

**PRESENTATION and WORKSHOP on  
PIV APPLICATION to APPLIANCES  
PIVNET-2 European thematic Network  
task 5.3**

Organized by

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*Department of Mechanics, University of Ancona, Italy*

under the supervision of

PIVNet2 Co-ordinator, **Dr. Jürgen Kompenhans**  
*DLR, Goettingen, Germany*  
Workpackage Manager, **Prof. M.L. Riethmuller**  
*VKI, Rhode-Saint-Genèse, Belgium*

The **Presentation and Workshop** on the application of the **Particle Image Velocimetry technique (PIV)** to appliances is among the activities planned within the Thematic Network **PIVNet2** for 2002/2003. The performances and efficiency of most appliances, in fact, depend on fluid dynamic phenomena; experimental analyses at prototype stage can effectively influence product design and are a valuable tool for optimising CFD design. The main aim of the event is to illustrate the possible applications of PIV to analyse and improve the performances of appliances in general and to present such technique as a possible tool for numerical model validations. Moreover the event offers the opportunity to be introduced to the PIV technique as well as to confront different experiences of those already performing fluid dynamic analyses by PIV or other techniques and CFD simulations. The **Program** includes an **introductory lecture** on PIV application to industrial problems given by Prof. M.L.Riethmuller from Von Karman Institute, Belgium, followed by **paper presentations** by attendees, a **round-table discussion** and a **laboratory demonstration**.

**TARGET GROUP**

Researchers and R&D engineers in the field of appliances and experts in Industrial Fluid Dynamics.

**INVITED LECTURE**

An invited lecture will be given by Prof. M.L. Riethmuller, VKI, Belgium, to introduce to PIV technique.

**LABORATORY DEMONSTRATIONS**

A laboratory demonstration is planned to offer participants the opportunity to take part in tests effected on appliances using PIV strumentation. Additional information can be obtained by returning the Expression of Interest Form.

**APPLICATION AREAS**

The applications below are given as guidance:

**Household appliances – Workplace appliances**

Cooktops	Ovens	Range hoods
Vacuums	Refrigerators	Air conditioners
Dishwashers	Washing machines	Microwaves
Lamps	Boilers	Ice-cream/food display cabinets

**Small appliances – Appliances for personal care**

Toasters	Coffee machines	Hairdryers
Irons	Blenders	etc.

**CALL for CONTRIBUTIONS**

Contributions are expected from appliances manufacturers, researchers in the field of appliances, manufacturers of PIV equipment, consulting firms, etc. Abstracts (about 500 words plus supporting figures) must be sent to the Organising Secretariat together with the Expression of Interest Form by **8th March 2003** to:

[tomasini@mehp1.unian.it](mailto:tomasini@mehp1.unian.it)

Full length papers must be sent to the Organising Secretariat by **25th May 2003**.

**EXPRESSIONS of INTEREST**

People interested in attending the Presentation and Workshop are kindly requested to return the Expression of Interest Form by **8th March 2003**.

**ROUND TABLE DISCUSSION**

A Round Table Discussion is organised in order to offer participants the opportunity to exchange know-how and experiences and to point out possible problems related to the development and use of appliances in the fluid dynamic field. The aim is to bring together experienced actors in PIV with researchers and engineers who are interested in evaluating the potential of PIV for their own problems.

**REGISTRATION FEE**

Registration is FREE for PIVNet2 partners. Non PIVNet2 partners will contribute to the organising costs by paying a fee of 50,00 euro, which includes lunch, coffee breaks, dinner and proceedings.

**PROGRAM**

- Introduction to PIV technique; problems in industrial applications - by Prof. M.L.Riethmuller;
- Paper presentations;
- Round table discussions;
- Laboratory demonstrations of PIV.

Detailed and update information on the Program, Registration etc. will be available online at:

[www.dipmec.unian.it/misure/index\\_en.html](http://www.dipmec.unian.it/misure/index_en.html)

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Ancona, 25 - 26 June 2003

**EXPRESSION of INTEREST FORM**

Please, return this form to:

**Organising Secretariat**

c/o Department of Mechanics, Ancona University  
Via Breccie Bianche, I- 60131 Ancona, Italia  
Fax: +39 071 2204813  
e-mail: [tomasini@mehp1.unian.it](mailto:tomasini@mehp1.unian.it)

Title \_\_\_\_\_  
First Name \_\_\_\_\_  
Surname \_\_\_\_\_  
Company \_\_\_\_\_  
Section \_\_\_\_\_  
Address \_\_\_\_\_  
Post code/ City \_\_\_\_\_  
Country \_\_\_\_\_  
Telephone \_\_\_\_\_  
Fax \_\_\_\_\_  
E-mail \_\_\_\_\_

**Cross one or more entries:**

- I am interested in the Presentation and Workshop
- I am a PIVNet2 partner
- I am not a PIVNet2 partner
- I would like to present a paper

Paper title \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_ Signature \_\_\_\_\_

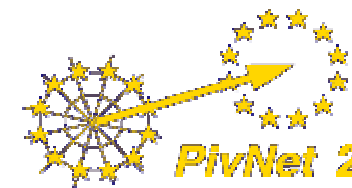
## GENERAL

PivNet 2 is a Thematic Network funded by EC. PivNet 2 is composed of 38 partners originating from industry, research organizations and universities. Many of them participate in European research programs like GROWTH etc. Industrial partners originate from both the PIV users and PIV manufacturers sides. They come from 14 different European countries and among the 38, 13 are industrials and 8 are large research organizations, while 6 partners are small enterprises. The main fields already concerned in the network are aeronautics, turbomachinery, and the naval field. Beside the primary PivNet consortium, another 50 teams participate in an interest group (ERCOFTAC SIG 32) and this is also taken into account in the net structure. PivNet 2 is a follow up of the successful PivNet thematic network (1997 – 2002). PivNet 2 starts in May 2002 and will run for 4 years.

## VENUE

The Presentation and Workshop will be hosted by the Faculty of Engineering of Ancona, a modern university building among the best in Europe.

Ancona is located in the centre of the Italian East coast, on the Adriatic sea, close to many Italian cities, such as Venice to the North, Florence to the West, Rome to the South- West, all within 300 Km distance. It can be reached in many different ways: by direct flight connections from Rome, Milan, Munich, London, Paris, Barcellona, Bucarest, Moscow; by train from Rome, Bari and Bologna; by ship from Albania, Croatia, Greece, Turkey.



## *First Announcement*

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task 5.3**

***25 - 26 June 2003***

***Faculty of Engineering***

***Ancona, Italy***



### ***Organising Secretariat***

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