



NEWS

Italy Section

NEWS FROM THE ITALIAN SECTION OF ASME YEAR 1 – N^{ER} 2 – DECEMBER 2011

First event of the Italy Section in Genoa on October 2011 !

On October 20th and 21st, the ASME *Conference on “PED Requirements and ASME Code”* for pressure vessels and equipments design and construction was successfully held. More than 120 attendees were present to follow the four thematic sessions organised within the frame of the Conference.

A first Session was devoted to *PED and ASME CODE essential requirements about safety*. It was introduced by Francesco Alicino (ASME Italy Section Chair). A preliminary contribution was proposed by **Muzio Gola** (Professor at Politecnico di Torino, Italy) covering quality assurance in technical education. All participants were invited to submit their opinion about the skills required to the graduated engineer within their own field, by filling the form available at:

<http://www.asme.it/Contatti.html>
➤ MODULO (Functions.doc)
to be sent E-mail: webmaster@asme.it

Session chairman, Eugenio Brusa (ASME Italy Section Vice Chair) introduced then **Peter Hanmore** (delegate ASME) who proposed some clear criteria to use the ASME Code to meet the PED Essential Requirements. A final overview of PED

requirements for ASME Materials, PMA, Welding Procedures and Qualification, NDE Operators and CE Marking was proposed by **Fulvio Revello and Gabriele Noli** (Rina Services SpA, Italy).



Opening session

Session II was focused on *Process Equipment, i.e. on the comparison of Pressure Vessel Codes ASME Section VIII and EN13445*. It was introduced by Paolo Lista (ASME Italy Section Treasurer). Role of Standards in Quality Assurance management was discussed by **Alfredo Squarzone** (University of Genova, Italy) as delegate of the EUR-ACE European Network Committee. A survey on the codes used to design Pressure Equipments in Italy was briefly presented by **Matteo Cannerozzi** (Comitato Termotecnico Italiano). A longer speech was dedicated by **Robert Kauer** (TUV SÜD) to some critical

aspects on the comparison of ASME Code Sect. VIII and PED/EN 13445.



Peter Hanmore presents his contribution.



A view of the conference room.



Session on Nuclear plants

A second part of this session was devoted to show an example of industrial test case. Difficulties in applying simultaneously the ASME code and PED were discussed. So far design and fabrication of a pressurized reactor equipment for DR Plant according to ASME VIII Division 1 was proposed by Danieli

Officine Meccaniche SpA delegation, whose main delegate was **Christian Adami**.

At the end of this first session a technical round table with attendees open to questions and remarks was chaired by Muzio Gola and involved all the speakers.



President Alicino's closing message

A third Session on **Power and Process plants** was then chaired by Luca Gaetani (ASME Italy Section Secretary). Application of ASME and PED to pressure vessel and piping manufacturing was investigated by **David Morris** (Chair elected and Member of ASME Board, ASME UK & Ireland Section). A further contribution was proposed by **Michel Margat** (Hartford Steam Boiler Int'l GmbH) and focused the application of the Power Piping Code ASME B31.1 to meet the PED. **Fulvio Revello** (Rina Services SpA) spoke then about Requirements related to the Pressure Test of piping, point 3.2.2 of Annex 1 and extension of NDT and possible use of pneumatic test. An example of industrial test case related to the above topic was finally proposed by **Laura Vergani** (President of the Italian Society for Stress Analysis and professor at Politecnico di Milano, Italy). She spoke about the effect of Hydrogen and low temperature on the mechanical properties of pipeline steels. A round table was then chaired by Fulvio Revello to give suitable answers to attendees' questions, remarks and involved all the session speakers.

Fourth Session was entirely dedicated to **nuclear plants and components** designed according to the ASME Code and PED, where applicable. It was chaired by President Francesco Alicino. **Manfred Dilly**, (ASME)

introduced the ASME BPVC, Sect.III, Div.1, rules for the construction of nuclear facility components. As an example of nuclear technology industrial development based on the ASME Code and PED, **Sergio Orlandi** (Managing Director of Ansaldo Nucleare SpA, Genova, Italy) and **Flavio Magris** (Technical Director, Ansaldo Nucleare SpA, Genova, Italy) described the design of passive residual heat removal (PRHR) for AP 1000. **Guglielmo Lomonaco** (University of Genova) gave to the audience an overview on the generation-IV innovative reactors.



Magazzini del Cotone, Genova

As a final step of the Conference **Sergio Orlandi** chaired a very appreciated and interesting round table about the standards application, technical issues and suggestions associated to the recent *Fukushima nuclear accident*. This talk was exceptionally introduced by the CEO of Ansaldo Energia, **Giuseppe Zampini**, then contributed by **Paola Girdinio** (Dean of the Engineering Faculty, University of Genova), **Pietro Canepa** (University of Genova) and **President F. Alicino**. Location of the conference was **Palazzo Congressi, Magazzini del Cotone, Molo 8, Porto Antico**.

Proceedings of the Conference are collected on a CD which was distributed to all the attendees. Italy Section is currently taking action to get it purchasable by all whom are interested. Please see ASME Italy Section website:

<http://www.asme.it/Contatti.html>



ASME Italy Section is grateful to all *Sponsors* of the Conference who allowed these successful results. In particular it was highly appreciated the contribution of *Italian Region Liguria, City of Genova, Confindustria Genova, Ordine degli Ingegneri della Provincia di Genova, Politecnico di Torino and Università di Genova*. Special thanks to the main Sponsor, **Ansaldo Nucleare**, and additional Sponsors **Danieli** and **Rina**.

Cooperation among ASME Italy Section and Italian Associations

Fruitful cooperation with Italian Associations of Mechanical Engineering was started on 2011. Vice chair Eugenio Brusa attended as an ASME delegate the National Conference of **AIAS (Italian Association for Stress Analysis)** held in Palermo to chair a joint session AIAS-ASME dedicated to young scientists and engineers. During the conference it was selected and *awarded* by AIAS and ASME, a paper written by **Giorgio De Pasquale** and **Nicolò Zampieri** focused on the *Design of Electromechanical Vibration Energy Scavengers for Railways Systems*.



The AIAS – ASME award for young engineers 2011

Francesco Alicino attended the AIMETA (Italian Association of Theoretical and Applied Mechanics) Conference, in Bologna (13 September, 2011). A presentation of the ASME Italy Section was there proposed. Similarly a presentation of the Section was done at EYE (European Young Engineers) Conference held in Salerno, November 2010, NAFEMS (Bologna, May 2011), ASME courses held in Torino (Torino, June 2011). Moreover, President Alicino was invited to visit the Italian Institute of Technology (IIT) in Genova (April 2011). Preliminary contacts were established with AIPnD (Ital. Ass. NDT).

Section in...action

To excite the interest of Italian Members towards joint research and innovation projects to be developed within the frame of the ASME Italy section some main actions are promoted by the *Research Group on Mechatronics and Robotics* chaired by Emanuele Guglielmino (IIT Genova) and Eugenio Brusa (Politecnico di Torino). Three activities were started on 2011.

A higher course on “Current Topics in Finite Element Approaches to Design Mechanical and Mechatronic Systems” was proposed at Politecnico di Torino under the patronage of ASME Italy Section. It included two parts. A first one on nonlinear systems and innovative numerical solutions, presented by **prof. M. Gh. Munteanu** (University of Udine, Italy). A second one was dedicated to

FEM approaches to predict crack propagation and bifurcation in solids was proposed by **prof. Naman Recho**, EPF School and Univ. Blaise Pascal, France. A presentation of the ASME Italy Section was given to the PhD students coming from many countries and working at Politecnico di Torino. Hopefully it could be a chance to start a *Student Section*.



CORSO DI ECCELLENZA / EXCELLENCE COURSE

“Current Topics in Finite Element Approaches Applied to Mechanical and Mechatronic Systems”



Prof. Mircea Gheorghe Munteanu
Professor
Università degli Studi di Udine
Former Professor at University of Brasov, Romania

Prof. Naman Recho
Professor
ERMES / EPF
Ecoles d'Ingenieurs, Sceaux, France
LaMI, University Blaise Pascal, Clermont II, France
(ERASMUS Partner)

Course Coordinator:
Prof. Eugenio Brusa
Dipartimento di Meccanica
Dottorato di Ricerca in Meccanica
Coordinatore del Dottorato:
Prof. Luigi Garibaldi



Group will promote the attendance to the **21st International Workshop on Robotics in Alpe-Adria-Danube Region RAAD 2012, 10-13 September 2012**: Naples, Italy, organised by University of Naples “Federico II”. Moreover, a two days workshop on “*Intelligent Materials and Micro Electro Mechanical Systems in Italy*” is currently organised in cooperation with the MIMEMS Group of AIAS, to be held in Scilla (Calabria), on May 31st and June 1st 2012. To learn more about the ASME Italian Section and to give your own suggestions please visit:

www.asme.it