

11th International Conference on
Pressure Surges

Lisbon, October 24 - 26, 2012

Surge Analysis

Looking to the future,
Learning from the past

Call for papers

SURGE ANALYSIS – Looking to the future, learning from the past

The prediction of surge pressures is well established, with methods and analysis techniques constantly advancing. However, work undertaken in the past and the inventiveness of researchers and designers in transient analysis should never be underestimated. Inherent surge problems can occur whether dealing with potable, foul or storm water, full or partially-full flow regimes and systems such as bio, firewater, cooling and water injection, oil and chemical pipelines and power or fuel systems. With differing solutions across industries, (e.g. Water, Oil & Gas, Nuclear, Hydroelectric, Petrochemical, Automotive, Aerospace and Building Services, etc.), the dissemination of past experience from other industries and designers will be of great benefit.

Conference features

- How can or does surge analysis really affect design decisions?
- How do we implement practical design solutions whilst controlling/managing risk? How do we ameliorate risks associated with incorrect design implementation?
- Do our models accurately predict what happens in real systems? Are we seduced by colourful simulations and forget the numbers and uncertainties?
- The innovative application of surge phenomena, not as a problem but as a welcome tool.
- Surge analysis related to renewable energy and energy savings.
- Learning from the past to look to the future.

The Conference will feature interactive, educational, informal and lively panel sessions along with discussion/debate forums led by industry experts. The Committee welcomes suggestions for specific topics for these sessions.

With contributions from the following:

Professor Bryan Karney

Professor Helena Ramos

Dr Didia Covas

Professor Angus Simpson

Professor Sam Martin

Professor Dave Wiggert

University of Toronto, Canada

Instituto Superior Técnico, Tech. Univ. of Lisbon, Portugal

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University of Adelaide, Australia

Georgia Tech, USA

Michigan State University, USA

Offers of papers, selection criteria and objectives

DEADLINE FOR ABSTRACTS; 4 November 2011

The usefulness of any conference to delegates is directly related to the quality of the papers presented. Papers that bring together co-authors from different industries or from different sectors of an industry, or from joint academic/industrial teams, would be especially welcome. Selection of papers will take account of originality, relevance and likely interest to delegates. This conference will attract contributions on two levels:

- practical experiences (“industrial papers”)and
- research advances (“research papers”).

The Technical Committee will treat these contributions separately. Predominantly theoretical papers are normally expected to include experimental or other practical validation.

The committee invite presentations on major international projects (including Yizheng and Nanjiang oil transfer pipelines, SMART update, Singapore Water Park). Papers on all aspects of the design, simulation, commissioning, monitoring, control and maintenance operations of major international projects with particular reference to the fluid transients experiences gained will be welcomed. Project driven papers are invited relating to the lessons learnt from system failures.

Conference proceedings

The conference papers are professionally published as a soft bound volume and include a CD. The proceedings will be included in the registration fee and additional copies available for sale after the conference.



Image courtesy of Deltares, The Netherlands

1. Industrial papers

A major purpose of the Conference is to foster trans-industry, trans-national and trans-functional dissemination of best practice relating to transient analysis. The Conference aims to bring together practitioners and designers from a wide range of industries to share experiences and hence enhance expertise for future implementation.

The Committee invites papers addressing issues such as:

- Good design practices, identification of specific pressure surge issues and recommendations for surge alleviation and control strategies.
- Validation to justify or test the capabilities of surge control devices or simulation software, from both suppliers and users.
- Case studies of surge incidents and innovative surge protection strategies.
- Field or laboratory test results that can be used by the community to evaluate software or product performance data.
- Practical design information (e.g. for surge alleviation devices) or procedures of direct value to system designers and analysts.
- Non-conventional application of surge analysis software (e.g. during commissioning or normal operation).
- How risk management of fluid transients has been integrated explicitly with pipe system design.

Submissions in this category will be reviewed by a single referee. Papers should be of a technical nature and must avoid direct advertising or unsupported claims.

2. Research papers

To further technical and scientific progress in unsteady flow analysis and to raise awareness of industrial practitioners to 21st Century developments, the Committee invites Research Papers addressing, for example:

- Improved simulation of surge relief or control strategies or verification of models.
- Advanced applications (such as leakage detection).
- Complex interaction phenomena such as multi-phase or cavitating flows, gas release, fluid-structure interaction or flow-induced vibrations.
- Fundamental issues in numerical methods or fluid behaviour (such as unsteady friction).
- Application of new techniques to unsteady flow issues.

- Papers that deal with historical figures from the past whose innovations and foresight have led to the current status of transient analysis.

Submissions in this category will be refereed to normal scientific paper standards by two independent referees drawn from an international panel of recognised authorities in fluid transients.

In allocating papers to sessions, the Committee will seek to maximise the benefit for all authors and delegates. All papers will be included in a bound book of proceedings and electronically supplied to delegates registered for the Conference.

Authors are invited to submit title and abstract within the scope of the Conference, to reach the Conference Organiser 4 November 2011, please ensure you advise whether your paper is Industrial or Research.

The abstract must be relevant to the scope, and the title should reflect the content of the paper. Abstracts should be submitted by email to confx2@bhrgroup.co.uk

Important – Authors please note

- Papers ***must be original, unpublished, and not pending publication elsewhere.***
- The author submits each paper on the understanding that, if accepted, the author must attend the Conference to present the paper and discuss with delegates. Each presenting author is entitled to 25% discount on the full Conference fee.
- Papers, and presentation at the Conference, must be in English.
- Papers should be no longer than 15 printed pages. There is no minimum length
- The title should be appropriate to the scope and should reflect the content of the paper.
- Guidelines for the preparation of manuscripts and/or posters will be supplied by BHR Group. Papers conforming to these guidelines will, subject to final refereeing, be accepted for publication.
- The copyright of accepted papers must be transferred to the Publisher. Authors who wish to retain copyright must notify the organisers when submitting their abstracts.
- Authors who wish to present commercial material are invited to take an exhibition stand in addition to presenting their technical paper.

Timetable

Deadline for receipt of abstract

4th November 2011

Deadline for receipt of manuscript

27th April 2012 (feedback on acceptance will be supplied 2 months from receipt of manuscript)

Deadline for receipt of final manuscript

20th August 2012

Technical committee

UK TAC Members

Dr Sandy Anderson

University of Newcastle Upon Tyne, UK

Dr Stephen Beck

University of Sheffield, UK

Dr Peter Glover

Peter Glover Consulting Ltd., UK

Mr Martin Hamilton

Spectrum Fluid Dynamics, UK

Dr Stephen Hunt (*Chairman*)

Hydraulic Analysis Ltd., UK

Mrs Sarah Jones

Mott McDonald, UK

Dr Steve Murray

BP Exploration Ltd., UK

Dr Ivo Pothof

Deltares, The Netherlands

Dr ArrisTijsseling

Eindhoven University of Technology, The Netherlands

Professor Alan Vardy

University of Dundee, UK

Advisory Panel

Dr Anton Bergant

Litostroj Power d.o.o., Slovenia

Professor Eng Bruno Brunone

Università degli Studi di Perugia, Italy

Dr Andreas Dudlik

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Professor Sam Martin

Georgia Tech, USA

Professor David Thorley

City University London, UK

Professor David Wiggert

Michigan State University, USA

Professor Ben Wylie

University of Michigan, USA

Who should attend?

Everyone who owns, constructs, designs, analyses, researches into or manufactures equipment for pipe systems (and should therefore appreciate the effect pressure surges could have upon them) should be present.

Sponsorship & exhibition

Do you have a product or service to promote and would like to enhance your brand awareness? For details of how BHR Group can tailor a sponsor package to suit your needs, please contact the organisers. There will also be a tabletop exhibition alongside the Conference. Exhibition stands will be limited and prospective exhibitors are strongly advised to register their interest with the organisers at the earliest opportunity.

Venue

Lisbon is the capital of Portugal and lies on the north bank of the Tagus Estuary, on the European Atlantic coast. It is the westernmost city in continental Europe. The city lies more or less in the centre of the country, approximately 300 km from the Algarve in the south and 400 km from the northern border with Spain.

Lisbon offers a wide variety of options to the visitor, including beaches, countryside, mountains and areas of historical interest only a few kilometres away from the city centre. Full details can be found on the tourist board www.visitlisboa.com

Travel and accommodation details will be included in the registration leaflet available mid 2012. Full details can be found at www.bhrconferences.com



BHR Group

BHR Group is an independent Research and Technology organisation. Our services to industry are based around our core skills in Fluid Engineering and include consultancy, research and development, conferences, seminars and specialist training.

For more information, please visit our website at www.bhrgroup.com

Enquiries

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