

**CALL FOR PAPERS**

**Third International Conference on Computational  
Methods and Experiments in Material Characterisation**

# **Materials Characterisation 2007**

**13 - 15 June 2007**

**Bologna, Italy**

*ORGANISED BY:*

**Wessex Institute of Technology, UK  
University of New Mexico, USA**

*SPONSORED BY:*

**WIT Transactions on Engineering Sciences**



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## INTRODUCTION

In view of the success of the two previous meetings in this series (Santa Fe, New Mexico, 2003 and Portland, Maine in 2005) it has been decided to reconvene the International Conference on Computational Methods and Experiments in Materials Characterisation, in 2007. The meeting will take place from 13 - 15 June 2007 in Bologna, Italy.

Until recently, engineering materials could be characterised successfully using relatively simple testing procedures. As materials technology advances, interest is growing in materials possessing complex meso-, micro- and nano-structures, which to a large extent determine their physical properties and behaviour. The purposes of materials modelling are many – optimisation, investigation of failure, simulation of production processes, to name but a few. Modelling and characterisation are closely intertwined, increasingly so as the complexity of the material increases. Characterisation, in essence, is the connection between the abstract material model and the real-world behaviour of the material in question. Characterisation of complex materials therefore may require a combination of experimental techniques and computation.

The objective of this conference is to bring together researchers who use computational methods; those who perform experiments, and of course those who do both in all areas of materials characterisation. Discussion will be focused on recent results and ideas, in order to foster the multidisciplinary approach that has become necessary for the study of complex phenomena. Topics of interest for this conference range from generic characterisation methods to damage assessment and application to particular materials. Of particular interest is the synergy between computational methods and experimental procedures.

## WHO SHOULD ATTEND

Scientists working in industry, research organisations, government and academia, who are working on computational aspects of material characterisation and the comparison of their solutions with experimental results.

## CONFERENCE CHAIRMEN

**A A Mammoli**

*University of New Mexico, USA*

**C A Brebbia**

*Wessex Institute of Technology, UK*

## INTERNATIONAL SCIENTIFIC ADVISORY COMMITTEE

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*Czech Technical University, Czech Republic*

**P Viot**

*LAMEFIP, ENSAM de Bordeaux, France*

## PUBLICATION OF PAPERS

Papers presented at Materials Characterisation 2007 will be published by WIT Press as a volume of WIT Transactions on Engineering Sciences (ISSN 1743-3533). In addition to being available to delegates at the time of registration, the hardcover volume will be publicised directly to researchers and institutional libraries and distributed widely through the international book trade.

The papers will also be archived online in the Transactions of the Wessex Institute Collection ([library.witpress.com](http://library.witpress.com)). The Collection provides the international scientific community with immediate and permanent access to individual papers presented at WIT conferences. WIT Press is committed to offering authors the option to make their work freely accessible to colleagues through their Open-Access service.

Coverage of WIT proceedings appears regularly in notable publications and databases, including Applied Mechanics Reviews (AMR), Cambridge Scientific Abstracts, Ei Compendex, INSPEC, Thomson Scientific, Scitech Book News as well as the Directory of Published Proceedings.

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# ENQUIRY FORM

## MATERIALS CHARACTERISATION 2007

13 - 15 June 2007, Bologna, Italy



### CALL FOR PAPERS

Papers are invited on the topics outlined and others falling within the scope of the meeting. Abstracts of no more than 300 words should be submitted **as soon as possible**. We strongly encourage the submission of abstracts electronically.

Abstracts should clearly state the purpose, results and conclusions of the work to be described in the final paper. Final acceptance will be based on the full-length paper, which if accepted for publication, must be presented at the conference. To be fair to all participants, each registered delegate will only be able to submit one paper.

*The language of the conference will be English.*

### CONFERENCE TOPICS

#### Microstructures

- Composites
- Ceramics
- Alloys
- Cements and cement based materials
- Biomaterials
- Thin films and coatings
- Advanced materials

#### Experimental Methods

- Imaging (optical, SENTEM, NMR/MRI and others)
- Image analysis
- Thermal analysis
- New methods
- Surface chemistry
- Nano indentation

#### Computational Methods

- Continuum methods
- Particle models
- Damage mechanics
- Innovative techniques
- Stochastic methods

#### Please indicate your intention below:

- I intend to submit a paper and present it.
- I intend to participate in the conference, but will not be submitting a paper.
- I am interested in renting mini-exhibition space.
- I am interested in sponsorship opportunities.

### ABSTRACT SUBMISSION

#### Email Submission

**Email:** rcreasey@wessex.ac.uk  
Please submit your abstract with Materials Characterisation 2007 in the subject line. Include your name, full address and conference topics.

#### Web Submission

[www.wessex.ac.uk/conferences/2007/mc07](http://www.wessex.ac.uk/conferences/2007/mc07)

#### Fax Submission

**Fax: 44 (0) 238 029 2853**  
Fax one copy of your abstract with this completed Enquiry Form.

#### Mail Submission

**Mail:** Rachel Creasey, Conference Secretariat, Materials Characterisation 2007, Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK. Please mail a copy of your abstract with this completed Enquiry Form.

**Telephone: 44 (0) 238 029 3223**

*Wherever possible information about this conference will be sent to you by email.*

Title (Prof/Dr/Mr/Mrs/Ms) .....

Initials ..... Surname .....

Organisation .....

Address .....

.....

Postcode/Zip .....

Country .....

Telephone .....

Fax.....

Email.....

I suggest this announcement should also be sent to:

Title..... Initials ..... Surname .....

Email.....

*By completing this form, we understand that you are agreeable to receiving further information on this event and other activities which we believe will interest you. We will not disclose this information to third parties.*

## BENEFITS TO YOU

- Keep up-to-date on the latest advances in the field.
- Present your research within a unique forum.
- Collaborate with experts from around the world.
- Your conference paper will be reviewed by members of the International Scientific Committee and other colleagues and selected papers will be rapidly processed for publication in book form.
- Your paper will also be permanently archived in the Transactions of the Wessex Institute on our eLibrary site, where it will be available to the international scientific community.

## LOCATION



Piazza Maggiore: Photo by Vito Arcomano. Courtesy of Fototeca ENIT

Bologna is the capital city of Emilia-Romagna and houses over 400,000 inhabitants. Situated on the south-eastern side of the Po Valley on the foothills of the Apennines, it is only one hour by train from Florence and two hours by train from Venice. The international airport is approximately 15 minutes from the hotel by car or taxi. Few European cities show such a contrast between picturesque medieval times and busy modern commercial life as vividly as Bologna. Characterized by long porticoes, mediaeval towers, XIII - XVII century palaces, monumental churches and the warm red colour of the brick buildings, this is interspersed with old arcade streets lined with busy shops, modern theatres and office buildings.

## CONFERENCE VENUE

The conference is to be held at the Royal Hotel Carlton, located in the historic and commercial centre of Bologna. This superior first class hotel is surrounded by beautiful gardens and is in a prime location 100m from the Central Railway Station and just 5km from the Bologna International Airport. The hotel boasts rooms with a range of luxury facilities.

## ABSTRACT/PAPER SUBMISSION

### Abstract (300 words):

*Submit to Conference Secretariat as indicated on the Enquiry Form*

### Camera Ready Final Paper:

*Submission date to be advised upon acceptance of your abstract*

## WESSEX INSTITUTE OF TECHNOLOGY



The Wessex Institute of Technology, the International Centre for Knowledge Transfer, has now entered a very exciting phase with the extension of its physical facilities and the number of programmes on offer.

The excellent reputation of WIT Conferences in different parts of the world continues to grow and serves as an ideal medium to achieve WIT's objectives.

In addition to the international conference programme, WIT's activities include:

- Graduate Programmes at Master and PhD level
- Advanced research
- Publications, including books, conference proceedings and journals
- E-Publishing comprising the Transactions of Wessex Institute
- Software Services

**FOR FURTHER INFORMATION VISIT  
[www.wessex.ac.uk](http://www.wessex.ac.uk)**

## CONFERENCE SECRETARIAT

**Rachel Creasey**

**Conference Secretariat**

**MATERIALS CHARACTERISATION 2007**

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## DISPLAY FACILITIES

There will be space for organisations to display products, services and literature related to the theme of the conference. Further details are available from the Conference Secretariat.