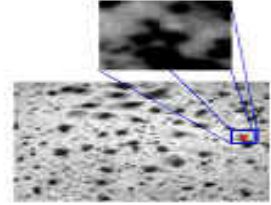
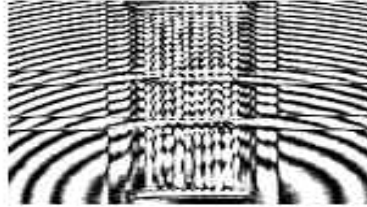


# OPTIMESS

Optical Measurement Techniques  
for Structures & Systems



## ***FINAL PROGRAM***

### **2<sup>nd</sup> Workshop “*OPTical Measurements for Structures and Systems*”**

**Organized by the “*OPTIMESS*” Network**

**Registration deadline: 15 October 2005**

#### DATE OF THE WORKSHOP

Thursday 27 October 2005

#### WORKSHOP VENUE

Conference Centre “Het Pand”  
Universiteit Gent  
Onderbergen 1  
B-9000 Gent  
Belgium

#### INVITED LECTURES

We are pleased to announce that the invited lectures will be held by:  
Prof. Wolfgang OSTEN (Institut für Technische Optik, Universität Stuttgart, Germany)  
and  
Prof. Hartmut BARTELT (Institute for Physical High Technology, Jena, Germany)

## PARTICIPATING INSTITUTIONS

IMEC  
KMS  
K.U.Leuven  
UA  
UGent  
VUB

## SCOPE

This technical workshop is a forum for users and researchers developing and working with optical measurement techniques. Different techniques are covered:

- Electronic Speckle Pattern Interferometry (ESPI)
- Image Correlation Techniques
- Moiré Techniques
- Laser Doppler Vibrometry
- Photo-elasticity
- ...

## PROCEEDINGS

A booklet with bound abstracts will be distributed at the workshop.

## DEADLINES

Abstract submission deadline: 26<sup>th</sup> September 2005

Acceptance notification: 3<sup>th</sup> October 2005

Workshop registration: 15<sup>th</sup> October 2005

## FEES

Participation to the workshop is free.

## APPLICATION AREAS

- o Automotive Engineering
- o Aerospace Engineering
- o (Micro) Electronics Engineering
- o Damage detection
- o Material Characterization
- o Large-scale vibrations, Civil Engineering
- o Medical, Bio-physical systems
- o Production control
- o ...

## ORGANIZATION

The workshop is organized in the framework of the OPTIMESS Scientific Research Network supported by the Fund for Scientific Research, Flanders (FWO).

For additional information on the network and the workshop please contact the OPTIMESS coordinator ([optimess@vub.ac.be](mailto:optimess@vub.ac.be)).

## WORKSHOP PROGRAM

09u15 – 09u45	Registration
09u45 – 10u00	Welcome
10u00 – 11u00	<b>Keynote presentation</b> <b><i>New Ways in optical nondestructive testing</i></b> Prof. Wolfgang Osten Institut für Technische Optik, University of Stuttgart
11u00 – 11u20	Coffee break
11u20 – 11u40	<i>The use of pulsed ESPI for the detection of subsurface defects</i> G. Kalogiannakis <sup>a</sup> , C. Glorieux <sup>b</sup> , D. Van Hemelrijck <sup>a</sup> <sup>a</sup> Mechanics of materials and constructions, Vrije Universiteit Brussel, Belgium <sup>b</sup> Dept. of Acoustics and Thermal Physics, K.U.Leuven, Celestijnenlaan 200D, Heverlee
11u40 – 12u00	<i>Results from Bilateral Collaboration in Detection of Fibre Reinforced Composite Materials by Fringes Projection and Speckle Shear Interferometry</i> V. Sainov <sup>a*</sup> , J. Harizanova <sup>a</sup> , S. Ossikovska <sup>a</sup> , Wim Van Paepegem <sup>b</sup> , J. Degrieck <sup>b</sup> , P. Boone <sup>b</sup> <sup>a</sup> CLOSPI-BAS, Bulgarian Academy of Sciences, Sofia, Bulgaria <sup>b</sup> Dept. of Mechanical Construction and Production, Ghent University
12u00 – 12u20	<i>Flow characterization using a Laser Doppler Vibrometer</i> J. Vanherzeele*, S. Vanlanduit and P. Guillaume Dept. of Mechanical Engineering, Vrije Universiteit Brussel, Pleinlaan 2, 1050 Brussel, Belgium
12u20 – 12u40	<i>Visualization of sound by means of Schlieren imaging in ultrasound research</i> N. Declercq, O. Leroy and J. Degrieck Dept. of Mechanical Construction and Production, Ghent University
12u40 – 14u15	LUNCH
14u15 – 15u15	<b>Keynote presentation</b> <b><i>Optical Fiber Sensor Systems</i></b> Prof. Hartmut Bartelt Institute for Physical High Technology, Jena, Germany
15u15 – 15u35	Coffee Break
15u35 – 15u55	<i>Theoretical study of the feasibility for discriminating axial and transverse stress/strain components with Bragg sensors</i> Geert Luyckx <sup>a</sup> , Wim De Waele <sup>a</sup> , Wim Van Paepegem <sup>a</sup> , Joris Degrieck <sup>a</sup> , Johan Vlekken <sup>b</sup> and Karima Chah <sup>b</sup> <sup>a</sup> Dept. of Mechanical Construction and Production, Ghent University <sup>b</sup> FOS&S (Fiber Optic Sensors and Sensing Systems), Ciplastraat 14, 2440 Geel
15u55 – 16u15	<i>Heterogeneous deformation fields for parameter identification using Digital Image Correlation</i> D. Lecompte <sup>*a</sup> , A. Smits <sup>b</sup> , H. Sol <sup>b</sup> , J. Vantomme <sup>a</sup> and D. Van Hemelrijck <sup>b</sup> <sup>a</sup> Department of materials and construction, Royal military Academy, Belgium <sup>b</sup> Mechanics of materials and constructions, Vrije Universiteit Brussel, Belgium
16u15 – 16u35	<i>Study of the disturbance influences on optical coordinate measuring machines</i> P.-J. Corthouts <sup>a*</sup> , N. Van Gestel <sup>a</sup> , P. Bleys <sup>a,b</sup> and J.-P. Kruth <sup>a</sup> <sup>a</sup> Dept. of Mechanical Engineering, Division Production engineering, Machine design and Automation, K.U.Leuven, Celestijnenlaan 300 B, 3001 Heverlee <sup>b</sup> WTCM-CRIF, Celestijnenlaan 300 C, 3001 Heverlee
16u35	Closing session

## REGISTRATION FORM

*Please return this form by mail, fax or e-mail (Word-template in attachment) before 15<sup>th</sup> October 2005 to:*

*Wim VAN PAEPEGEM  
Universiteit Gent  
Dept. of Mechanical Construction and Production  
Sint-Pietersnieuwstraat 41  
B-9000 Gent  
Belgium  
Tel: +32-(0)9-264.42.07  
Fax: +32-(0)9-264.35.87  
E-mail: [Wim.VanPaepegem@UGent.be](mailto:Wim.VanPaepegem@UGent.be)  
<http://www.optimess.vub.ac.be>*

Title: .....

Last name: .....

First name: .....

Company/University: .....

Number of attending people in the group: .....

Address: .....

.....

City: .....

Postal code: .....

Country: .....

Phone: .....

Fax: .....

E-mail: .....

Please cross one or more entries :

- I am planning to attend the workshop
- I would like to present a paper. Abstracts should be faxed or e-mailed to [Wim.VanPaepegem@UGent.be](mailto:Wim.VanPaepegem@UGent.be) no later than 26<sup>th</sup> September 2005.

## Conference Centre "Het Pand"

### Address:

Conference Centre "Het Pand"  
Universiteit Gent  
Onderbergen 1  
B-9000 Gent  
Belgium  
Tel. reception desk: +32-(0)9-264.83.05

### Travel directions

#### By airplane

At Brussels Airport, take the train to *Brussel Noord* (about 15 minutes) and change for *Gent Sint-Pieters* (about 50 minutes). Proceed as mentioned below.

#### By train

From the railway station *Gent Sint-Pieters*, it is a 20 minutes walk to the *Onderbergen* street. You can also take the tram line 1 or 4 to the tram stop *Korenmarkt* (see yellow placeholder on the access map below). From that market square, it is about a 5 minutes walk to *Het Pand*.

#### By car

- *Coming from the motorway E40 (Brussel-Gent-Oostende):*  
On the E40, take exit *Gent*. After the short bend, hold the left side and follow the direction indicated as *Gent, B 401*. You drive up a bridge and when you crossed the bridge, some traffic lanes are added at your right side

*Coming from Antwerp (Antwerpen) via the motorway E17 (Antwerpen-Gent-Kortrijk):*  
Take exit *Gent-centrum*

*Coming from Kortrijk via the motorway E17 (Antwerpen-Gent-Kortrijk):*  
Take exit *B 401 Gent*

- next you will see the traffic directions:



- you choose the left direction *Gent-Centrum*, which is the traffic lane that goes over the bridge. You continue straight ahead until you arrive at the *Woodrow Wilson* square (indicated on the access map below). From that point on, follow the sign posts **Parkeerroute** (Parking-route) in the direction of the parking P7 *Sint-Michielsparking* which is at 50 meters away from *Het Pand* (see the black dotted car route on the access map below).



Access map Conference Centre "Het Pand"

