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ORGANISING COMMITTEE

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Co- Chair: Dr. P. Gaudio, University of Rome Tor Vergata

Co- Chair: Ing. A. Malizia, University of Rome Tor Vergata

MEETING VENUE

Facoltà di Ingegneria – Aula Archimede, Edificio Didattica, Università di Roma Tor Vergata, Via del Politecnico 1, 00133 Roma <http://ing.uniroma2.it/>



PROCEEDINGS

The camera-ready copy of the papers will be formally published after the Meeting in electronic format under an ISBN reference and included in SCOPUS. Outstanding papers will be proposed for publication in a special issue of a relevant journal.

EXHIBITION

An exhibition is planned to enable participating organisations to bring their products directly to the attention of a selected audience. Exhibitors also have the opportunity to present their corporate image and products within a special dedicated session.

For information on accommodation facilities visit the event website at: <http://www.aivela.org>

REGISTRATION FEES

- ◇ Regular: 320,00 €
- ◇ Student: 200,00 €
- ◇ Exhibitor: 500,00 €

the participation fee includes a copy of the proceedings, coffee breaks, the lunch, the social dinner and membership to AIVELA for 2014.



A.I.VE.LA.

is pleased to announce the

XXII NATIONAL MEETING & EXHIBITION

Rome, 15-16 December 2014

FINAL PROGRAMME

Faculty of Engineering
University of Rome Tor Vergata

Organised in collaboration with

	Università di Roma Tor Vergata INTERNATIONAL CBRNe MASTER COURSES Chemical, Biological, Radiological, Nuclear and explosive Department of Industrial Engineering and School of Medicine and Surgery
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FINAL PROGRAMME

MONDAY, 15th DECEMBER

14.00 **REGISTRATION**

14.45 **WELCOME**

15.00 **SESSION 1: LASER DOPPLER VIBROMETRY**

◆ “Wavelet Processing of Continuous Scanning Laser Doppler Vibrometry data in Non-Destructive Testing”, P. Chiariotti, G.M. Revel, M.Martarelli, *Polytechnic Univ. of Marches*

◆ “Non-contact laser techniques: from industry to medical applications”, G. Giuliani, M. Benedetti, G. Capelli, *University of Pavia*

◆ “Evaluation of Heart Rate Variability by means of Laser Doppler Vibrometry measurements”, G. Cosoli, L. Casacanditella, E. P. Tomasini, L. Scalise, *Polytechnic Univ. of Marches*

16.00 **COFFEE BREAK**

16.20 **SESSION 2: FLOW, SPRAY, FLAME CHARACTERISATION I**

◆ “Turbulent consumption speed and local dilatation rate measurements in a premixed bunsen jet”, G. Troiani, F. Battista, F. Picano, C.M. Casciola, *ENEA C.R. Casaccia*

◆ “Schlieren Characterization of a Laval Nozzle Operating at Off-Design Conditions”, R. Cheli, M. Carmine, A. Spinelli, F. Cozzì, A. Guardone, *Polytechnic University of Milan*

◆ “PIV and PDA investigations on the Spray Structure of Gasoline and n-Butanol fuel injected by a Multi-hole Injector for DISI Engine”, L. Marchitto, G. Valentino, S.S. Merola, C. Tornatore, *CNR Motor Institute*

◆ “Characterization of Combustion Phenomena by Wavelet Analysis of Infrared Images”, C. Allouis, A. Amoresano, G. Langella, V. Niola, G. Quaremba, *University of Naples ‘Federico II’*

◆ “Acoustic-Heat Release Coupling in a Trapped Vortex Combustor”, T. Pagliaroli, R. Camussi, A. Di Marco, S. Panerai, *Roma Tre University*

18.00 **SESSION 3: NON CONTACT TECHNIQUES FOR STRUCTURAL CHARACTERISATION**

◆ “Photogrammetric detection technique for rotor blades structural characterization”, C. Enei, G. Bernardini, J. Serafini, L. Mattioni, M. Gennaretti, C. Ficuciello, V. Vezzari, *Roma Tre University*

◆ “A new measurement and testing procedure based on thermoelasticity for motorcycle send-arrester development”, M. Becchetti, R. Marsili, G. L. Rossi, *University of Perugia*

18.40 **SESSION 4: OPTICAL AND VISION SYSTEMS APPLICATION TO ENVIRONMENTAL MEASUREMENTS**

◆ “First prototype of a Lidar-Dial system for the automatic detection of harmful and polluting substances”, P. Gaudio, M. Gelfusa, A. Malizja, M. Richetta, C. Bellecci, *University of Rome Tor Vergata*

◆ “Application of VIA technique to study hyper concentrated flows : a study case”, D. Termini, *University of Palermo*

19.20 **END OF MEETING DAY 1**

20.30 Departure for **DINNER AT OSTERIA RISTORANTE ZARAZA’, FRASCATI**

TUESDAY, 16th DECEMBER

08.40 **SESSION 5: NON DESTRUCTIVE TESTING**

◆ “Infrared thermography to evaluate impact damaging of thermoplastic composites”, S. Boccardi, C. Meola, G.M. Carlomagno, G. Simeoli, P. Russo, *University of Naples ‘Federico II’*

◆ “A simple and accurate solution based on a laser sheet system for position and size on line monitoring of weldings”, G. D’Emilia, D. Di Gasbarro, E. Natale, *University of Aquila*

◆ “Infrared thermography and ultrasonics to evaluate CFRP for aeronautical applications”, S. Boccardi, C. Meola, G.M. Carlomagno, N.D. Boffa, F. Ricci, L. Maio, *University of Naples ‘Federico II’*

09.40 **SESSION 6: OPTICAL AND VISION SYSTEMS FOR GEOMETRICAL RECONSTRUCTION AND TRACKING**

◆ “Characterization of a 2-D Laser Scanner for outdoor wide range measurement”, E. Canciani, R. Sala, A. Vandone, *Politecnico di Milano*

◆ “The Importance of Camera Calibration Correction and Distortion Correction to Obtain Measurements with Video Surveillance Systems”, C. Cattaneo, G. Mainetti, R. Sala, *Politecnico di Milano*

◆ “A non-contact optics technique for vehicle tracking along bounded trajectories”, S. Giancola, H. Giberti, R. Sala, M. Tarabini, F. Cheli, *Politecnico di Milano*

10.40 **COFFEE BREAK**

11.00 **MANUFACTURERS’ PRESENTATIONS**

11.30 **SESSION 7: FLOW, SPRAY, FLAME CHARACTERISATION II**

◆ “Using a high speed camera for free surface flow profile reconstruction”, G. Viccione, M. Genovese, F. Rossi, *University of Salerno*

◆ “Numerical and experimental investigation of the performance of a car prototype for the Shell Eco Marathon”, F. Arpino, A. Frattolillo, F. Iannetta, M. Scungio, *University of Cassino*

12.10 **MEMBERS’ GENERAL ASSEMBLY**

13.30 **LUNCH**

14.30 **END OF MEETING**

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**REGISTRATION, ACCOMMODATION
& GENERAL INFO**

All info on the event, including the registration form, directions to the venue and accommodation may be found online at: <http://www.aivela.org>