GLOBAL Gas Turbine News

Volume 49, No. 3 • August 2009

ATLANTA, GEORGIA USA • ASME INTERNATIONAL GAS TURBINE INSTITUTE

Register Today for the 2009 ASME Gas Turbine Users Symposium

Co-located with the 38th Turbomachinery Symposium

Join us in Houston September 14-17, for the 2009 ASME Gas Turbine Users Symposium.

"The 2009 GTUS program will leverage from the success of past years with a focus for the gas turbine user, consultant and manufacturer. The forum will provide a unique opportunity to network and exchange the latest in technology and best practices with experts from across the spectrum of gas turbine design, application and operation," said David Mucz, 2009 GTUS Chair.

A new addition to GTUS 2009 will be the presentation of specially-selected, application-oriented technical papers from ASME Turbo Expo as well as a three-part tutorial on "Introduction to Gas Turbines," which will provide a comprehensive overview in the function, performance characteristics, and in particular, the typical operational issues for industrial gas turbines. Other topics this year include fuels, advanced inspection technologies, combustion and emissions, and repairs.

"With the current challenges we all face in this tough economy, this GTUS forum represents a practical and interactive opportunity to share your experiences and challenges with your fellow gas turbine users, manufacturers and consultants, and I am sure will provide years of ongoing value," said Mucz.

IGTI is also offering two pre-symposium workshops on Sept. 14, 2009 at the George R. Brown Convention Center:

Combustion Dynamics in Gas Turbine Power Plants
8:30 a.m. - 5:00 p.m.
Instructor: Tim Lieuwen, Associate Professor, Georgia Institute of Technology

Basic Gas Turbine Metallurgy and Repair Technology
8:30 a.m. - 5:00 p.m
Instructors: Lloyd Cooke, Liburdi Turbine Services; Warren Miglietti, Power Systems Mfg., LLC; Doug Nagy, Liburdi Turbine Services

Visit *www.asmeconferences.org/gtus09* for more details and to register. **Advance Registration Deadline is August 28, 2009**. **ASME members qualify for a reduced registration fee.** GTUS attendees have the option of upgrading their conference registration to include the Turbomachinery Symposium technical sessions for only $300.00 more.

GTUS GAS TURBINE USERS SYMPOSIUM
Presented by the International Gas Turbine Institute

GTUS 2009 For All Turbomachinery Users A Two for One Bargain!

GTUS Registration Includes:

- Admission to all ASME GTUS sessions
- Free access to the 38th Turbomachinery Symposium (T38) exhibit floor
- Complimentary T38 lunches and evening meals
- GTUS only networking dinner
- Invitation to the T38 welcome address
- GTUS proceedings CD
- With upgrade fee, delegates also have admission to all T38 sessions

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VIEW FROM THE CHAIR

Knox T. Millsaps, Chairman, IGTI Board of Directors

I write to welcome the members and the loyal following of the International Gas Turbine Institute (IGTI) to a new year of events that will culminate in Turbo Expo 2010 in Glasgow, Scotland, and to provide you information on the state of IGTI and what you can do to take advantage of the wide range of opportunities and services we offer and provide information on how you can contribute. IGTI is a member- and volunteer-driven organization, and as with all such endeavors, you can only get out of it what you put into it. IGTI is the leading organization in the world in developing and disseminating technical information in gas turbines, turbomachinery, and related equipment, and with your help we will further strengthen our position.

First, however, before looking forward, I will thank some people who have contributed greatly to IGTI this year. First to my fellow board members (Dr. Reza Abhari, Dr. Dilip Ballal, Dr. Ron Bunker, Dr. Klaus Brun, Dr. Ken Hall, Dr. Sigmar Wittig, Dr. Thomas Sattelmayer, Dr. Karen Thole, and Mr. Pat Campbell) who have worked very hard over the last year to provide leadership. Our Managing Director, Mr. Mike Ireland, has done a great job in keeping us going through these challenging economic times. The IGTI staff did a fantastic job leading up to, and in Orlando to make Turbo Expo 2009 a wonderful experience for all of us. A special thanks to the IGTI staff, Stephanie Sears, Kristin Barranger, Smita Solanki, Rebecca Watrous, Martha Quinlin, Shirley Barton, and Judy Osborn. Judy, the Manager of Conferences, always takes the lead and makes great things happen. Thank you Judy! Finally, thank you all, the technical committee chairs, and vice chairs, the vanguard chairs and session organizers, and most of all to the authors, who provided conference attendees nearly a thousand interesting papers and presentations on a wide range of gas turbine and turbomachinery related topics. Turbo Expo keeps expanding and improving in quality and you, the technical experts, who share your knowledge with our community, are the driving factor. Thank you!

I am looking forward to a great year leading up to Turbo Expo 2010 in Glasgow, Scotland. For Turbo Expo 2011 we will be back in North America in the Canadian city of Vancouver, British Columbia. Along with our flagship Turbo Expo event, IGTI will continue to offer other opportunities, including other specialty conferences, Webinars on pertinent topics, and short courses. See the **Calendar of Events** for details. Again IGTI will hold our Gas Turbines Users Symposium (GTUS) in conjunction with the Texas A&M Turbomachinery Symposium, September 14-17, 2009 in Houston, Texas. If you or you company would like to provide a Webinar please contact the IGTI Staff.

IGTI has two ASME Transaction Journals associated with us, the *Journal of Turbomachinery* (Dr. Dave Wisler, Editor) and the *Journal of Engineering for Gas Turbines and Power* (Dr. Dilip Ballal, Editor). These Journals are primarily fed papers through the normal Turbo Expo technical review processes.

One of IGTI's real strengths is our diversity, and we are diverse in so many ways, including having both a "scientific" emphasis as well as committees that focus on specific applications of gas turbines to aircraft, industrial, electric power generation, and marine, etc. We are diverse in our membership. Our membership comes from academic institutions, industry (both OEMs and suppliers), and government. IGTI has been expanding in the geographic diversity of our membership. With the increasing number of countries that produce and conduct research in gas turbines, our membership has grown to reflect this trend. We are truly an International organization, with membership from more than 50 countries. This is also reflected in the composition of our technical committees and Board of Directors. IGTI is moving into new technical areas in related turbomachines, such as steam turbines and wind turbines, and we are increasingly taking a leadership role in combustion and alternative fuels, energy, greenhouse emissions and environmental issues.

One of my priorities this year as Chair is to improve the service we provide to our members and to reach out to the industry. At IGTI, we are continually looking to the future and how to better serve our constituents. If you have any concerns or ideas please feel free to contact me and let me know how IGTI can better help you and your organization.

Thank you for participating in IGTI, and I look forward to working with you over the next year to maintain the preeminent position we have as the organization that provides the best technical information and educational products for the gas turbine industry. ✲

CALENDAR OF EVENTS

SEPTEMBER 14, 2009

Combustion Dynamics in Gas Turbine Power Plants Workshop
George R. Brown Convention Center
Houston, TX USA

This course begins with an overview of development and field experience with combustion instabilities, and will describe case studies from several DLN combustors development efforts. It then provides background on what causes dynamics and what parameters (e.g., fuel composition and temperature) influence it. Next, it discusses strategies for treating dynamics problems by combustor tuning. Finally, it discusses dynamics monitoring approaches, and various issues associated with using dynamics monitoring for machine protection and health monitoring. Register now at *http://www.asmeconferences.org/GTUS09/ConfRegistration.cfm*

SEPTEMBER 14, 2009

Basic Gas Turbine Metallurgy and Repair Technology Workshop
George R. Brown Convention Center
Houston, TX USA

This workshop will explain super-alloy materials, component damage experienced from service exposure, techniques used to analyze the remaining life of components removed from service, protective coatings, component repair technologies, and quality assurance of repairs. The workshop includes many case study examples and the last section is devoted to a workshop where attendees develop component repair solutions. Participants may submit questions in advance regarding repair issues faced in their jobs. Register now at *http://www.asmeconferences.org/GTUS09/ConfRegistration.cfm*

SEPTEMBER 14-17, 2009

Gas Turbine Users Symposium (GTUS) Co-located with 38th Turbomachinery Symposium
George R. Brown Convention Center
Houston, TX USA

A comprehensive cluster of panel presentations, tutorials, case studies, and group discussions focused on gas turbine operating challenges, designed to offer educational and networking opportunities for those who operate, maintain, and make purchasing decisions about gas turbines.

FEBRUARY 22-23, 2010

ASME Training Week – Introduction to Gas Turbines and Centrifugal Compressors
Southwest Research Institute • San Antonio, TX USA

Industrial Gas Turbine Technology Award... *Call for Nominations*

Nominations are being solicited for the Industrial Gas Turbine Technology Award for presentation at ASME Turbo Expo 2010, June 14-18, 2010, in Glasgow, Scotland.

The award is for sustained personal creative scientific or technological contributions unique to electric power or mechanical drive industrial gas turbine technology. Eligible areas of accomplishment are gas turbine design, application, operations/maintenance, and research/development/deployment, performed in an industrial, academic or research laboratory environment in one or more of the following fields:

- Combustion, Fuels, & Emissions Abatement
- Manufacturing, Materials, & Metallurgy
- Diagnostics
- Electric Power Plant Integration
- Fluid Dynamics & Thermal Sciences
- Operation, Maintenance, & Life Cycle Cost
- Controls
- Structures & Dynamics
- Thermodynamic Cycles
- Turbomachinery

The award will include the opportunity to deliver a lecture or present an invited technical paper on the work for which the award is being bestowed, at the IGTI Technical Congress in June 2010.

The recipient of the award will desirably, but not necessarily, be a member of The American Society of Mechanical Engineers. *The award will be made to a single individual.*

Nominating Letters should be sent by October 16, 2009 to:

Richard S. Tuthill, Chairman
Industrial Gas Turbine Technology Award Committee
400 Main Street, MS 161-20 • East Hartford, CT 06108

Nominating letters should contain all information on the nominee's relevant qualifications.

A minimum of two supporting letters from individuals other than the nominator must accompany the nominating letter. Supporting letters should reflect peer recognition of the nominee's breadth of experience with various aspects of industrial gas turbine technology. ✲

Aircraft Engine Technology Award... *Call for Nominations*

Nominations are being solicited for the Aircraft Engine Technology Award for presentation at ASME Turbo Expo 2010, June 14-18, 2010, in Glasgow, Scotland.

The award is for sustained personal creative contributions to aircraft gas turbine engine technology in the areas of aircraft engine design and/or research and development performed in an industrial, academic or research laboratory environment in one of the following fields:

- Aircraft Engine Propulsion
- Airframe-Propulsion Integration
- Combustion & Fuels
- Controls
- Diagnostics
- Heat Transfer
- Manufacturing Materials & Metallurgy
- Structures & Dynamics
- Turbomachinery

The award will include the opportunity to deliver a lecture or present an invited technical paper on the work for which the award is being bestowed at the Turbo Expo Technical Congress in June 2010.

The recipient of the award will desirably, but not necessarily, be a member of The American Society of Mechanical Engineers. *The award will be made to a single individual.*

Nominating Letters should be sent by October 16, 2009 to:

Ruben Del Rosario
Chair, Aircraft Engine Technology Award Committee
National Aeronautics and Space Administration
21000 Brookpark Road, Mail Stop 6-8
Cleveland, OH 44135, USA
Phone: (216) 433-5679 • Email: Ruben.DelRosario@nasa.gov

Nominating letters should contain all information on the nominee's relevant qualifications.

A minimum of two supporting letters from individuals other than the nominator must accompany the nominating letter. Supporting letters should reflect peer recognition of the nominee's breadth of experience with various aspects of aircraft engine technology. ✲

FEBRUARY 24, 2010
ASME Training Week – Root Cause Failure Analysis of Gas Turbines
Southwest Research Institute • San Antonio, TX USA

FEBRUARY 25, 2010
ASME Training Week – Compressor Performance Testing and Dynamics
Southwest Research Institute • San Antonio, TX USA

APRIL 4-9, 2010
13th International Symposium on Transport Phenomena and Dynamics of Rotating Machinery (ISROMAC-13)
Sheraton Moana Surfrider Hotel
Honolulu, Hawaii USA
This conference deals with all aspects of transport phenomena and dynamics in rotating machinery, including research, design, manufacturing, and operation. It provides a forum for presentation of new and innovative technologies as well as free exchange of ideas among the world leaders in rotating machinery.

APRIL 12-15, 2010
51st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference
Rosen Centre Hotel
Orlando, FL USA
This annual conference provides a unique forum dedicated to the latest developments in the collective disciplines of structures, structural dynamics, materials, design engineering, and survivability.

JUNE 14-18, 2010
ASME Turbo Expo 2010
Scottish Exhibition & Convention Centre
Glasgow, Scotland
IGTI's flagship event comprises a major gas turbine conference and exhibition.

JULY 25-28, 2010
8th Annual International Energy Conversion Engineering Conference & 46th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit
Nashville, TN USA
The objective for the Joint Propulsion Conference is to identify and highlight the propulsion systems, components, and technologies required to enable the next generation of aerospace vehicles. The IECEC conference provides a forum to present and discuss engineering aspects of energy conversion technology, advanced energy and power systems, devices for terrestrial energy systems and aerospace applications, and the policy, programs, and environmental impact associated with the development and utilization of this technology.

AUGUST 7-13, 2010
14th Int'l Heat Transfer Conference (IHTC)
Omni Shoreham Hotel
Washington D.C., USA

JUNE 6-10, 2011
ASME Turbo Expo 2011
Vancouver Convention & Exhibition Centre
Vancouver, British Columbia, Canada
IGTI's flagship event comprises a major gas turbine conference and exhibition.

TURBO EXPO
Gas Turbine Technical Congress & Exposition
Presented by the International Gas Turbine Institute

Turbo Expo Brings Dynamic Week of Technology, Networking and Research to Orlando

Thank You Turbo Expo 2009 Sponsors

GE
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Solar Turbines
Sulzer Metco US Inc.
Flowmaster
Southwest Research Institute

If you were not at ASME Turbo Expo 2009 in Orlando, you may have missed one of the most dynamic and professionally rewarding weeks of technology exchange and networking in the gas turbine community!

Led by Executive Conference Chair Barry Nicholls of Siemens, the opening session featured a stellar keynote focused on *"Meeting Complex Global Challenges for Gas Turbine Professionals"*, followed by the annual awards program of prestigious ASME and IGTI gas turbine awards.

The Technical Congress offered five days of technical sessions, including the 2009 Scholar Lecture, "Preparing for the Future: Reducing Gas Turbine Environmental Impact" by Dr. Nicholas Cumpsty and special honorary lectures by the Industrial Gas Turbine and Aircraft Engine Technology award winners, Dr. L. Berkley Davis and Dr. Aspi Wadia, both from GE.

During the three-day Exposition, delegates met with representatives of premier companies supplying quality gas turbine products and services. Special recognition went to Siemens and Anecom as exhibition visitors voted their displays the best.

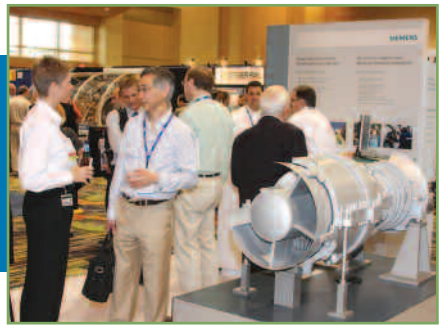
A student mixer was added to the variety of abundant networking opportunities throughout the week. Now in its 5th year, the reception and dinner for women working in the gas turbine area featured a talk from Carolyn Krebs, Manager of Engineering Configuration Control and Data Management, at Solar Turbines, who sponsored the event.

Suffice it to say that, if gas turbines are part of your professional life, you cannot afford to miss the annual ASME Turbo Expo! To plan for 2010, see page 7 of this issue and keep informed throughout the year by visiting Turbo Expo online at www.turboexpo.org. ✻

The Keynote Panel: John Elnitsky, Sunao Aoki, Lou Cerone, Hans-Juergen Kiesow, led by Executive Conference Chair, Barry Nicholls

Carolyn Krebs speaking at Women's Dinner.

Best Booth - Small Display - Anecom


Best Booth - Large Display - Siemens

The student mixer was a great opportunity for young engineers to network with one another.

A special session for Dr. Leroy H. Smith was held during Turbo Expo 2009. The session was organized by Dr. Chunill Hah of NASA Glenn in honor of Roy Smith's 50+ years contributions to gas turbine aerodynamic design. There was also an invitation-only dinner in Roy's honor.

The people in the picture (L to R) are:

Dr. Chunill Hah, NASA Glenn
Dr. Aspi Wadia, GE Aviation
Dr. Mike Benzakein, Ohio State University (formerly of GE Aviation)
Dr. Leroy H. Smith (retired GE Aviation)
Dr. Curtis Koch (retired GE Aviation)
Dr. Edward Greitzer (MIT)
Dr. Nick Cumpsty (retired Cambridge/Rolls-Royce)

IGTI Honors Individuals for Achievements in the Gas Turbine Industry during Turbo Expo 2009

Each year during Turbo Expo, IGTI hosts an awards program to honor individuals who have made significant contributions to the gas turbine industry. This year the awards program was held in conjunction with the grand opening keynote on Monday, June 8.

DR. MICHAEL DUNN received the 2009 R. Tom Sawyer Award, which is given to an individual who has made important contributions to advance the purpose of the gas turbine industry and the International Gas Turbine Institute over a substantial period of time. Dunn is currently a professor at Ohio State University and Director of the OSU Gas Turbine Laboratory. He is an ASME Fellow and former associate editor of the ASME *Journal of Turbomachinery.*

The 2007 ASME Gas Turbine Award was shared by three individuals, **DR. DAVID BELL, TIMOTHY RICE** and **DR. GURNAM SINGH**, for their paper "Identification of the Stability Margin Between Safe Operation and the Onset of Blade Flutter" (GT2007-27462). Bell, Rice and Singh all work for Alstom. Bell is manager of the technical tendering department for steam turbine retrofits. Rice works on turbine validation. Singh is project manager for blading for next-generation high performance machines.

The 2007 IGTI John P. Davis Award was also shared by four individuals, **DR. N. JAYARAMAN, PAUL PREVÉY, RAVI RAVINDRANATH**, and **DR. MICHAEL SHEPARD**, for their 2007 ASME Turbo Expo technical paper, "Mitigation of Fretting Fatigue Damage in Blade and Disk Pressure Faces with Low Plasticity Burnishing" (GT2007-27424). Jayaraman is director of materials research at Lambda Technologies. Prevéy is president and director of research for Lambda Technologies. Ravindranath is the compression system team lead in the propulsion and power department at the Naval Air Warfare Center. Shepard is section chief for behavior and life prediction at the materials and manufacturing directorate of the Air Force Research Laboratory.

DR. ASPI WADIA received the IGTI Aircraft Engine Technology 2009 Award in recognition of his contributions in the area of turbomachinery aerodynamics and cooling over his distinguished 29-year career in the aircraft engine industry. He has been at the forefront of utilizing 3D computational fluid dynamic codes, making significant contributions to fan and compressor aerodynamic design and turbine and combustor liner cooling. Wadia is currently Chief Consulting Engineer – Aerodynamics at GE Aviation.

DR. L. BERKELEY DAVIS received the IGTI Industrial Gas Turbine Technology 2009 Award for outstanding contributions and industry leadership in low emissions combustion research and development for industrial gas turbine engines. Davis' career spans 37 years of increasing responsibility at General Electric, where he is currently Chief Engineer.

DR. NICHOLAS CUMPSTY received the IGTI 2009 Scholar Award and delivered the lecture "Preparing for the Future: Reducing Gas Turbine Environmental Impact". Cumpsty is a former head of the Whittle Laboratory at the University of Cambridge and a former Chief Technologist of Rolls-Royce, where he had a substantial impact on the evolution and application of technology to the product in a major aircraft engine manufacturer. He most recently led the sustainable energy group at Imperial College in the UK.

Throughout the conference IGTI also honored more than 70 authors with "Best Paper Awards" for papers presented during Turbo Expo 2008 in Berlin, Germany. Plaques were given to these individuals at their respective technical committee meetings. ✻

Pictured left to right: Dr. Reza Abhari, IGTI Board Chair, Dr. Michael Dunn, and Amos Holt, incoming ASME President

Pictured left to right: Abhari, Dr. David Bell, Timothy Rice, Dr. Gurnam Singh, and Holt.

Pictured left to right: Abhari, Paul Prevéy, and Holt. Not pictured: Dr. N. Jayaraman, Ravi Ravindranath, and Dr. Michael Shepard.

Pictured left to right: Abari, Holt, Dr. Aspi Wadia, Dr. Milt Davis, AET Award Chair

Pictured left to right: Abari, Holt, Dr. L. Berkeley Davis, Dr. Richard Tuthill, IGT Award Chair

Nick Cumpsty, left; Anthony Strazisar, IGTI Awards & Honors Chair, right

PROFESSIONAL DEVELOPMENT

Don't miss this unique opportunity for career advancement by attending one or multiple IGTI courses being offered over the next 12 months!

Pre-Conference IGTI Workshops being held in conjunction with the 2009 Gas Turbine Users Symposium (GTUS) and the Turbomachinery Laboratory's 38th Turbomachinery Symposium (TAMU)

Combustion Dynamics in Gas Turbine Power Plants Workshop

Monday, September 14, 2009 **Fee: $660**

George R. Brown Convention Center • Houston, TX

Instructor: Tim Lieuwen, Professor at Georgia Institute of Technology.

Basic Gas Turbine Metallurgy and Repair Technology Workshop

Monday, September 14, 2009 **Fee: $660**

George R. Brown Convention Center • Houston, TX

Instructors: Lloyd Cooke, Director, Operations, Liburdi Turbine Services; Warren Miglietti, Power Systems Mfg., LLC (an Alstom owned company); Doug Nagy, Industrial Component Repair Manager, Liburdi Turbine Services.

ASME International Gas Turbine Institute Training Week

February 22-25, 2010 • Southwest Research Institute • San Antonio, TX

A special thanks to SwRI for allowing IGTI to use their facilities for this training week.

Introduction to Gas Turbines and Centrifugal Compressors

Monday, February 22 & Tuesday, February 23, 2010

Instructors: Dr. Klaus Brun, SwRI & Dr. Rainer Kurz, Solar Turbines.

Fee: Member $1045 – Non-Member $1195

Root Cause Failure Analysis of Gas Turbines

Wednesday, February 24, 2010

Instructors: Harold Simmons & David Ransom with SwRI.

Fee: Member $595 – Non-Member $695

Compressor Performance Testing and Dynamics

Thursday, February 25, 2010

Instructors: Dr. Jeff Moore, David Ransom & Marybeth Nored all with SwRI.

Fee: Member $595 – Non-Member $695

New courses and Interactive Webinars will be offered in the coming months. For an up-to-date calendar of these new training events, please visit our website at: http://igti.asme.org or contact Shirley Barton at: 404-847-0072 ext. 1647 • E-mail: bartons@asme.org

IGTI Welcomes New Board Members

IGTI is pleased to announce the addition of several new Board members.

Dr. Karen A. Thole

DR. KAREN A. THOLE, head of the Department of Mechanical and Nuclear Engineering at Pennsylvania State University (PSU), has joined the IGTI Board as Incoming Member. She taught at the University of Wisconsin-Madison and Virginia Tech before becoming department head at Penn State. She also leads the Pratt & Whitney Center of Excellence at PSU.

Thole has been solely responsible for attracting funding of more than $7 million from such agencies as the U.S. DOE and U.S. Air Force, among others. She is an ASME Fellow and also serves as the Associate Editor of the *Journal of Turbomachinery.* In 2008 she received the ASME Distinguished Service Award.

Two former Board members will be taking on new roles. **DR. KENNETH HALL** will take over from Dr. Lee Langston as IGTI Treasurer. **DR. ANTHONY STRAZISAR** will take over from Dr. Dilip Ballal as ASME Vice President – IGTI.

Dr. Kenneth Hall

Dr. Anthony Strazisar

PATRICK CAMPBELL, former GTUS Advisory Committee Chair, has also joined the Board as Member-at-Large, replacing John Platt. Campbell is currently General Manager – Project Initiatives, at GE Oil & Gas in Calgary, Alberta, Canada. He was previously Manager of Engineering & Projects for Alliance Pipeline Ltd. in Calgary.

Campbell has a history of service to IGTI. He has served as a Session Chair, Session Organizer, Session Vice Chair and Moderator for ASME Turbo Expo. He has also been actively involved with the Gas Turbine Users Symposium.

Patrick Campbell

In Memoriam: Martin Hemsworth and Paul Francis Pucci

This spring, IGTI was sad to learn of the passing of two members of the gas turbine community, Martin Hemsworth and Paul Francis Pucci.

Martin Hemsworth

MARTIN HEMSWORTH was an ASME Fellow and received the ASME R. Tom Sawyer Award in 2000. The R. Tom Sawyer Award is bestowed on an individual who has made important contributions to advance the purpose of the Gas Turbine Industry and to the International Gas Turbine Institute over a substantial period of time.

Hemsworth, a lead engineer at GE Aviation, headed up the team that developed the TF39- the world's first large high-bypass engine. It was originally built to power the Air Force's C-5 Galaxy transport. The design placed a fan at the front of the engine to pull air through and around it. That innovation increased thrust and fuel efficiency, which led to the development of the CF6 family of commercial engines, which are used in many planes, including the Boeing 747.

Hemsworth was also part of a team that set up the factory to build the J47, a post-World War II fighter engine. In 1987, he retired as chief engineer of GE Aviation, but stayed on as a consultant and helped mentor GE Aviation's current chief engineer. In 1994 Hemsworth and his wife, Ann, established an endowed scholarship and fellowship fund for mechanical engineering students at his alma mater, the University of Nebraska-Lincoln.

Paul Francis Pucci

PAUL FRANCIS PUCCI served as IGTI's Board Chair from 1977-78 and was Emeritus Professor of Mechanical Engineering at the Naval Postgraduate School in Monterey. Pucci was a Naval Aviator and flight instructor during World War II, and then earned his B.S. and M.S. degrees in Mechanical Engineering at Purdue University before receiving his doctorate in Mechanical Engineering from Stanford University. He was employed by the Ford Motor Company in Dearborn, MI, and Convair in San Diego, CA, prior to beginning his career at the Naval Postgraduate School in August 1956.

Paul maintained continuous research and development projects with the Navy for over 30 years and received the Adm. J. Schieffelin Excellence in Teaching Award in 1971. A life Fellow of ASME, he was also a registered Professional Engineer of California, a Chartered Engineer in England and an Eur Ing of Europe. He presented his course on Marine Gas Turbines to various shipyards and to the Australian Navy in Canberra and was a member of technical review boards for the Navy and the Department of Energy and for several industrial companies. He was a member of the Propulsion and Energetics Panel of AGARD, a part of NATO. ✲

ASME Turbo Expo 2010 *Piped In*

TURBO EXPO
Gas Turbine Technical Congress & Exposition
Presented by the International Gas Turbine Institute

A rousing performance by an authentic Scottish piper ushered in the launch of ASME Turbo Expo 2010 during the closing ceremony of the 2009 exposition in Orlando. It was particularly fitting as Turbo Expo 2010 is scheduled to be held June 14-18, 2010, at the Scottish Exhibition & Convention Center in Glasgow, Scotland.

Conference Chair Klaus Brun spotlighted other members of the leadership team, including Executive Conference Chair Graham Hopkins and Technical Program Chair Allan Volponi and shared pictorial highlights of Glasgow and the Scottish countryside.

Visit www.turboexpo.org today for the latest details. ✲

Call for Papers – ASME Turbo Expo 2010

Abstracts are due by **September 14, 2009**, and must be submitted online (plain text, 400 word limit) via the IGTI Conference Web site at **www.turboexpo.org**.

The 2010 Publication Schedule:

Abstract Submission - September 14, 2009
Draft Paper Due Date - November 16, 2009
Paper Reviews Complete - December 28, 2009
Author Notification of Paper Acceptance - January 18, 2010
Submission of Final Paper - March 1, 2010
Final Paper Approval by Review Chair - March 29, 2010

Dr. Rakesh K. Bhargava

Dr. Rakesh K. Bhargava Awarded Dean W.R. Woolrich Engineer of the Year

This spring the ASME South Texas Section awarded Dr. Rakesh K. Bhargava the Dean W.R. Woolrich Engineer of the Year Award. The award was presented in recognition of Bhargava's superior personal characteristics, continued diligent service and contributions to engineering on all levels over a period of many years. The award also recognizes his technical achievements in the fluid mechanics of turbomachines and gas turbine technology, his mentoring of future engineers in aviation technology, and his leadership in the success of the Gas Turbine Technology Chapter and active participation in the International Gas Turbine Institute (IGTI). Bhargava has served as Chair of several IGTI technical committees, and he is currently incoming Vice-Chair of the Industrial & Cogeneration Committee. In addition, for more than 10 years he has participated in ASME Turbo Expo as a Session Chair, Session Organizer, Panelist and/or Point Contact. ✲

Young Engineer Travel Awards Presented at Turbo Expo

Eric Crosh

Stephen Lynch

New this year, IGTI offered several travel awards to students and young engineers employed in industry or government to attend ASME Turbo Expo to present papers on which they were authors. Four individuals were selected for the Orlando conference: Eric Crosh, from GE Aviation; Olga Kartuzova from Cleveland State University; Seth Lawson from Penn State University; and Stephen Lynch from Virginia Tech University.

"I'm very grateful for this wonderful opportunity to attend Turbo-Expo 2009," said Kartuzova. "I had a very good experience at the conference. I told every person I met there how IGTI's Young Engineer Travel Award made my trip to Turbo Expo possible."

Stephen Lynch also described how he benefitted from the award. "I very much appreciated (and enjoyed!) the opportunity to present my work and interact with some great folks in the gas turbine field. I hope that the Young Engineer Award program continues, and I look forward to participating in the IGTI Turbo Expo in the future."

We congratulate them all for their efforts! ✲

Olga Kartuzova

Seth Lawson

Welcome New Technical Committee Officers

We are pleased to announce the new Technical Committee Officers for July 2009 through June 2011.

AIRCRAFT ENGINE

Bill Cousins
Pratt & Whitney
East Hartford, CT USA
Committee Chair

Andrew Nix
West Virginia University
Morgantown, WV USA
Committee Vice Chair

COMBUSTION, FUELS & EMISSIONS

Timothy Lieuwen
Georgia Institute of Technology
Atlanta, GA USA
Committee Chair

Joseph Zelina
US Air Force, Air Force Research Laboratory
WPAFB, OH USA
Committee Vice Chair

CYCLE INNOVATIONS

Changduk Kong
Chosun University
Gwangju, KOREA
Committee Chair

CYCLE INNOVATIONS

Yi-Guang Li
Cranfield University
Bedford, UK
Committee Vice Chair

INDUSTRIAL & COGENERATION

Qun Zheng
Harbin Engineering University
Harbin, CHINA
Committee Chair

Rakesh Bhargava
Foster Wheeler USA Corp.
Houston, TX USA
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MARINE

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MICROTURBINES & SMALL TURBOMACHINERY

TBA

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TURBOMACHINERY

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IGTI Members Awarded ASME 2009 Melville Medal

A paper presented during ASME Turbo Expo 2006 and published in the *Journal of Turbomachinery* in July 2008 has won the ASME 2009 Melville Medal. The Melville Medal is the highest ASME honor for the best original paper (not published elsewhere) which has been published in the ASME Transactions during the two calendar years immediately preceding the year of the award.

Entitled "Development and Demonstration of a Stability Management System for Gas Turbine Engines"(GT2006-90324), the paper was authored by David Christensen, David Gutz, Aspi Wadia, Peter Szucs, and Paul Cantin, all of GE Aircraft Engines, as well as J. Armor, M. Dhingra, Yedidia Neumeier and J.V.R Prasad, all of the Georgia Institute of Technology.

First awarded in 1927, the Melville Medal is by the bequest in 1914 of Admiral George W. Melville, Honorary Member and Eighteenth President of the Society. ✲