basic statistics
- Basic concepts of Design of Experiments (DOE)
- Sampling schemes used in assessing uncertainty
- Propagation of uncertainty in computational models
- Uncertainty and decision analysis

### Technical Tutorial III

#### Flow Induced Vibration of Heat Exchangers & Steam Generators

Wednesday, July 20, 8:30 am – 12:15 pm, Harborside Ballroom, Salon B

**Michel Pettigrew, École Polytechnique**

This tutorial is for the non-specialist and will cover the following basic steps to analyze a shell-and-tube heat exchanger:

- Flow velocity distribution
- Tube frequencies and mode shapes
- Tube damping in gases, liquids and two-phase flows
- Vibration excitation mechanisms (fluidelastic instability, vortex shedding resonance, random turbulence, and acoustic resonance)
- Vibration response calculations
- Fretting-wear damage prediction
- Design guidelines.

The participants are asked to bring their calculators and do sample calculations. A heat exchanger will be analyzed from a vibration point of view.

Please check your conference program and/or posters located in the conference registration area to verify room assignments for these events. Certificates of attendance will also be available for the workshop and technical tutorial sessions.

*Mike Nitzel  
Chair, PVPD Professional Development*

# Journal of Pressure Vessel Technology



G.E. Otto Widera

**J** PVT promises to provide six interesting and thought-provoking issues during 2011. The February, 2011 issue included seven papers covering the special topic "European Research and Analysis of Buckling". Currently we are preparing papers for another special topic, "ASME Codes and Standards", to be published later this year.

Thanks to outgoing JPVT Associate Editors F. W. (Bud) Brust, L. Ike Ezekoye and Shawn Kenny. Their contributions of time and expertise have helped to make JPVT an outstanding journal and are much appreciated.

We welcome five new Associate Editors to JPVT; Kunio Hasegawa in the Materials and Fabrication area; Young W. Kwon as Associate Editor at Large; Saeid Mokhtab in the Pipeline Systems area; Allen C. Smith, Jr. in the Operation, Applications and Components area; and Xian-Khui Zhu in the Materials and Fabrication area. Samir Ziada continues to serve as Associate Editor in the Fluid Structure Interactions area. Congratulations to all of you on your appointment and welcome to JPVT.

While a large number of research papers are submitted to the Journal, the number of design innovation and technology review papers submitted is minimal. We especially invite you to submit your technology review papers. All papers should be submitted via the Journal Web tool at <http://journaltool.asme.org/Content/index.cfm>. An outstanding team of Associate Editors and Reviewers is committed to insuring that JPVT is the leading journal of its type in the world. Please contact Jessica Bulgrin, my assistant, via e-mail at [Jessica.bulgrin@marquette.edu](mailto:Jessica.bulgrin@marquette.edu) or by phone at 414-288-4427 with any questions you have on submitting manuscripts or on the publication process. We look forward to sharing your research with our industry.

If you or your company are not yet subscribing to either the hard copy or the electronic version of *The Journal of Pressure Vessel Technology*, you can do so on-line at [http://www.asme.org/Publications/Journals/Order\\_Subscribe.cfm](http://www.asme.org/Publications/Journals/Order_Subscribe.cfm) or by contacting ASME Customer Service at the following e-mail address or phone number:

E-mail: [infocentral@asme.org](mailto:infocentral@asme.org)

Phone: 1-800-843-2763

or 1-973-882-1170

G. E. Otto Widera, Ph. D.

Journal Editor

## PVPD Programs Report 2011



Daniel T. Peters

**P**reparations for the 2011 ASME Pressure Vessels & Piping Conference is almost complete. The Conference will be held in Baltimore, Maryland, at the Baltimore Marriott Waterfront Hotel, July 17-21, 2011. The PVP Conference Chair is Ron Hafner from Lawrence Livermore National Laboratory. The Technical Program Chair for the Conference is Michael Nitzel, retired from Idaho National Laboratory. More than 200 paper and panel sessions are planned, as well as Tutorials, the NDE and Software Demonstration Forums, and the Student Paper Symposium & Competition.

The 2012 ASME Pressure Vessels and Piping Conference is currently being planned in Toronto, Canada at the Sheraton Centre Toronto Hotel. The Conference dates will be July 17-22, 2011. The PVP 2011 Conference Chair will be Michael Nitzel, and the PVP 2012 Technical Program Chair will be Dr. Dennis Williams. The *Short-Form* Call for Papers has been issued, and is presented on Page 11 of this Newsletter. The *Long-Form* Call for Papers is still being worked, and will soon be available on the PVP Website at <http://www.asmeconferences.org/PVP2012>.

Daniel T. Peters  
Chair, PVPD Programs

## Awards Presented at PVP 2010 / K-PVP Conference in Bellevue, WA



Dennis K. Williams

**V**oluntary contributions to the Society, the PVP Division, and the pressure vessels and piping industry are recognized through a host of various ASME Society and Division honors and awards. Historically, the Honors and Awards Luncheon, which is held during the annual ASME Pressure Vessels and Piping Conference, is a tremendous opportunity to recognize prominent members of the Division.

The first S.Y. Zamrik Pressure Vessels and Piping Medal was presented to Dr. Toshiyuki Sawa of Hiroshima University. Dr. Sawa started presenting papers at the PVP Conference in 1991 and has been a loyal ASME supporter during the past 20 years. In addition to preparing and presenting numerous technical papers, he consistently developed and co-developed outstanding technical sessions in the area of bolted joints and flanges, was awarded the Outstanding Technical Session in 2004, and has been a member of the Computer Technology Technical Committee since 1991. He is best known in PVP circles for his research into the complicated behavior of bolted joints and flanges.

The ASME Dedicated Service Award was presented to Dr. A. G. (Jack) Ware, PVPD Senator. Dr. Luc H. Geraets, as Chair of the PVP Division (2009-2010), was presented the ASME Board of Governors Award. The PVP was also pleased to recognize seven new Fellows of the Society, including Hakim Bouzid, Jong Chull Jo, Edward Rodriguez, Guy Roussel, Toshiyuki Sawa, Albert E. Segall, and Samir Ziada. The Society congratulates all of these outstanding members in their elevation to Fellow grade membership within the ASME.

(Continued on page 5)

## Awards Presented at PVP 2010 / K-PVP Conference in Bellevue, WA

(Continued from page 4)

Division awards included the S. S. Chen PVP Outstanding Service Award, which was presented to Gerry Slagis. Certificates of Appreciation or Recognition were presented to various individuals for services as officers for the Division and contributors to PVP2009 Conference (Technical Committee Chairs, Associate Editors of the ASME JPVT, etc.), services to Technical Committees, outstanding performance at the Chicago 2009 Conference (Papers, Sessions), or PVP2010 Conference special activities (authors of Tutorials, Plenary Speakers, Technical Program Representatives, etc.). Awards consisting of a certificate and various monetary sums were presented to the semi-finalists of the Student Technical Paper Competition, which was comprised of sixteen international student authored papers.

Dennis K. Williams  
Chair, PVPD Honors and Awards Committee

## PVPD Communications



Les P. Antalfy

There were nine post-conference symposium volumes published out of the very successful 2010 PVP Conference held in

Bellvue, Washington. The technical paper contributors names are shown in the cover page of each volume, as well as in a separate page inside each volume. In addition, the CD publication which contains all papers presented at the conference will include the major editors' names in the table of contents of each track.

Based on the present number of papers accepted for the 2011 Baltimore Conference, nine post conference volumes are also planned for publication in 2011. Those are *Codes & Standards – 2011*, *Computer Applications/Technology & Bolted Joints – 2011*, *Design and Analysis – 2011*, *Fluid-*

*Structure Interaction – 2011*, *High-Pressure Technology, Nondestructive Evaluation, and Student Paper Competition – 2011*, *Materials and Fabrication – 2011*, *Operations, Applications, and Components – 2011*, and *Seismic Engineering – 2011*.

The PVPD newsletter is published every year in the Fall/Winter and Spring, respectively. Members are encouraged to provide articles of interest to the PVP community. As seen in the last newsletter, the membership and JPVT links are included in the newsletter for convenience. In addition, a brochure of the PVP Division is available to advertise the PVP Division activities at other different meeting venues.

Leslie P. Antalfy  
Chair, PVPD Communications

## PVP Division on LinkedIn

The Pressure Vessel and Piping Division has its own group on the LinkedIn.com site. Membership Chairman, Michiel Brongers has been very capably administering the site for the Division.

The number of individuals linked to the group has been steadily growing since its start in mid-2009. There are presently some 2,500 members of the PVP Group on LinkedIn. There are also many active discussion threads on the site.

Leslie P. Antalfy  
PVP Communications Chair

## Division Membership



Michiel P.H. Brongers

PVP membership, defined as the PRIMARY Technical Interest of members in the ASME database, has increased by about 300 to 4363 members over the past year. This follows the trend of the years before, as follows: about 3750 members in 2008 and 2009, and about 4050 in July 2010.

While total ASME membership declined a few percentage points in 2010, the division remains strong at 4.3% of the total. This

keeps PVP as 6<sup>th</sup> of 37 technical divisions and institutes within ASME, with regard to membership.

It is important to recruit new PVP members, and the best way to do that is to ask our colleagues to join ASME and mark "28 – Pressure Vessels and Piping" as their primary technical interest. Please take a minute to consider who in your organization may be good member, and encourage them to become part of the ASME family. As you already know, membership can continue throughout an engineer's career, and is a key to meeting people and staying up to date with the latest advancements in our field.

In 2009, we started a networking group on LinkedIn. This professional site allows you to create a personal profile (resume) and share it with others. You can link with your colleagues and friends, and see each other's contacts. At this time, the group is around 2500 members. This is great! About 50% of our PVP members have found the site, and there is still a lot of growth. Every week, I am approving several dozen new people to be added to the group. I checked this morning (04/11/11), and there were 95 active discussions on technical topics, in addition to ASME news, company promotions, and job postings in the group. The group has been very popular, and I love it that so many are taking an interest. If you are not a member of the ASME PVP group yet, I hope you consider membership. [www.linkedin.com](http://www.linkedin.com)

The subgroups for each of the division's committees are growing as well. We encourage you to take part and join in the discussions of those subgroups too. At this time, the membership of the subgroups is: Codes and Standards (206), Design and Analysis (170), Materials & Fabrication (149), High Pressure Technology (38), Operations, Applications, and Components (31), Seismic Engineering (37), Fluid-Structure Interactions (38), and Computer Applications/Technology and Bolted Joints (16).

As we continue to grow our division into the future, this web site allow us to communicate more freely. Use it to your advantage.

(Continued on page 6)

## Division Membership

(Continued from page 5)

Please renew or apply for ASME membership by registering online: [Member/Student Application](#) or by downloading and mailing the [membership application](#) or [student application](#). Alternatively, you can call: 1-800-THE-ASME (800-843-2763) or outside North America 973-882-1167 and ASME will mail you an application, or you can e-mail to [infocentral@asme.org](mailto:infocentral@asme.org) and request an application.

*Michiel P.H. Brongers  
Chair, PVPD Membership*

## Technical Committee: Design and Analysis



*Bill Koves*

**T**he D&A Technical Committee provides a forum to promote the research, development and exchange of information on design and analysis methods for the pressure vessel and

pipng industry. The D&A Committee focus is on advancement of traditional as well as new analysis methods in the areas of component design, pressure vessel integrity assessment, fatigue and fracture of pressure vessels and piping, plant fitness for service and life extension, elevated temperature design, composite materials and structures, computational fluid dynamics, probabilistic methods, robust design methods and emerging technologies.

Dr. Robert Leisher was the TPR for the current PVP-2010 Conference. The D&A Technical Committee sponsored 30 technical sessions at the PVP-2010 Conference held at the Hyatt Regency, Bellevue, Washington where over 116 papers were presented. D&A also sponsored one tutorial: Introduction To The Process Piping Code, ASME B31.3 by Charles Becht IV, Becht Engineering Co., Inc.

The D&A Committee is planning 36 technical paper sessions, on 16 different topics,

including 3 student paper sessions for the PVP-2011 Conference. In addition, one technical tutorial was proposed to the PVPD Professional Development Committee for consideration for the PVP-2011 conference with one proposal for the 2012 conference. Dr. Pierre Mertiny is the D&A coordinator for the Student Paper Competition and also will be the D&A Technical Program Representative for 2011.

The Design and Analysis Technical Committee met on Monday July 19, 2010 in the Hyatt Regency, Bellevue Washington. Twenty (20) members, two alternates, one prospective member and five guests were in attendance.

The D&A Committee welcomes one new member elected at the PVP-2010 meeting: Dr. Mingxin Zhou.

We look forward to seeing you at PVP-2011, held July 17-21 in Baltimore, Maryland. Anyone interested in participating in the Committee activities is invited to attend the D&A Committee meeting at PVP-2011 and/or contact the committee chair.

*William J. Koves  
Chair, Design and Analysis*

## Technical Committee: Materials and Fabrications



*Doug Scarth*

**T**he Materials and Fabrication (M&F) Technical Committee promotes research, development, and sharing of technical information related to material

properties, development and modeling, as well as fabrication technologies, for piping, pipelines, components and pressure vessels. The material efforts in recent years have primarily focused on fracture methodologies and subcritical crack growth with environmental effects including corrosion, hydrogen and high

temperature. Areas of interest also include mechanistic materials modeling, advanced materials development, fabrication processes, and computational and statistical methods including risk-informed. Efforts have recently been very active in the dissimilar metal welding and residual stress areas, including weld overlays, inlays and onlays.

The development of materials, NDE, and fabrication technologies leads to improvement in understanding of material performance, as well as improvement in structural design, structural integrity assessment including leak-before-break, plant life management, and fitness-for-service acceptance criteria for pressure vessels and piping systems. A number of these activities are performed in collaboration with the Codes and Standards Technical Committee to support international Codes and Standards.

At the 2010 PVP Conference in Bellevue (Seattle), Washington, the M&F TPR (Track Organizer) Bruce Wiersma, along with the topic/session organizers, developed 22 topics with 51 paper sessions. A total of 165 written papers from M&F topics were included in the conference proceedings volume, which was published in the 2010 PVP Conference CD-ROM. Because of the multidisciplinary nature of the M&F Technical Committee, four sessions were organized in collaboration with the Codes and Standards Technical Committee, five sessions were organized in collaboration with the Design and Analysis Technical Committee, and two sessions were organized in collaboration with the Operations, Applications and Components Technical Committee. A total of seven sessions were also organized in collaboration with the NDE Division.

The M&F Technical Committee also sponsored the NDE Demonstration Forum. The 2010 M&F Technical Committee Meeting was held during the 2010 PVP Conference, and was attended by approximately 55 members and visitors. Four new members were welcomed in 2010.

(Continued on page 7)

**If you are interested in applying for ASME Membership, please visit  
<http://www.asme.org/Membership/Join/> for either online or mail applications.**

## Technical Committee: Materials and Fabrications

*(Continued from page 6)*

For the 2011 PVP Conference to be held in Baltimore, Maryland, the M&F Technical Program is led by the M&F TPR Andrew Duncan. At the time of preparing this newsletter, M&F has received 176 manuscripts, with 51 paper sessions under 27 separate topics, in addition to the annual NDE Demonstration Forum. We appreciate the overwhelming response and support from the authors and the pressure vessels and piping community. We expect to have another successful year at the PVP Conference in July 2011.

The M&F Technical Committee has grown steadily through the years, and is committed to stay current with the latest technologies. We are proud to have a large international membership, which is open to all individuals over a wide variety of disciplines, and to those who are interested in fostering research and development in pressure vessel and piping materials and technologies. For more information please contact Doug Scarth, the M&F Chair, at [doug.scarth@kinectrics.com](mailto:doug.scarth@kinectrics.com).

*Doug Scarth  
Chair, Materials and Fabrication*

## Technical Committee: Operations, Applications and Components



*Stephen J. Hensel*

The Operations Applications and Components Committee provides a forum for the exchange of industry research and practice with a significant focus on the nuclear industry. The OAC provides a global forum with participation from Asia, Europe and North America. The OAC is a great place to network, find technical support and establish long term working relationships with industry peers. In the 2010 PVP Conference in Bellevue, WA the OAC had 68 papers across 21 Technical Sessions and 2 Panel Sessions. Chris Bajwa did a tremendous job organizing all the session developers by serving as the OAC Technical Program Representative.

The 2010 OAC Technical Committee meeting was attended by 23 members and perspective members. During the meeting several leadership changes in OAC occurred including introduction of the new OAC Chair Steve Hensel, Vice-Chair Mansoor Sanwarwalla, Secretary Matt Feldman, 2011 Technical Program Representative Ayman Cheta and 2011 Co-Technical Program Representative Garry Young. The outgoing OAC Chair Dennis Martens was recognized for his contributions during the past 4 years.

Allen Smith publishes an OAC Newsletter twice each year which provides up to date happenings in the OAC. Contact Allen at [acdcoSmith@aol.com](mailto:acdcoSmith@aol.com) to receive a copy.

The OAC has 9 standing Technical Subcommittees which support development of the PVP Conference Sessions. The Subcommittees and leaders are:

- SC-1: Safety, Reliability and Risk Assessment (Mansoor Sanwarwalla and Nick Gupta)
- SC-2: Qualification and Testing (Georges Bezdikian, Garry Young and Antonio Ballesteros-Avila)
- SC-3: Monitoring, Diagnostics and Inspection (Milan Brumovsky and Ike Ezekoye)
- SC-4: Toxic Substances: Storage and Transportation (Nick Gupta and Zenghu Han)
- SC-5: Pumps and Valves (Ike Ezekoye and James Chan)
- SC-6: Operations and Maintenance of Pressure Vessels, Heat Exchangers and Structures (Yasumasa Shoji, Ayman Cheta and Takayasu Tahara)
- SC-7: Piping and Supports (Ayman Cheta)
- SC-8: Plant Life Extension: Aging and Life Management (Georges Bezdikian, Mansoor Sanwarwalla, and Vik Shah)
- SC-9: Regulations, Codes and Standards (Nick Gupta and Matt Feldman)

In addition, in 2011 Garry Young will organize the session for OAC student papers. For the 2011 PVP Conference, OAC expects to develop 20 sessions. OAC welcomes your attendance and participation at the 2011 PVP Conference in Baltimore, MD.

I have some very sad news to report which came to me during the writing of this column. Mansoor Sanwarwalla passed away unexpectedly only a few days ago. Mansoor was a friend and colleague of mine for a number of years. He had a passion for his profession, the ASME, and in particular the PVP Division. Mansoor had a tremendous impact on the OAC over the years, but most of all his friendship towards many will be greatly missed.

*Steve Hensel  
Chair, Operations, Applications and Components*

## Technical Committee: High Pressure Technology



*Jan G. M. Keltjens*

The High Pressure Technology Committee focuses on design, research, development and operation of high pressure equipment and systems. The end user experience is a key topic during the PVP conferences and it provides important feedback for the development of ASME high pressure codes and standards. Furthermore, academia, exploring the fundamental aspects of High Pressure Technology is traditionally well represented.

The High Pressure Technology Committee held its annual meeting during the PVP-2010 conference in Bellevue Washington. It is an international committee with representatives from over 10 countries and four continents.

During PVP 2010 the committee organized 5 technical sessions that covered various aspects of high pressure technology. All sessions were generally well attended. Our special thanks goes out to Darren Stang, the Technical Program Representative, and the individual session developers.

In 2011 the conference will be in Baltimore. Ed Rodriguez and Karl Simpson, the TPR's, did a great job in developing

*(Continued on page 8)*

## Technical Committee: High Pressure Technology

(Continued from page 7)

and planning four sessions on various areas of High Pressure technology such as Design and Analysis, Impulsively Loaded Vessels and a session on hyper compressors for Polyethylene production. It promises to be a very interesting conference.

Anyone interested in high pressure technology activities is invited to join us and participate at the next committee meeting at PVP-2011 in Baltimore, Maryland.

*Jan Keltjens*

*Chair, High Pressure Technology*

## Technical Committee: Codes and Standards



*Kunio Hasegawa*

**T**he Codes and Standards (C&S) Committee provides a forum to promote developments and exchange of technical information on contemporary topics related to the C&S for pressure vessels and

pipng. There are a multitude of consensus codes, standards, rules and guidelines on design, construction and fitness-for-service for vessels and piping in the various industrial fields in many countries. Although the evaluation methodologies are different, there is a need to have harmonization to obtain consistent results among these different codes. The C&S Committee has supported and offered opportunities to exchange information of mutual interests at PVP Conference over the years.

Majority of the papers in C&S are related to structural integrity methods, material information, repair and replacement, new criteria for code improvement, and technical basis documents for proposals of code changes for the ASME Boiler and Pressure Vessel Codes, API 579, French Codes RCC-M and RSE-M, German Guideline FKM, British Standard BS 7910, Chinese Code GB/T, Japanese Code JSME, European Flaw Assessment FITNET, etc. The C&S Committee has become truly international in nature bringing together people from many countries exchanging technology and sharing codes and standards developments in their part of the world.

The 2010 PVP Conference in Bellevue, Washington, was a very successful one. The C&S Committee sponsored 21 major technical topics.

A total of 124 technical papers were presented in 37 sessions at the conference. Some of these sessions were jointly sponsored by the M&F Committee. The PVP 2010 C&S Committee meeting was attended by 38 members and visitors. During the meeting, Honors and Awards Chair Dennis William awarded Certificate of Recognitions to Kunio Hasegawa and Young Hwan Choi for 2010 TPR (Technical Program Representative) work, Certificate of Recognitions to Katsumasa Miyazaki, Jinyang Zheng, Stanislav Vejvoda, Yogeshwar Hari, and Jeremy Janelle for their excellent contributions. A Certificate of Appreciation was awarded to Gora Chakrabarti for his four-year term contribution as a chair of C&S, and Arturs Kalnins received the PVP2009 Award for the outstanding technical paper which was presented at the C&S session. The C&S Committee has grown steadily through the years, and we are proud to have a large international membership.

This year's conference PVP2011 will be held in Baltimore, Maryland, USA. Everyone involved in the progress is working very hard to make this a very successful conference. At the time of preparing this newsletter, C&S has received manuscripts, with approximately 131 papers with 38 sessions, the highest ever. The C&S Committee sessions for this year's conference are being organized and led by TPR, Boston Bezensek from UK. He is being assisted by Co-TPR, Doug Scarth from Canada. Coordinators for student paper competition for C&S are served by Koji Takahashi from Japan and Reza Adibiasl from Canada. We have high expectation for the upcoming conference in Baltimore. Baltimore is close to US NRC (Nuclear Regulatory Commission). Very special topics on ASME/NRC Symposium are being planned by David Rudland and Gary Stevens of NRC staff. The symposium will consist of circa 10 sessions of panel and technical presentations on regulatory issues within ASME Sections III and XI activities, weld overlay and leak before break. We believe it will be a very successful conference.

For more information, please contact Kunio Hasegawa at [hasegawa-kunio@jnes.go.jp](mailto:hasegawa-kunio@jnes.go.jp).

*Kunio Hasegawa*

*Chair, Codes and Standards*

## The ASME Digital Library

[www.asmedl.org](http://www.asmedl.org)

ASME is the premier professional membership organization for more than 127,000 mechanical engineers and associated members worldwide. ASME also conducts one of the world's largest technical publishing operations in the world, offering thousands of titles including some of the profession's most prestigious journals, conference proceedings, and ASME Press books.

The ASME Digital Library, is ASME's primary repository of current and archival literature featuring:

ASME's Transaction Journals from 1970 to the present

ASME's Conference Proceedings from 2002 to the present

ASME Press eBooks selected from 1998 to the present. Initially, the eBook package will include about 50 of our newest volumes, published from 2006 through mid-2009, with up to 100 titles by 2011.

As the ASME Digital Library continues to expand, it ultimately will include the complete archive of ASME's Transactions Journals dating back to 1880. To view what is currently available, use the tabs at the top of the page to navigate to the publication of your choice, then click on the "Available Volume List."

### Subscriber Information

For information describing the available subscription packages click on the [promotional flier \(PDF\)](#) in the digital library website.

## Technical Committee: Computer Technology



*Hakim A. Bouzid*

**T**he Computer Technology and Bolted Joints Technical Committee is a group of dedicated scientists, engineers and end-users that promote interest and advancement of computer capabilities in the design and fabrication of pressure vessels and piping components with a special focus on bolted joints. CTBJ also advocates

(Continued on page 9)

## Technical Committee: Computer Technology

(Continued from page 8)

proper documentation, verification and validation of computational tools, standard designs and qualification test procedures of pressurized equipments.

With the ever-increasing demand of hardware and software capabilities and the tighter regulations on fugitive emissions, emphasis is put towards a variety technical challenges ranging from full scale manufacturing simulations and structural interaction modeling all the way down to nanoscale modeling and testing. The CTBJ Committee provides a forum to examine emerging developments affecting the design and analysis of pressurized joints, engineering process capabilities, hardware development and usage, software tools, and computational algorithms. Discussions and papers addressing the latest developments in linear and nonlinear mechanics, material behavior modeling, modeling techniques, manufacturing process simulations, fasteners, bolted flange gasketed joints, stuffing box technologies and testing are followed with great interest.

During the 2010 PVP conference in Seattle, in addition to sponsoring the Computer Software forum, the CTBJ Committee presented 11 technical sessions with a total of 46 papers. Eight of the technical sessions were related to the tightness, analysis and testing of pressurized joints and the three others addressed computer technology material. The CTBJ Technical Committee is extremely proud to have one of its members, Prof. Toshiyuki Sawa, receive the prestigious S.Y. Zamrik PVP Medal. It is also worth noting that the winner of the Student Paper Competition in the PhD category was a CTBJ paper presented by Do Tan Dan from Ecole de Technologie Superieure. The committee wishes to thank Technical Program Representative John Martin of Bechtel Inc. for his work in overseeing the development of these CTBJ sessions.

For PVP-2011 in Baltimore, the CTBJ committee will again provide sessions addressing all facets and advances within

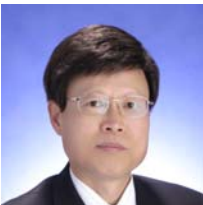
the computer technology and bolted joint fields. In support of this year conference, Technical Program Representative Jerry Waterland from Virginia Sealing Products has championed this year's technical sessions addressing a wide range of computer technology and bolted joints related topics. In addition, the CTBJ Technical Committee will also be teaming with other ASME committees in an effort to bring to the forefront the coupling of computational tools with design and analysis techniques for applications relating to the pressure vessel and piping industry.

The next full CTBJ Technical Committee meeting will be held in conjunction with the 2011 PVP Conference in Baltimore. The CTBJ Technical Committee is open to individuals or groups who are interested in the technical development and R&D activities related to computational tools and bolted joints. For further information about the committee or suggestions and/or questions regarding committee issues, please contact CTBJ Chair Hakim Bouzid at 514-396-8563 or via email at [hakim.bouzid@etsmtl.ca](mailto:hakim.bouzid@etsmtl.ca).

*Hakim A. Bouzid*

*Chair, Computer Technology and Bolted Joints*

## Technical Committee: Fluid Structure Interaction



*Jong Chull Jo*

The Fluid-Structure Interaction (FSI) Technical Committee promotes the study and application of the dynamics of fluid-structure interactions including flow-induced vibration & noise, shock & wave propagation, fluid-solid/media-structure interactions, and fluid dynamics as they relate to the design and operation of pressure vessels, piping systems and components. The committee provides fundamental knowledge of FSI dynamics as well as practical technologies with their applica-

tion guidelines for design, evaluation, operation and maintenance of pressure vessels and piping systems. Emphasis is placed on phenomena/effects identification, analytical/numerical/experimental modeling, analysis/prediction methods, and analysis results /experimental data of various FSI mechanisms in pressure vessels and piping systems.

At the 2010 ASME PVP/K-PVP Conference held in Bellevue, Washington, USA, the committee sponsored 4 symposia with 12 sessions including 43 papers and 3 presentations. The symposium titles were "Fluid Structure Interaction and Sloshing," "Thermal-Hydraulic Phenomena and Interactions with Vessels, Piping, and Components," "14th International Symposium on Emerging Technologies for Fluids, Structures and Fluid-Structure Interactions," and "Structures under Extreme Loading Conditions." The committee also sponsored three student paper competition sessions in the FSI area. For PVP 2010, the Task Group 3 of the FSI committee "Fluid Dynamics/ Transient Thermal Hydraulics" organized a special FSI session titled "Industry Experiences with Water Hammer," which was comprised of three presentations by three highly-experienced specialists in the area. The session was successful in attracting many attendees, and an intensive discussion followed. Njuki Mureithi served as FSI Technical Program Representative (TPR) for the conference and received the Certificate of Recognition for his hard work. Samir Ziada and Jong Chull Jo have been promoted to ASME Fellows.

The ASME PVPD FSI Technical Committee meeting is held during the annual PVP Conference. At the 2010 FSI committee meeting, a total of 28 members and guests attended. As agreed at the meeting, 6 symposia with about 80 papers are being organized for PVP 2011, through the sponsorship of the FSI committee. George Papadakis serves as FSI TPR for the 2011 PVP Conference. For PVP 2012 and PVP 2013, Hirofumi Iyama and Arris Tijsseling will respectively serve as FSI TPR. Young W. Kwon, past FSI Chair, served as the General Chair for the 2010 PVP and presently serves as the PVP Division Chair for the term 2010-2011. George Papadakis was newly appointed as FSI Representative in the International Coordina-

(Continued on page 10)

## Technical Committee: Fluid Structure Interaction

(Continued from page 9)

tion Committee, and Shigeru Itoh was appointed to serve as FSI Representative in the Honors and Awards Committee for the three-year term 2011-2014. Samir Ziada was re-appointed as an Associate Editor of the Journal of Pressure Vessel Technology for the three-year term 2010-2013.

The FSI committee is continuously seeking new members worldwide. Those who would like to join the FSI committee as official members are urged to send an email with a copy of brief resume to FSI Chair Jong Chull Jo at [jcjo@kins.re.kr](mailto:jcjo@kins.re.kr). In addition, anyone who is interested in the committee's activities is welcome to attend the FSI committee meeting to be held during the 2011 PVP Conference.

*Jong Chull JO*

*Chair, Fluid Structure Interaction*

## Technical Committee: Seismic Engineering



*Vernon Matzen*

The Seismic Engineering Technical Committee (SETC) is focused on the promotion and enhancement of the study and application of seismic engineering as

it relates to the design and operation of pressure vessels, piping systems and other structural systems and components. Encouraging participation in the annual ASME Pressure Vessels and Piping conference has proven to be an effective way to achieve the SETC's chartered goal. The committee organizes sessions covering emerging research and applications in a broad range of topics including seismic design, modeling and analysis; seismic response qualification; damping and energy dissipation; seismic isolation and vibration control; seismic testing and verification; high level response of piping and vessels; seismic codes, standards and criteria; seismic damping examination and strength reinforcement; fluid and solid interaction; seismic analysis and design of tanks and pressure vessels; seismic analysis and design of industrial piping; and structural reliability and risk assessment.

In the 2010 PVP Conference, the SETC had 11 sessions with 36 papers, as well as Gerry Slagis' popular Forum on Seismic Design of Piping Systems for the Year 2010. Cheryl O'Brien was the Technical Program Representative (TPR), and she continued in this position for the 2011 conference, also.

In the 2011 PVP Conference in Baltimore, the SETC will have 9 sessions ranging from linear and nonlinear structural dynamics, new reactor licensing activities, and seismic isolation systems with 35 papers, as well as a Forum on Appropriate Criteria and Methods for Seismic Analysis

and Design of Piping Systems, once again presented by Gerry Slagis..

The SETC officers are: Chair, Vernon Matzen; Vice Chair, Tomoyo Taniguchi; and Secretary, Tom Clark. Seismic Engineering Committee members Tomoyo Taniguchi and Spyros Karamanos are Associate Editors on the ASME Journal of Pressure Vessel Technology (JPVT). Tomoyo Taniguchi is AE for Seismic Engineering and Spyros Karamanos is AE at Large. Tomoyo Taniguchi will serve as the TPR for 2012.

Seismic engineering is a crosscutting discipline that interacts with many other technical specialties. Since seismic issues are globally important, our membership is a truly international group that welcomes new members. This is an opportunity to meet and interact with engineers and researchers from around the world who are working in the various topics associated with Seismic Engineering.

I encourage all who may be interested in seismic issues and desire more information to contact me at 919-515-7736 or via email at [matzen@ncsu.edu](mailto:matzen@ncsu.edu).

*Vernon C. Matzen,*

*Chair, Seismic Engineering*



# **PVP 2012 Toronto**

*Sheraton Centre  
Toronto Hotel*

*July 15–19, 2012*

## **ASME Pressure Vessels & Piping Conference**

### ***New Horizons in Global Pressure Vessel and Piping Technology***

Join us in beautiful Toronto, Ontario, Canada for the 2012 ASME Pressure Vessels and Piping Conference! The PVP conferences are known to be *the* outstanding international technical forum for participants to further their knowledge-base through exposure to diverse engineering topics and dissemination of cutting-edge technology. Opportunities abound to exchange opinions and ideas both from industry and academia in the many topical areas related to Pressure Vessel and Piping technologies for the Power and Process Industries. Participants from approximately 40 countries in Europe, Africa, the Middle East, Asia, the Americas and the Oceania islands assure an interesting mixture of topics, ideas, and viewpoints.

The ASME Pressure Vessels & Piping Division is the primary sponsor of the PVP-2012 Conference, with additional participation by the ASME NDE Division. More than 190 paper and panel sessions are planned, as well as workshops, tutorials, NDE and Software Demonstration Forums, and our traditional Student Paper Competition and Symposium.

**GENERAL TOPICS:** (1) Codes & Standards; (2) Computer Technology & Bolted Joints; (3) Design & Analysis; (4) Fluid-Structure Interaction; (5) High Pressure Technology; (6) Materials & Fabrication; (7) Operations, Applications & Components; (8) Seismic Engineering; (9) Non-Destructive Examination; and (10) our Student Paper Competition & Symposium.

**SCHEDULE:** Abstracts are due by **November 11, 2011**. Authors will be notified of abstract acceptance by **December 5, 2011**. Draft papers are due by **February 13, 2012**. Paper peer review comments will be returned by **March 12, 2012**. Final reviewed papers in the standard ASME format for publication and the Copyright Agreement Form for each paper must be received by **April 9, 2012**. All presented technical papers will be published as referencable documents available post-conference via hardcopy or electronic media.

**INFORMATION:** Updated 2012 PVP Conference information and paper publication instructions will be available after July 15, 2011 at the conference web site: <http://www.asmeconferences.org/PVP2012/>.

#### ***PVP Conference Chair***

Michael E. Nitzel  
M. E. Nitzel Engineering Services  
12839 Lakecrest Drive  
Nampa, ID 83686, USA  
Phone: 208-465-6434  
E-mail: gmnitzel@msn.com

#### ***PVP Technical Program Chair***

Dennis K. Williams  
NuScale Power, Inc.  
201 NW Third Street  
Corvallis, OR 97330, USA  
Phone/Fax: 541-207-3931/541-207-3928  
Email: dwilliams@nuscalepower.com

#### ***Sponsorship Chair***

Carl E. Jaske  
Det Norske Veritas (USA), Inc.  
5777 Frantz Road  
Dublin, OH 43017-1386, USA  
Phone: 614-761-6916/Fax: 614-761-1633  
E-mail: Carl.Jaske@dnv.com



# 2010–2011 Pressure Vessels and Piping Division Officers

## EXECUTIVE COMMITTEE

### Chair

Young W. Kwon  
Mechanical & Aeronautical Engineering  
Naval Postgraduate School  
700 Dyer Road  
Monterey, CA 93943  
Ph/Fax: 831-656-3468/2238  
E-mail: ywkwon@nps.edu

### Vice Chair

Ronald S. Hafner  
Lawrence Livermore National Laboratory  
7000 East Avenue, Mail Stop L-223  
Livermore, CA 94550-9234  
Ph/Fax: 925-423-1449/925-44-7872  
e-mail: hafner1@llnl.gov

### Honors and Awards

Dennis Williams  
Sharoden Engineering Consultants  
1153 Willow Oaks Trail  
PO Box 1336  
Matthews, NC 28106-1336  
Phone: 704-591-3995  
E-mail: DennisKW@sharoden.com

### Communications

Les Antalffy  
Fluor Enterprises, Inc.  
One Fluor Daniel Drive  
Sugar Land, TX 77478  
Ph/Fax: 281-263-3056/8444/9755  
E-mail: les.p.antalffy@fluor.com

### Programs

Daniel T. Peters  
Structural Integrity Associates, Inc.  
3975 Kenneth Drive  
Rootstown, OH 44272  
Ph/Fax: 330-899-9753/9755  
E-mail: dpeters@structint.com

### Professional Development

Michael E. Nitzel  
M.E. Nitzel Engineering Services  
12839 Lakecrest Dr.  
Nampa, ID 83686  
Ph: 208-465-6434  
E-mail: gmnitzel@msn.com

## SENATE of PAST PVP CHAIRS

### President

Artin A. Dermenjian  
Sargent & Lundy, LLC  
55 East Monroe Street  
Chicago, IL 60603-5780  
Ph/Fax: 312-269-3892/2028  
E-mail: artin.a.dermenjian@sargentlundy.com

## J. of PRESSURE VESSEL TECHNOLOGY

### Editor

G. E. O. (Otto) Widera  
College of Engineering  
Marquette University  
279 Haggerty Hall, P. O. Box 1881  
1515 W. Wisconsin Ave. (53233)

Milwaukee, WI 53201-1881  
Ph/Fax: 414-288-4427/1647  
E-mail: jpv@mu.edu

## ADMINISTRATIVE COMMITTEES

### Membership Chair

Michiel P.H. Brongers  
CC Technologies, Inc. (A DNV Company)  
5777 Frantz Road  
Dublin, OH 43017-1386  
Ph/Fax: 614-761-1214/1633  
E-mail: michiel.brongers@dnv.com

### Publicity Chair and Newsletter Editor

Les Antalffy  
Fluor Enterprises, Inc.  
One Fluor Daniel Drive  
Sugar Land, TX 77478  
Ph/Fax: 281-263-3056/8444/9755  
E-mail: les.p.antalffy@fluor.com

### International Coordinator

Maher Y. A. Younan  
American University of Cairo  
Mechanical Engineering Department  
P.O. B. 74, New Cairo 11835  
Cairo, Egypt  
Ph: +202 2615 3062  
E-mail: myounan@aucegypt.edu

## TECHNICAL COMMITTEE CHAIRS

### Codes and Standards

Kunio Hasegawa  
Japan Nuclear Energy Safety Organization  
Tokyo Reit Toranomon Bldg.  
Toranomon 3-17-1, Minato-ku  
Tokyo, Japan 105-0001  
Ph/Fax: +81-3-4511-1751/1897  
E-mail: hasegawa-kunio@jnes.go.jp

### Computer Technology

Hakim Bouzid  
Mechanical Engineering Department  
Ecole de Technologie Superieure  
1100 Notre-Dame Quest  
Montreal, Quebec H3C 1K3  
Ph/Fax: 514-396-8563/8530  
E-mail: hakim.bouzid@etsmtl.ca

### Design and Analysis

William T. Koves  
Pi Engineering Software, Inc.  
952 North Dexter Lane  
Hoffman Estates, IL 60169  
Ph/Fax: 847-391-2952 / 847-885-0242  
E-mail: bill.koves@sbcglobal.net

### Fluid-Structure Interaction

Jong Chull Jo  
Korea Institute of Nuclear Safety  
19 Kusung-dong, Yusung-gu  
Daejeon, 305-338, Korea  
Ph/Fax: +82-42-868-0231/+82-42-861-9945  
E-mail: jcho@kns.re.kr

### High-Pressure Technology

Jan G. M. Keltjens  
Sabic Europe  
Koolwaterstofstraat 1  
P.O. Box 475  
6160 Geleen, The Netherlands  
Ph/Fax: +31 (0)46 476 1363 / +31 (0)6 223 95 285  
E-mail: jan.keltjens@SABIC-europe.com

### Materials and Fabrication

Doug Scarth  
Kinetrics Inc.  
800 Kipling Ave  
Toronto, Ontario Canada  
Ph: 416-207-6000 ext 6383  
E-mail: doug.scarth@kinetrics.com

### Operations, Applications, and Components

Stephen J. Hensel  
Savannah River National Laboratory  
Building 773-42A  
Aiken, SC 29808  
Ph/Fax: 803-725-8440/8829  
E-mail: steve.hensel@srnl.doe.gov

### Seismic Engineering

Vernon Matzen  
Department of Civil Engineering  
North Carolina State University  
418 Mann Hall  
Campus Box 7908  
Raleigh, NC 27695-7908  
Ph/Fax: (919) 515-7736/5301  
E-mail: matzen@ncsu.edu

## ASME STAFF

Vince Dilworth  
Senior Program Manager  
Global, Technical & Affinity Communities  
ASME International  
30 Rainbow Bridge Center  
San Ramon, CA 94582-4534  
Ph/Fax: 925-244-1360/1359  
E-mail: dilworth@asme.org

Jacinta McComie-Cates  
Administrator, Unit Support  
Knowledge & Community  
ASME International  
Three Park Avenue  
New York, NY 10016  
Ph/Fax: 212-591-7052/7671  
E-mail: mcomiej@asme.org

Melissa Torres  
Meetings Coordinator  
ASME International  
Three Park Avenue, MS 22E5  
New York, NY 10016  
Ph/Fax: 212-591-8257/7856  
E-mail: torresm@asme.org