GLOBAL Gas Turbine News

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ATLANTA, GEORGIA USA • ASME INTERNATIONAL GAS TURBINE INSTITUTE

ASME Turbo Expo 2008 Set for Berlin, Germany

June 9-13, 2008 | Berlin, Germany
Estrel Berlin Hotel & Convention Center

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

IN THIS ISSUE...

Keynote Theme and Speakers Selected

Dr. Richard J. Parker

The keynote theme in Berlin will be "Clean Gas Turbine Technologies for Land, Sea, and Air," according to Executive Conference Chair Charles Soothill and Conference Chair Knox Millsaps. The keynote speakers will provide insight into the changes in regulatory conditions that gas turbines as well as users of these power plants will face in the next decade as well as some of the technologies on the horizon to further reduce the environmental impact of gas turbines. The opening day panel will comprise a diverse group of leaders in the field of environmentally-friendly power and propulsion technology.

Dr. Richard J. Parker, Director of Research & Technology, Rolls-Royce Group, will be one member of the distinguished keynote panel. He joined Rolls-Royce in 1978 and has held various posts including Chief of Composites and Ceramics, Chief of Compressor Engineering, Managing Director – Compressor Systems, and Director of Engineering & Technology, Civil Aerospace. As Director of Research & Technology, Dr. Parker is currently responsible for direction and coordination of research and technology programs across all the Rolls-Royce businesses. Additional keynote panelists are to be announced by Mr. Soothill.

In addition, Dr. Reinhardt Hassa of Vattenfall will welcome Turbo Expo delegates to Berlin. Vattenfall is the largest generator of heat in Europe and the fourth biggest producer of electricity. As a member of the Executive Board of Vattenfall Europe AG, Dr. Hassa is responsible for the production department. At the same time, he has been CEO of Vatthenfall Europe Generation AG Administration and Vattenfall Europe Mining AG, responsible for the portfolio of power plants.

Make plans now to attend the keynote session on Monday, June 9!

LLC Committee Chair Named

Dr. Christian Oliver Paschereit, Technische Universität Berlin (TU-Berlin), has been named Turbo Expo 2008 Local Liaison Committee Chair. In this position, he is coordinating the efforts of his committee members who represent various gas turbine companies and organizations. Their objective is to build regional support and participation for Turbo Expo.

Dr. Christian Paschereit

Dr. Paschereit obtained his PhD from TU-Berlin, and has more than 15 years of industry experience, including Manager of Combustion Technologies and Manager of Technology for ALSTOM Power. In 2003 he became professor of experimental fluid mechanics at TU-Berlin. In addition, Dr. Paschereit is a member of the American Society of Mechanical Engineers, Verein Deutscher Ingenieure (VDI), the American Physical Society (APS), the European Research Community on Flow Turbulence and Combustion (ERCOFTAC), The American Institute of Aeronautics and Astronautics (AIAA) and the International Flame Research Foundation.

Be sure to visit www.turboexpo.org for details on registration and hotel reservations!

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ASME Turbo Expo 2008 Set for Berlin, Germany

(Cont. from front page)

Women in GT Dinner Returns

Cheryl Lobo

Sponsored by Pratt & Whitney, the Women Working in the Gas Turbine Area Reception & Dinner will be held Tuesday, June 10, 2008. Women who work in the gas turbine area are invited to join their colleagues for a complimentary networking event that will also feature a talk by Cheryl Lobo, Engineering Director, Compression Systems Module Center, Pratt & Whitney. Now in its 4th year, this is a unique and rewarding opportunity - one you do not want to miss.

Pre-Conference Short Courses Scheduled

This year IGTI is offering three educational short courses during the weekend before Turbo Expo. Two one-day courses, *Gas Turbine Repair & Metallurgy* and *Basic Gas Turbine Engine Technology Review and Exam* will be offered on Sunday, June 8, the day before Turbo Expo opens. A two-day course, *Gas Turbine Aerothermodynamics and Performance Modeling*, will be presented on Saturday and Sunday, June 7-8. All courses will be held at the Estrel Hotel & Convention Center in Berlin.

TURBO EXPO
Gas Turbine Technical Congress & Exposition
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Gas Turbine Repair & Metallurgy will be taught by Lloyd Cooke, Manager Operations, Liburdi Turbine Services; Doug Nagy, Senior Engineer, Liburdi Turbine Services; and Warren Miglietti, Principal Engineer, General Electric Corporation. The course is for operations & maintenance personnel who require an understanding of basic gas turbine metallurgy and repair technology to conduct business with repair shops and make repair vs. replacement parts decisions.

Basic Gas Turbine Engine Technology Review and Exam (Newly Revised Third Edition) will be taught by Dr. Klaus Brun, Manager of the Rotating Machinery and Flow Measurement Groups, Southwest Research Institute and Rainer Kurz, Manager of Systems Analysis, Solar Turbines Incorporated. The program will be divided into two, 2-hour review components and a 4-hour examination. Participants will be required to have studied the material in-depth before attending the program. The Basic Gas Turbine exam fee is included as part of the cost for the short course.

Gas Turbine Aerothermodynamics and Performance Modeling will be taught by Syed Khalid, Chief Performance and Systems Integration Engineer, with Rolls-Royce North America. He has designed this interactive course with tutorial sessions in which the attendees can work out instructor facilitated examples of gas turbine aerothermodynamics and performance modeling. The material has been evaluated and approved by the Mechanical and Aerospace Department of North Carolina State University. The course content will be useful to persons involved with: aircraft conceptual design/preliminary design, engine cycle models and performance prediction, and turbomachinery performance.

The registration fee to attend a one-day, pre-conference short course is €500. The fee for the two-day short course is €950. Fees for all courses include lunch, refreshment breaks, course materials, and 19% VAT. For a more in-depth description of each short course, please visit http://asmeconferences.org/TE08/ShortCourses.cfm.✻

CALENDAR OF EVENTS

APRIL 22-24, 2008
The Independent Power & Energy Europe 2008 (incorporating On-Site Power) Exhibition
National Exhibition Centre, **Birmingham, UK**
The event brings leading independent power and energy companies together under one roof, providing the ideal showcase and platform to network and display new technologies and products for all aspects of these growing markets.

JUNE 9-13, 2008
ASME Turbo Expo 2008
Estrel Berlin Hotel & Convention Center
Berlin, Germany
IGTI's flagship event comprises a major gas turbine conference and exhibition. 5-Day Technical Congress and 3-Day Exposition.

JULY 20-23, 2008
44th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit
Connecticut Convention Center
Hartford, CT USA
The objective for the 2008 conference is to identify and highlight the propulsion systems, components, and technologies required to enable the next generation of aerospace vehicles.

JULY 28-30, 2008
6th International Energy Conversion Engineering Conference (IECEC)
Marriott Cleveland Downtown at Key Center
Cleveland, Ohio USA
Hosted by AIAA, the IECEC 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.

SEPTEMBER 8-11, 2008
ASME Gas Turbine Users Symposium 2008
Co-located with the 37th Turbomachinery Symposium, **Houston, Texas, USA**
With its focus on gas turbine drivers, the GTUS program will complement the excellent technical content pertaining to rotating equipment offered at the Turbomachinery Symposium.

JUNE 8-12, 2009
ASME Turbo Expo 2009
Orlando World Marriott Resort and Convention Center
Orlando, Florida USA
IGTI's flagship event comprises a major gas turbine conference and exhibition. This 2009 event will be held at an all-inclusive resort with golf courses.

Gas Turbine and Compressor Market and Technology Trends in the Oil & Gas Industry

By: Rainer Kurz, Bernhard Winkelmann, Martin Habel
Solar Turbines Incorporated

The biggest requirement in the O&G industry today is probably the quest for highest availability of gas turbine packages. Many factors beyond the reliability of the gas turbine itself (and certainly beyond a mere mean time between failures perspective) determine the availability of a system, since availability includes not just factors around unplanned events, but also planned maintenance requirements. Also, it is not only the frequency of problems that plays a role, but also the time required to fix said problems.

Interesting discussions around this topic include the relative merits of other driver options such as gas engines, and a variety of electric motor drive solutions [1]. The centrifugal gas compressor is undoubtedly the compression device with the highest availability of all alternatives, and therefore will be the compression device of choice for the foreseeable future in any application where its characteristics and established ranges make it a fit. Gas turbine designs become increasingly optimized regarding their capability to operate with larger maintenance intervals, fewer shutdowns, and maintenance friendly layouts. Modular approaches, both for gas turbines and for gas compressors, are important to meet these requirements [2]. Customized maintenance concepts involve not just the gas turbine package, but also the environment and process systems around it, intelligent condition monitoring, as well as optimized maintenance and spare parts planning together with optimized logistic concepts to cover all areas around the globe.

As a result we can see many more Gas Turbine Power Plants that are used for base load applications with excellent efficiencies as well as emission profiles. Another indicator for a substantially increased reliability and availability of Gas Turbines can be observed when evaluating the amount of spare units installed in modern installations versus older ones. While in the past it was common to install spare units in almost all applications, today's installations rarely have any spare units at all.

Efficiency has received additional attention, because besides having an impact on the operating cost in many installations, operating efficiency also is the only way to reduce CO2 emissions for a given fuel gas and a given duty (unless sequestration techniques are used). For a number of oil and gas installations, especially in applications near oil or gas wells, fuel usage has only a small impact on the operating costs. Turbomachines in Oil and Gas Applications tend to be subject to a much wider range of operating conditions than most other gas turbine applications [3]. This is not only driven by changes in ambient conditions, but also by often vast changes in process conditions on all time scales, particularly in upstream or production applications. When a project is originally planned, many factors need to be estimated. This includes production rates, Gas to Oil ratios but also factors like the depletion of a field or future tie backs or, even harder to estimate, future technology that may enable a particular field to operate longer.

From the manufacturers' standpoint, this requires a wide portfolio of driver and driven equipment solutions to be able to offer optimized solutions as well as Service and Uprate or Upgrade products that constantly help optimizing the installed equipment. Fuel flexibility is another key issue [4], in particular with gas turbines using some form of emissions control (for example lean-premix combustors). This is an area with enormous research requirements and opportunities.

To meet these requirements, research and development efforts involve combustion dynamics, improved materials and coatings, and optimized aerodynamic designs for axial and centrifugal compressors, turbines, as well as secondary systems. The capability to integrate disciplines during the design phase, for example being able to integrate aerodynamic and mechanical design and the manufacturing requirements, and the tremendous improvements in aerodynamic tools, allowing to model entire compressors, or to combine aerodynamics and combustion reactions, are key ingredients for better designs.

In all these factors, the gas turbine, or in a wider sense, the turbomachinery system (that is, the gas turbine, as well as the gas compressor or other driven equipment), are seen as part of an overall system. Therefore, the quest is no longer limited to just building a gas turbine with higher power density, or higher efficiency. It is rather the requirement to provide an integrated system of turbomachinery products that not only operate well within the parameters dictated by the application, but also include the necessary integration in a condition monitoring based, intelligent maintenance system. Most industrial installations are designed for a field life of at least 20 years. Given the fast developments of all elements of the turbomachinery packages it is of increasing importance for manufacturers to develop service products that can continuously improve any or all parameters of a given installation.

In general, all of these concerns have to be seen in the light of the requirement of all operators to achieve the most profitable operation, while minimizing the impact on the environment. It should come as no surprise that turbomachinery solutions for the oil and gas industry don't force an 'either – or' decision, but rather allow to combine and optimize commercial and environmental considerations. ✻

References:

[1] Kurz,R.,and Sheya,C.L., 2005, Gas Turbines or Electric Drives in Offshore Applications, ASME Paper GT2005-68003

[2] Kurz, R., 2004, Industry Benefits from Efficiencies of Modular Gas Compressor Design, Pipeline & Gas Journal, October 2004.

[3] Kurz, R., 2007, Load Based Compressor Station Optimization, Proc. MEMEC 2007

[4] Kurz,R., Wen,C., Cowell,L., Lee, J.C.Y., 2007, Fuel Flexibilty for Advanced Gas Turbines with up to 15MW Output, VGB Powertech, Vol.87/2007.

The IGTI Turbo Expo Review Process

The Turbo Expo conference and the two ASME journals it supports (Journal of Turbomachinery, JT, and Journal of Engineering for Gas Turbines and Power, JEGTP) rely on the peer review process. This process uses impartial, external experts (Reviewers) to evaluate all technical papers submitted to the Turbo Expo. Over the past several decades, IGTI's policy of "peer review before presentation" has earned it a reputation for presenting technically solid papers at Turbo Expo. The IGTI peer review process is unique amongst technical conferences in that the quality and content of the reviews are expected to also satisfy the requirements demanded of archival journal judgments. As such, both the review process and the Reviewers must uphold the highest standards for quality and deliver well-documented, thorough feedback to all authors.

Given the large number of technical manuscripts being processed for each Turbo Expo, and the limited review process schedule, some Reviewers may not have formal or informal instruction on how to review a paper; review standards as such may not be applied uniformly; and less-qualified individuals may be conducting some reviews. As Turbo Expo grows and the technical community expands to new areas and new people, it is important that we communicate the expectations for the review process, the Reviewers, and the technical papers (both conference and journal papers) to all concerned.

We asked ourselves the following questions:

- "What makes a good technical manuscript review?"
- "What are the appropriate standards for an archival journal paper?"
- "What constitutes an archival journal paper?"

The answers to these questions come from an ad-hoc group of members (peers) of several IGTI Technical Committees.

What Makes a Good Technical Manuscript Review?

The purpose of review is to determine whether the paper is acceptable for publication, needs revision, or should be rejected. The review begins with the selection of qualified and knowledgeable Reviewers. The Session Organizer must consider the following questions:

- What is the subject of the paper?
- Is the Reviewer able to perform the review without a potential conflict of interest?
- Has the Reviewer published in the same technical area or has he/she sufficient knowledge of this technical area for him/her to be considered an expert by other peers?

Once selected and assigned, the Reviewer must evaluate a paper's originality, significance, relevance, narrative and correctness, keeping in mind the many facets supporting these key judgment areas.

Foremost and above all else:

- Is the paper relevant and interesting to the gas turbine technical community and readers of the journals?

Questions that should be considered regarding the narrative and correctness include:

- What is the purpose of the paper?
- Is the presentation satisfactory? Is it well organised?
- Is the paper of an appropriate length? Is it clear and concise?
- Is there an appropriate introduction?
- Is the selection of material appropriate?
- Is there validation of any theory or computational method?
- Is the experimental accuracy assessed?
- Is the method of approach valid?
- Is it technically correct?
- Are the figures and tables appropriate? Are the figures and tables clear? Are there too many figures or tables?
- Is there sufficient analysis and interpretation of each figure?
- Are the conclusions drawn from the results? Are there any conclusions or is there just a summary?
- Are the references appropriate?
- Is the use of English satisfactory?

In terms of the originality, significance and relevance:

- Is the contribution original or innovative?
- Does the work advance the "state of the art" sufficiently?
- What are the main conclusions and recommendations?
- Are the conclusions and recommendations tangible and useful to the gas turbine community?
- Has more than a small amount, say 25%, of the paper been published before in a similar format?
- Is the subject of the paper appropriate for the journal (JT or JEGTP)?
- Is it of long-term, archival value?

The provision of written comments is the key to the review, whether the manuscript is recommended for conference presentation and/or journal publication. A good review must provide:

- A summary of the important points of the paper in one to five sentences to indicate that the Reviewer actually understands the paper.
- A statement of the significance, relevance and originality of the research, or lack thereof.
- An critical evaluation of the methodology, accuracy and suitability of the work.
- An evaluation of the quality of the presentation.
- An overall recommendation for or against conference presentation and/or journal publication.
- Detailed reasons for the recommendation, whether it is favourable or not.
- Clear statements of both necessary and suggested changes required before conference presentation and/or journal publication.

The recommendations for or against conference presentation or journal publication must be supported by specific and critical comments. For example:

- "This paper is recommended for journal publication because…" or
- "This paper is of current interest but falls short of archival value because…" or
- "This paper is not recommended for presentation or publication because…" or
- "This paper is recommended for journal publication provided the following revisions are made by the authors…".

If a manuscript is being recommended for journal publication, the Reviewer must clearly provide a summary of the reasons why this is so. Merely checking the box and saying that only minor revisions are required is not sufficient. If the paper is not recommended for journal publication, the Reviewer must state why this is the case, and also go one step further to comment on what would make the research of permanent interest. In cases when the review is inadequate, the Reviewer will be asked to revise his/her submission.

A bad review simply passes judgement on a paper without explaining the reasons why.

A review does not need to contain a blow-by-blow account of every single typographical error if these and/or other problems are so numerous as to render the paper un-presentable or un-publishable.

What Are the Appropriate Standards for an Archival Journal Paper?

The standard of a journal paper is not absolute. In effect, it is established by the average of the papers that the technical community (you) find worth reading or are published in the journal. Using this standard, the Reviewer should be able to put the paper into one of the following categories:

1. Major results, very significant contribution, award quality (top 1%) - publish
2. Good, solid, interesting work; a definite contribution (next 10%) – publish
3. Minor but positive contribution to knowledge (next 10-20%) – publish with discretion
4. Elegant and technically correct but useless relative to stateof- the-art – don't publish
5. Neither elegant nor useful, but not actually wrong – don't publish
6. Wrong or misleading – don't publish
7. So badly written that technical evaluation is impossible – don't publish.

What Constitutes an Archival Journal Paper?

A journal paper

- is ***interesting***
- is ***original***, making a unique, imaginative or innovative contribution to the field
- contains a ***clear narrative*** from the introduction, through the work carried out to a clear expression of substantial conclusions and recommendations
- is of ***sufficient significance*** and ***relevance*** to the gas turbine industry that it will be referred to by other workers in the field for years to come

All of the above are required, whether the paper contains new work or is presenting previously published work in a new light.

The requirement that the paper be interesting means that quite a few people will want to read it. The need for originality means that most or all of the research has not been published before in the same or a similar format. Originality can be met with new theoretical, computational or experimental techniques, new results or new interpretations or syntheses of existing results that lead to new discoveries, new research directions, new and useful methods, new design guidelines, new physical insight, new confirmations of ideas.

A clear narrative means that (1) there is an introduction that places the paper in the broader context as well as in the specific context, (2) the experimental/computational/theoretical techniques are clearly described, (3) care has been taken in choosing which results are presented, (4) there is a thorough analysis and discussion of all of the results, (5) there are explicit and substantial conclusions and recommendations and that these are based on the analysis and discussion, (6) the references are appropriate in number and are properly selected, (7) there is a clear and strong development of ideas as the reader progresses through the paper, and (8) the paper is free from the poor use of English and typographical errors.

That the paper is significant and relevant requires that (1) it contains [just] enough information to allow others to reproduce or verify the main conclusions independently, (2) the reported accuracies of experimental/computational/theoretical techniques are sufficient for the purpose of the paper, (3) there are explicit conclusions and/or recommendations and that these can be used to develop or create new ideas, tools, processes or products, (4) it makes a step forward in the "state of the art", and (5) it will be referred to by other workers in the field for some years to come.

The better journal papers often, but not always, provide new physical insight into results obtained by a synergy of experiments, computation and theoretical analyses. They then present those results in a way that is useful not only to the researchers in the specific field but also to a much wider audience.

A paper that does not meet these standards is not acceptable for journal publication, although authors may be encouraged to rewrite or revise the paper when appropriate. ✻

PROFESSIONAL DEVELOPMENT

News Update on IGTI's Professional Development Department

The 2008-2010 IGTI Education Plan encompasses the foundation of a new standing committee called the Professional Development Committee (PDC). It will be comprised of an Education Champion (EC) from each of the standing committee's who will act as a communication and facilitation liaison with their respective committee. The first official meeting of the PDC will be in Berlin, Germany, the week of June 8 during Turbo Expo 2008.

IGTI is looking for industry experts, such as you, to assist in identifying Subject Matter Experts and topics to develop training programs for the industry. The training need is clearly identified through the surveys which have been done over the last year.

We are also looking for topics to develop 2-5 day training courses. Training is critical to job performance. If there is an area you need training in or a topic you would like to teach, please contact Shirley Barton, IGTI Professional Development Manager, at +1 404-419-1647 or bartons@asme.org.

Coming in March! Newly Revised Basic Gas Turbine Technology Self Study Course 3rd Edition (CD-ROM)

Learning the basics has never been easier! This Self-Directed Study Course is a non-mathematical approach to understanding the fundamental nature of gas turbine engines and the processes which affect their performance. The course is ideally suited to technicians and management personnel. It will also prove to be of value to those engineers starting their careers in the fields of gas turbine engine and auxiliary equipment operation, maintenance or service, specification, sales and manufacture. Learning objectives: Understand the fundamentals of operation, manufacture, maintenance and economics as they apply to the gas turbine.

IGTI Products

Webinars

Did you miss your chance to participate in one of our recent interactive Webinars? Now you can order a downloadable file or on a CD-ROM. Visit the IGTI web page to view a list of all webinars at http://files.asme.org/IGTI/Events/12800.pdf

Technical Papers - Access to the Best in Gas Turbine Technology

IGTI's archive houses a unique and extensive collection of published gas turbine research. Technical paper reprints dating from 1947 to the most recent TURBO EXPO are available for purchase. For more details, visit http://igti.asme.org/Publications/.

Self-Directed Study Courses:

- The Design of Gas Turbine Engines - Thermodynamics & Aerodynamics, 2nd Edition
- Gas Turbine Applications & Economics
- Basic Gas Turbine Engine Technology Online Self-Study Course

For more details, visit: http://igti.asme.org/Education/Training/.

Workshop CDs:

- Gas Turbines Fundamentals
- Combustion Dynamics
- Gas Turbine Repair Metallurgy and Metallurgy Techniques
- Industrial Gas Turbine Operation and Performance-2003/ 2004
- Preliminary Design of Aircraft Engines-Concepts to Hardware
- Combustion Humming in Gas Turbine Based Power Plants
- Basic Gas Turbine Metallurgy and Repair Technology

For more details, visit: http://igti.asme.org/Education/Training/.

Books

- The History of Aircraft Gas Turbine Engine Development in the United States: A Tradition of Excellence, Hardcover - This absorbing, anecdotal history of gas turbine aircraft engine development in the United States was ten years in the making.✲

A Letter of Thanks from UTSR

Dear Mr. Ireland,

On behalf of all the organizations that participate in the University Turbine Systems Research (UTSR) program, I want to personally thank you, Dr. Hall, Dr. Millsaps, Mr. Craft, and all the members of the IGTI for your support of the UTSR program. The Fossil Energy Turbine Program, of which the UTSR program is a part, faced some serious challenges this year, and I am certain that your endorsement to the Senate Appropriations Subcommittee on Energy and Water Development had a substantial positive impact on their deliberations.

We are proud to have been recognized by a leading organization like the IGTI for our efforts to both advance the state of the art in industrial gas turbines and to develop the future engineering workforce on which the gas turbine industry will depend.

I look forward to continued cooperation between our organizations.

Sincerely,

Robert Leitner
Associate Director, SCIES

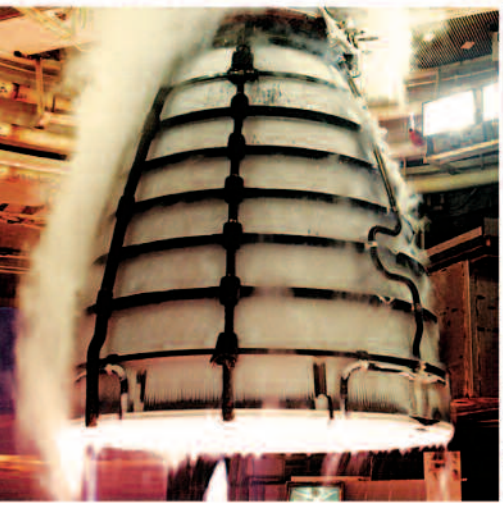
AIAA/ASME/SAE/ASEE

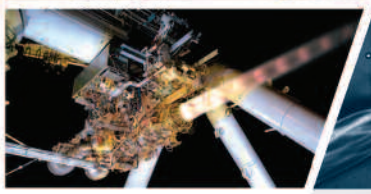
44th Joint Propulsion Conference & Exhibit

Joint Propulsion Conference & Exhibit

20–23 July 2008

Connecticut Convention Center • Hartford, Connecticut





6th International Energy Conversion Engineering Conference

IECEC

28–30 July 2008

Cleveland Marriott Downtown
Cleveland, Ohio

AIAA industry partner Pratt & Whitney proudly invites you to Hartford, Connecticut, "New England's Rising Star," for the 44th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit, 21–23 July 2008. The design of our next-generation flight and space systems will be dependent more than ever on high-performance, increasingly efficient, reliable, and affordable propulsion systems. Our ability to field future aircraft and spacecraft will have far-reaching impacts on the prosperity and safety of our global community. Come to Hartford in 2008 and be part of our exciting future in the aerospace propulsion industry.

For more information please visit our Web site:
www.aiaa.org/events/jpc

The IECEC 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.

The IECEC is hosted by AIAA, which is joined this year by three Participating Organizations. These organizations are:

- The Heat Transfer Society of Japan Advanced Energy Conversion Group
- The IEEE Aerospace & Electronic Systems Society (AESS)
- The Egyptian Society of Mechanical Engineers (ESME)

For more information please visit our Web site: **www.iecec.org**

AIAA
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INTERNATIONAL GAS TURBINE INSTITUTE
5775 Glenridge Drive, NE Suite C115
Atlanta, Georgia 30328-7141 USA

GTUS 2007 Provides Excellent Networking Opportunity… GTUS 2008 Set for Houston

GTUS 2007, held Dec. 11-13 in New Orleans, LA, offered gas turbine users an array of panel sessions, a tutorial on field testing and condition-based monitoring, and a roundtable on emerging solutions and applications. A networking dinner held on Wednesday, December 12, provided a great opportunity for attendees to meet industry colleagues and share common experiences.

GTUS 2008 will offer a change in venue for attendees. In September 2008, the ASME Gas Turbine Users Symposium (GTUS) will be co-located with the 37th Turbomachinery Symposium, which is organized by the Texas A&M (TAMU) Turbo Lab.

"With its focus on gas turbine drivers, the 2008 GTUS program will complement the excellent technical content pertaining to rotating equipment offered by the Turbomachinery Symposium," said Patrick Campbell, GTUS Chair.

Mark your calendar now to attend GTUS 2008, Sept. 8-11, at the George R. Brown Convention Center in Houston, Texas. For more details and program updates visit: http://www.asmeconferences.org/gtus08/.*

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Published by the International Gas Turbine Institute
The American Society of Mechanical Engineers
5775 Glenridge Drive NE, Suite C115, Atlanta, Georgia 30328-7141 USA
Phone: +1 (404) 847-0072 •Fax: +1 (404) 847-0151
E-Mail: igti@asme.org • Web Site: http://igti.asme.org/