

## PRESENTATION

Since its very first edition in October 1994 the AIVELA Conference on Vibration Measurements by Laser Techniques has established itself as the international forum where research ideas and technological innovation on Laser Vibrometry were presented and exchanged. Ancona, an ancient and fascinating Italian town situated on the Adriatic coast, became the biennial destination of the international laser vibrometry community, hosted by AIVELA at the premises of the local university (today Università Politecnica delle Marche).

The event was initially focused on Vibration Measurements by Laser Techniques and it immediately met large consensus among the International Research Community. In 2010 the Scientific Committee decided to widen the topics of the event by including also other noncontact techniques and the name of the event was changed to International Conference on Vibration Measurements by Laser and Noncontact Techniques.

The Conference aims at creating an active and stimulating forum where current research results and technical advances can be exchanged and the development of new systems for laboratory use, field testing and industrial application can be promoted. For this reason, experts in vibration and acoustics, manufacturers and authorities in the field of optical and non-invasive instrumentation and industrial users of such measurement devices have come from all over the world to present their activities and innovative approaches to vibration measurements.

## TOPICS

Papers are sought on every aspect of Vibration Measurements by Laser and Noncontact Techniques; the following list of topics is given as guidance:

### MEASUREMENT TECHNIQUES

LASER DOPPLER VIBROMETRY  
FULL FIELD INTERFEROMETRIC TECHNIQUES  
HOLOGRAPHIC TECHNIQUES  
ELECTRONIC SPECKLE PATTERN  
INTERFEROMETRY (ESPI)  
SHEAROGRAPHY  
SPECKLE TECHNIQUES  
FIBER BRAGG GRATING (FBG)  
VISION BASED TECHNIQUES  
OPTICAL SENSORS  
RADAR LASER  
MICROWAVE INTERFEROMETRY  
ULTRASONIC TECHNIQUES  
THERMOELASTICITY  
PHOTOELASTICITY

SIGNAL PROCESSING TECHNIQUES  
MICROSCOPIC LASER-DOPPLER VIBROMETRY  
MULTI-CHANNEL LDV  
NEW COMPONENTS FOR LDV  
PHOTONICS INTEGRATED CIRCUITS FOR LDV  
TECHNIQUES TO AVOID SPECKLE EFFECTS  
PARAMETER IDENTIFICATION FROM LDV-DATA (LDV SPECTROSCOPY)  
VIBRATION DETECTION IN OPTICAL COHERENCE TOMOGRAPHY  
TECHNICAL SOLUTIONS FOR SUB-FEMTOMETER LDV

### APPLICATION AREAS

ACOUSTICS  
ACTIVE AND PASSIVE NOISE & VIBRATION CONTROL  
VIBRO-ACOUSTICS AND NOISE, TESTING, NOISE  
VIBRATION HARSHNESS NVH AND CONTROL  
MODAL ANALYSIS  
METROLOGY, CALIBRATION AND STANDARDS  
NON DESTRUCTIVE TESTING AND DAMAGE DETECTION  
INDUSTRIAL DIAGNOSTICS AND QUALITY CONTROL  
CIVIL STRUCTURES AND INFRASTRUCTURES  
LASERS IN ART CONSERVATION  
LASER MEASUREMENTS IN MICROSYSTEMS & NANO TECHNOLOGIES  
TRANSPORT: NOISE VIBRATION HARSHNESS NVH  
COMFORT SAFETY  
SECURITY  
ROTATING MACHINERY  
VULCANOLOGY, HEARTHQUAKE ENGINEERING  
NOISE & VIBRATION IN AGRICULTURE  
FOOD PROCESSING  
INDUSTRIAL PROCESSING MONITORING AND CONTROL  
ELECTROMOBILITY  
GRAVITATIONAL WAVE DETECTION  
CAVITY OPTOMECHANICS

### LANGUAGE

The official language of the Conference is English.

### CALL for PAPERS

Extended abstracts on the topics of the conference must be sent to the Conference Secretariat not later than **24<sup>th</sup> April 2023**. Abstracts should include:

1. Title of paper;
2. Full names of all Authors (the name of the Presenting Author must be underlined) and Affiliation;
3. Text (about 500 words plus supporting figures).

Abstracts must be sent by e-mail to: [aivela@univpm.it](mailto:aivela@univpm.it).  
Authors will be notified their abstract acceptance and given proper instructions for presentation by 29<sup>th</sup> April 2023.

## IMPORTANT DEADLINES

Abstract submission

**24 April 2023**

Abstract acceptance

**29 April 2023**

Early registration (discounted fee)

**5 May 2023**

## PROCEEDINGS

The Conference proceedings will be published in electronic format after the event by an internationally renowned Publishing House and indexed in the leading databases of scientific & engineering literature, including SCOPUS, ISI Web of Science, etc. Accepted authors will be given details and instructions.

## INVITED LECTURES

Keynote and Invited Lectures will be delivered by leading personalities in the field of vibration measurements by laser and non-contact techniques.

## TUTORIALS

The Conference Programme will also include Tutorials held by leading instrumentation manufacturers.

## EXHIBITION

An exhibition is planned to enable participating organisations to bring their products directly to the attention of potential customers. Leading manufacturers of laser vibrometer systems, non-contact instrumentation and systems for vibro-acoustic testing will exhibit. Additional information can be obtained by returning the Pre-Registration Form.

## SHORT COURSE

A one-day tutorial course will be held the day before the Conference to provide the fundamentals of vibration measurements by optical techniques. The course will include theoretical lectures in the morning and hands-on lab sessions in the afternoon.

## VENUE

The event will be held in Ancona, a fascinating Dorian town on the Adriatic coast in central Italy, surrounded by the breathtaking scenery of the Conero Riviera.

## CONTACT INFORMATION

For information, contact:

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<https://www.aivela.org>

15<sup>th</sup> International Conference on  
**VIBRATION MEASUREMENTS**  
 by LASER and NONCONTACT TECHNIQUES  
 & SHORT COURSE

**Pre-registration Form**

Please, return to:

A.I.VE.LA. Conference Secretariat

[aivela@univpm.it](mailto:aivela@univpm.it)

Title(Mr, Ms, Dr.) \_\_\_\_\_  
 First Name \_\_\_\_\_  
 Surname \_\_\_\_\_  
 Company \_\_\_\_\_  
 Section \_\_\_\_\_  
 Address \_\_\_\_\_  
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 Telephone \_\_\_\_\_  
 Fax \_\_\_\_\_  
 E-mail \_\_\_\_\_

**Cross one or more entries:**

- I am interested in the Conference
- I am interested in the Short Course
- I am interested in exhibiting products and would like to have information on Exhibition facilities and fees
- I would like to present a paper

*Subject or title of the paper*

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*Suggested session*

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

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**Call for papers**  
**15th Intl CONFERENCE on**  
**VIBRATION MEASUREMENTS**  
**BY LASER AND NONCONTACT**  
**TECHNIQUES**  
**& SHORT COURSE**



**Ancona, Italy**

**20<sup>th</sup> – 23<sup>rd</sup> June 2023**

Organised in collaboration with:



and the support of:



[https://www.aivela.org/15th\\_conference/](https://www.aivela.org/15th_conference/)