Euromech contact person:

Prof. Pedro Camanho (Portugal)

Scientific Committee

Holm Altenbach (Germany)
Bala Balachandran (USA)
René de Borst (The Netherlands)
Matthew Cartmell (United Kingdom)
Paulo Goncalves (Brazil)
Daniel Inman (USA)
Claude-Henri Lamarque (France)
Stefano Lenci (Italy) – Chair
Giuseppe Rega (Italy)
Pedro Ribeiro (Portugal)
Tomasz Sadowski (Poland)
Subash Sinha (USA)
Jerzy Warminski (Poland) – Co-chair
Marian Wiercigroch (United Kingdom)

Local Organizing Committee:

Stefano Lenci
Lucio Demeio
Giovanni Lancioni
Michele Serpilli

Venue:

The Colloquium will be held in Senigallia (Ancona), Italy, a nice sea-side small city, close to Ancona, Italy, well-known for its beaches and for its cultural heritage.
For more information please see the website http://www.comune.senigallia.an.it/senigalliaTurismoEn/index.html, where you can also find information on transportations.

Senigallia can be accessed by plane (Ancona airport), train (from Rome, Milan, Bologne, etc.), bus and car.

The venue is the spectacular "Rotonda a Mare", a picturesque building *on* the sea.

EUROPEAN MECHANICS SOCIETY

Euromech Colloquium n. 541

New Advances in the Nonlinear Dynamics and Control of Composites for Smart Engineering Design

Senigallia (Ancona) – Italy

3-6 June 2013

First announcement

www.dipmat.univpm.it/euromech541

Chair: *Stefano Lenci*
Polytechnic University of Marche
Email: lenci@univpm.it

Co-Chair: *Jerzy Warminski*
Lublin University of Technology
Email: j.warminski@pollub.pl

Scopes:

The Colloquium is aimed at constituting an event to join scientists working on linear and, mainly, on nonlinear dynamics, chaos and control of systems and structures made of composite materials for smart applications.

The first goal of the proposed Colloquium is that of gathering people working on the most recent modeling, theoretical, analytical, numerical, experimental and control achievements in the nonlinear dynamics of composites.

The second aim is that of pushing the transfer of theoretical results towards innovative applications of composites, in any field of science and engineering, in order to reduce the gap between theory and practice.

Conference themes:

Within the general area of the nonlinear dynamics of composites, specific topics include, but are not limited to:

- *Modeling of the dynamics of composite materials and structures*
- *Vibrations problems*
- *Nonlinear dynamics and chaos*
- *Impact loading*
- *Inverse problems*
- *Nonlinear dynamics and vibrations of composites with active elements*
- *Control of the dynamics of composite materials and structures*
- *Vibration suppression and control with Shape Memory Alloys (SMA) or piezoelectric transducer (PZT)*
- *Multiscale approaches*
- *Analytical (nonlinear normal modes, multiple scale, etc.) and numerical (POD, etc.) techniques*
- *Experimental dynamics and techniques*
- *Multidisciplinary and multiphysics approaches for composites*
- *Smart applications of composite*
- *Signal processing and structural health monitoring*
- *High speed cutting of composite materials*
- *Dynamical response of functionally graded (FGM) and sandwich materials*
- *Nonlinear dynamics in fabrication processes*
- *Optimization*
- *Energy harvesting by composites structures and materials*
- *Applications of composites in robotics*

Sponsorships:

European Mechanics Society (Euromech)
www.euromech.org

Polytechnic University of Marche, Ancona, Italy
www.univpm.it

City of Senigallia, (Ancona), Italy
http://www.comune.senigallia.an.it/senigalliaTurismoEn/index.html

The Conference is organized within the Framework of the European Research Project "Centre of excellence for modern composites in applied aerospace and surface transport infrastructure", CEMCAST FP7-245479.
http://cemcast.pollub.pl/index