



The World Organisation for NDT

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Volume 8 Issue No 5

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CHAIRMAN'S MESSAGE

Meetings result in exciting developments

After my summer holidays, which I spent with my wife Kay in the Western Isles off the North West coast of Scotland, the autumn is proving to be a busy time for my ICNDT activities, involving three overseas trips and some exciting developments, mostly but not wholly relating to personnel certification. I attended three meetings in Vienna, a conference in Berlin and will soon head for the ASNT Fall Conference and an ICNDT PGP meeting in Houston, Texas.

Firstly, there was a meeting of our ICNDT Working Group 1 on Qualification and Certification of NDT personnel, with attendees from all around the world (Germany, Brazil, Spain, Austria, Singapore, Japan, Russia, France, Australia, Canada and the UK). WG1 is working out the details of two new potential ICNDT activities and seeking approval for implementation of its plans from the ICNDT Policy and General Purposes Committee:

1. Develop a global Multilateral Recognition Agreement between Third-Party Certification Bodies. This will supercede the existing MRAs in Europe and Asia-Pacific regions. Already in Europe, through the European (EFNDT) Mutual Recognition Agreement, signed October 1994, 29 countries' NDT societies recognise 18 third-party certification schemes.

The objective is to ensure that NDT certificates gained under any one of the recognised certification schemes recognised by ICNDT will be accepted in all of the countries which are signatories to the Agreement.

2. Develop an ICNDT Approval Scheme for certification bodies to complement accreditation.

The group has worked very hard to prepare these programmes and I was much impressed by the detailed work being carried forward.

Secondly, a group of ICNDT Executive Committee members met with four senior representatives of the International Atomic Energy Agency (IAEA) in Vienna. The IAEA has a long association with ICNDT and for many years has supported the development of NDT in the less developed regions and countries. Many national NDT societies and training and certification schemes have been established with the assistance of the IAEA, which is continuing to work on projects in Africa, South America and Asia. The Agency officers are reviewing how to handle their NDT activities in the future and were very interested to discuss how they can work with ICNDT. We were pleased to have the chance to thank the IAEA for their support in the past and to offer ICNDT's cooperation in the future.

Thirdly, also in Vienna, I represented ICNDT at the Joint Working Group of ISO TC135 and CEN TC138, which is looking to the harmonisation of EN 473 and ISO 9712 into a single global standard. ICNDT held a seminar at the world conference in Shanghai to promote this harmonisation and the Joint Working Group was announced there by the two chairs, Dr Hatano and Mr Patrick Fallovey. Both meetings of the group, in Madrid and Vienna, have been very successful. We congratulate the co-chairs and members on their dedication and progress and can be increasingly confident that a single standard will be the result.

In Berlin, I attended the 8th International Conference on NDE in Relation to Structural Integrity for Nuclear and Pressurised Components, 29 September - 1 October 2010, organised by the DGZfP (German NDT Society), with support from the EU, UK, Japan and USA. The conference was very well organised. I presented a paper entitled 'NDT Personnel Certification – Recommendations of ICNDT and EFNDT and their Relevance to the Nuclear Industry'.

Next stop is Houston, Texas. I'm looking forward to telling people that I live in the original Houston, a village in Renfrewshire, Scotland, which was the birthplace of the forebears of Sam Houston, after whom the Texas metropolis is named.

Dr J M Farley
Chairman, ICNDT





ICNDT Journal



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Editorial contributions are welcomed.

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The next ICNDT Journal will be published in March 2011

Material should be sent to Sharon Bond, email: s.bond@cinde.ca by 31 January 2011

Future ICNDT Committee Meetings

Executive

Fri 3 Dec 2010: Teleconference

Fri 28 Jan 2011: Glasgow

Fri 4 Mar 2011: Teleconference

Apr 2012: at WCNDT, Durban, South Africa

General Assembly

Fri 28 Jan 2011: Teleconference

Apr 2012: at WCNDT, Durban, South Africa

PGP

Sat 1 Oct 2011: Cancún

Apr 2012: at WCNDT, Durban, South Africa

Working Group 1

Sun 2 Oct 2011: Cancún

Apr 2012: at WCNDT, Durban, South Africa

Harmonisation of EN 473/ISO 9712: successful meeting in Vienna

On 14 September, a joint meeting of ISO/TC135/WG3 and CEN/TC138 AHG9 took place at the Austrian Standards Institute in Vienna.

The aim of the meeting was to take a huge step forward in the harmonisation of European standard EN 473 with the international standard ISO 9712. In fact, it is proposed to use the Vienna agreement to replace these two standards with one because both standards, being identical in scope, differ only in detail. For many years it has not been possible to achieve a unique standard, despite the urgent need of industries to have such, and now there is a strong feeling that this must happen.

Now, as a result of the intensive preparation undertaken by both working groups, and especially the detailed proposal prepared by Patrick Fallouey (Chairman, CEN TC138), it became apparent that practically all problems could be solved. At the end of the meeting a draft of an identical ISO 9712/EN 473 was ready for submission to ISO Central Secretariat (CS). There was a clear consensus between both Technical Committees and a powerful sense of mutual cooperation. This represents a great success for the work many committee members have put in over a long period of time, and a huge advance for all parties involved in NDT personnel qualification and certification.

At the end of the meeting it was agreed to speed up the work by going directly to the draft international standard (DIS) stage, but despite this clear wish of the meeting the ISO Central Secretariat has insisted in sticking dogmatically to procedure and going the long way through all of the formal stages in the revision of a standard.

Despite the fact that there was some disappointment over ISO's insistence to adhere to the formal procedures and the time that this will take, all engaged parties were extremely satisfied with the positive outcome.

*Ralf Holstein
 German Society for NDT*



Several meetings took place in Vienna, revolving around the ISO/CEN discussions, among them a get together of ICNDT Working Group 1, the members of which are shown assembled outside the offices of TÜV Austria, headquarters of the Austrian Society for NDE, which kindly organised the activities Photo courtesy Gerhard Aufricht

The Unseen World of NDT

The British Institute of Non-Destructive Testing (BINDT) has launched its video – 'The Unseen World of NDT', now available on DVD, YouTube, on the BINDT website and via a link at www.icndt.org (ICNDT was a co-sponsor of the project).

Aimed primarily at young people, to encourage them to consider a career in NDT, the video also fulfils the important functions of raising the awareness of NDT in the public domain, focusing on why NDT is carried out and, at the same

time as educating and informing, is also entertaining.

The video follows the activities of a family as they prepare to go on holiday. Their lives are kept safe by NDT at each stage of their journey.

The main video is supplemented by other shorter films going into 12 different aspects and applications of the main theme.

Free copies of the DVD are available from BINDT on request. Email: cindy.bailey@bindt.org

Countdown to the 18th WCNDT

The organisation of the 18th World Conference on Non-destructive Testing (18th WCNDT) is proceeding at a rapid pace, and all indications are that it is going to be a roaring success.

The conference will be taking place in Durban, South Africa, between 16 and 20 April 2012. This is a very pleasant time of the year weather-wise and delegates can expect a great professional and sensual treat. The venue for the conference is the International Convention Centre in Durban, an ultra-modern facility with lecture theatres and exhibition floor space able to accommodate even the largest conventions. It is a short walk from the beach, where there is a variety of hotels and self-catering establishments to suit one's pocket.

A professional organisation, The Conference Company, is being used to handle the administrative details such as registrations, managing the database for abstracts etc, and they will also be able to make accommodation bookings for delegates at reduced rates that they are able to negotiate with the hotels.

The general area of the Convention Centre and beach-front has been considerably upgraded in recent years and has become an attractive tourist magnet. Durban is a natural gateway to many tourist attractions, such as game parks, coastal areas and the majestic Drakensberg. The city itself is a cosmopolitan place, projecting Zulu pride, western culture and a strong oriental influence.

The present plans for the conference structure call for a mid-morning invited talk of one hour on each day and contributed talks of 20 minutes in parallel sessions, and there will be poster sessions. A number of invited speakers have confirmed so far. There will be a website for online registration and abstract submission, going live in March 2011. The deadline for abstract submission is 15 October 2011 and notification of abstract acceptance by 15 November 2011; the preliminary programme will be available in January 2012. It is anticipated that there will be a large number of exhibitors of NDT equipment and services, to be accommodated in the extensive floor space of the Convention Centre.

The broad theme of the 18th WCNDT is: 'NDT in the Service of Society, in Safety Assurance, Quality Control and Condition Monitoring'. In specific terms, this translates into the following subject areas:

- General topics such as training and certification, regulation and standardisation.
- NDT applications in transport, civil structures, mining, power generation and the chemical, steel and wood pulp industries.
- Africa-specific NDT problems and applications. It is the intent to include a one-day session devoted to the AFRA 5th African NDT Conference.
- Materials' characterisation.
- Condition monitoring.
- R&D in electromagnetic, optical, radiographic, thermographic and ultrasonic NDT techniques.

Negotiations are underway with Drs Baldev Raj and Venkataraman from India regarding the running of a pre-conference workshop on Advanced Digital Imaging Techniques on the weekend prior to the conference, and a possible workshop on NDT for Regulators. We have had a local offer to run a practical workshop, which would be aimed at relative newcomers to the field. Offers from individuals or organisations to run mini-symposia on specific topics, to be accommodated within the programme of the conference, will be considered.

Technical tours to a number of industrial and other sites where NDT is featured are being planned and there will also be a social programme for delegates and accompanying persons.

Authors will be invited to submit electronic files of their papers for inclusion in the Conference Proceedings, which will be provided to the delegates at the conference on CD and be made available online. Information on the length and format of the papers will be posted on the conference website, and the manuscript submission deadline for inclusion on the CD will be 31 January 2012. An agreement is being signed with NDT.net for the online publication of the proceedings and production of the master CD to be replicated for the delegates.

Much effort is at present going into the marketing and promotion of the 18th WCNDT. The President, Manfred Johannes, Chairman, Hugh Neeson, and Chairman of the Marketing Committee, Butch Davies, have attended or will be attending a number of international conferences, including the Indian conference NDE-2010, and conducting a publicity campaign for the 18th WCNDT. The Marketing Committee is also energetically approaching a range of companies dealing in NDT supplies, NDT service providers and the users of NDT services for sponsorship and exhibiting. A lot of interest is being expressed and in the coming weeks concrete offers will materialise. The conference fees will be set in January 2011, by which time the financial position of the conference will be clearer.

A Section 21 (not-for-profit) company is being registered for administering the financial affairs of the conference, and a formal contract is being drawn up between ICNDT and the company, which is a legal requirement to allow certain foreign exchange transactions to take place.

Responsibility for running the 18th WCNDT is vested in the following committees:

- Local Organising Committee: Manfred Johannes (President), Hugh Neeson (Chairman), Robin Marshall (Admin Secretary).
- Finance Committee: Johan Gerber (Chairman), Ralph Davies.
- Marketing Committee: Butch Davies (Chairman), Claire Bowie (Admin Secretary), Marco Gonzales, Greg Williams.
- Technical Committee: Arthur Every (Chairman), Madeleine du Toit, Stephan Heyns, Manfred Johannes, Hugh Neeson, Philippe Rubbers, Bob Tait, Jasson Gryzagoridis, Dirk Findeis, Joe Amadi-Echendu.



The ultra-modern International Convention Centre in Durban, venue for the 18th World Conference on Non-Destructive Testing

AFRICA

A number of eminent NDT people from around the world are being invited to join the International Advisory Committee, and many have already accepted.

People have many different perceptions of Africa – like the blind feeling different parts of an elephant and trying to describe the animal. Some people have the impression that Africa is a continent of dysfunctional governments, famine and warfare. People who follow current economic and political developments more closely will be aware that for years now Africa has been expanding economically and has come through the recent economic downturn relatively unscathed, and is making steady, even dramatic, progress in democracy. Some people think of Africa as a place of spectacular wildlife and unspoilt nature, of pristine beaches and lofty mountains. And football fans think of Africa as the boisterous place where the recent World Cup was staged with such success. Come to the 18th WCNDT and you are sure to experience the last three Africas.

The conference website is <http://www.wcndt2012.org.za>

The conference is being run under the auspices of the South African Institute of NDT. Tel: +27 11 719 5717; Email: saint@saint.org.za; website: <http://www.saint.org.za>

Management: The Conference Company. Tel: +27 31 303 9852; email: deidre@confco.co.za

Arthur Every
arthur.every@wits.ac.za



Some people think of Africa as a place of spectacular wildlife and unspoilt nature, of pristine beaches and lofty mountains

Tunisia: Industrial strategy sets objectives to be achieved by 2016

Tunisia has adopted a new industrial strategy which sets medium-term objectives to be achieved by 2016. The main aim is to differentiate the 'Tunisian brand' from its competitors, principally by adding hubs and innovation features to its positioning as a location for 'back office' and 'industrial nearshore' activities for its mainly European Union partners.

Additionally, the Tunisian location is being integrated in a regional and global value chain by making improvements in logistics efficiency. Meanwhile, the promotion of better education and training aims to help increase value-added production.

These current initiatives are a continuation of the export-oriented economic model that Tunisia has adopted since the 1970s, but it was in 1995 that the country launched its national upgrading programme in order to increase the competitiveness of its enterprises and shape them for competing in international markets. By 2008, over 4000 companies had participated in the upgrading programme and by 2011 the figure should have reached 4800.

Projects funded in this way have helped increase the share of fully exporting industrial companies up to 45% in 2007. A special scheme of tax-free profits is available for companies producing at least 85% of their products for export. Industrial exports, excluding food, reported a fourfold increase on 1996, reaching €7 billion in revenue.

Seeking to take advantage of its geographical proximity and cultural legacy, Tunisia has progressively strengthened relations with the member states of the EU, which as a whole has today become its main industrial partner and customer, accounting for 80% of industrial exports. Since 1996, exports to EU member states have grown by an average of 10% per year.

This record of success has been achieved thanks to the country's substantial efforts to upgrade and enhance its education and vocational training, transport and logistics infrastructure, along with the creation of production platforms that meet international standards and the facilitation of trade.

Tunisia's entry into a free trade area with the EU in 2008 opened up new opportunities but also posed new challenges. Heavily relying on exports and foreign direct investment, the Tunisian economy has become more dependent on global developments. Faced with the emergence of countries offering lower production costs, a shift of gear proved essential.

A main goal is to see the value of exports reach \$17.5bn by 2016 and, in order to achieve this, three key areas of economic development have been identified:

- Upgrading traditional industrial sectors such as textiles, clothing, leather and footwear, agri-food, phosphates and building materials;
- Diversifying industry and promoting the emergence of new sectors, such as electronics, automobile and aeronautics (MEI), engineering plastics, pharmaceuticals and biotechnology, ICT, service centres and other industry-related services;
- Preparing the ground for the next wave of industries that will regenerate the economic fabric of the country by promoting the development of niche markets at the crossroads of several industrial sectors such as mechatronics.

The success of the strategy requires the implantation of large companies to lead the way and, to attract them to Tunisia, competitiveness poles are being created in four key sectors: textiles and clothing; mechanical and electrical industries (MEI); agri-foods; and ICT. By 2016, these sectors should comprise 1000 companies and generate 40,000 jobs in Tunisia. One recent example of a successful venture in this regard has been the creation of activity in the aeronautical sector, involving a group of sub-contractors and partners of the Airbus programme.

As well as these service-related industries, Tunisia is interested in developing trade, leisure and tourism and, by diversifying its economy, the country expects to reduce its exposure to the vagaries of the global markets.



18TH WCNDT

DURBAN · SOUTH AFRICA · 2012

World Conference on Non Destructive Testing

THEME

NDT IN SERVICE OF SOCIETY -
in safety assurance, quality
control and condition monitoring.

16 - 20 April 2012
International Convention
Centre, Durban,
South Africa



Contact Details:

Local Conference Secretariat
The Conference Company, South Africa
Tel: + 27 31 303 9852 Fax: + 27 31 303 9529
Nina Freysen-Pretorius / Deidre Hancke-Haysom
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Conference Website: www.wcndt2012.org.za

Mechanical and electrical industries

With their strong potential for increasing exports, mechanical and electrical industries (MEI) have doubled their production since 2003 to reach over €4.6bn in 2008, 54% of which was the electrical industry. During the period 2003-2008, the sector benefited from an average increase in investments of 15% per year, rising to 31% for the electrical and electronic industries.

Exports more than doubled to reach €3.5bn in 2008, with European customers remaining the principal market for Tunisia. The sector of aeronautical and automotive components grew dramatically over the last ten years, with exports increasing fivefold to reach €1bn in 2008. By 2016, MEI is expected to account for 46% of the country's exports, against 25% in 2006.

To achieve its ambitious targets, Tunisia is focusing on innovation, synergies through adopting a cross-sector approach and an 11.3% targeted annual rise in investment over the period 2006 and 2016.

Main opportunities in this sector include electrical, electronic, automotive and aeronautical components; mechatronics; metal construction and foundry.

Textiles, leather, clothing and footwear

As the country's first industrial employer, this traditional economic sector developed through outsourcing for European companies. Thanks to its adaptability to change, Tunisia has become the fifth largest supplier to the European markets.

Between 2002 and 2007, textiles and clothing exports grew by 4% per year on average, while exports of leather and shoes rose by 8%. Nearly 96% of exports are destined for the European markets.

Attracting over one fifth of total FDI, textiles and clothing have benefited from an average 27% annual increase in investment during the period 2005-2008. In the face of increased competition from Asia, Tunisia undertook a qualitative upgrading of its production, shifting towards designer wear, finishing and co-production. The aim is to increase exports by 5.1% per year by 2016. Business opportunities exist in the areas of: spinning, weaving and finishing; creation and design; the manufacture of small and medium series; technical textiles; leather and leather goods; and logistics.

Agriculture and agri-business

Agriculture remains the main activity in several of Tunisia's regions and contributes substantially to overall production (some 12% of GDP), jobs and balance of payments. Olive oil is a notable product and Tunisia is the second largest exporter in the world.

By 2016, the country aims to increase its food produce exports by a rate of at least 9% through the promotion of value-added production and by upgrading its distribution channels.

Opportunities in this sector range from conditioning of oils; fruit, vegetables and seafood; fish and shellfish farming; production of meals and frozen, biological and health products.

Business process outsourcing and ICT

This sector is seen as the spearhead of the country's economy and has strong development potential in local and global markets. In 2008, its contribution to GDP stood at around 8% and is expected to reach 13% by 2011 and 20% by 2016.

Exports in this sector are expected to increase from €31m in 2007 to €500m in 2016.

Tunisia is devoting public investment to improve and develop the sector, which is an important factor making for its expansion. In addition, the liberalisation of the telecommunications services has facilitated the entry of new players and has acted as a spur to the development of the sector.

To accelerate the spread of the digital economy, Tunisia has initially focused on the local market but relies on the expertise of international operators.

The growth of business process outsourcing (BPO) services parallels the development of ICT services. Opportunities for investors exist in the areas of networks of landline and mobile phones; related services; BPO; and nearshoring activities.

Chemical and plastics industry

This until recently undeveloped sector has been attracting the attention of public and private sector investors. Over the period 2003-2007, the sector received substantial and increasing investment, which has enabled the emergence and establishment of the industry. By 2008, the sector included 241 firms with 10 or more employees, of which 39 were fully export oriented and 156 companies with foreign partners.

Meanwhile, the plastics industry had 250 firms with 10 or more people, including 62 fully export oriented and 81 with foreign participation. Given the sector's export potential and close links with other strategic sectors, it is anticipated that the chemicals and plastics sectors could become engines of growth in the Tunisian economy over the next decade.

Opportunities in the sector exist in the areas of engineering plastics such as luxury packaging, construction, agriculture; plates and tubes; medicines such as generics and vaccines; soaps and cleaning products.

Tourism sector

Tourism is the main source of foreign exchange for Tunisia, generating 6.5% of GDP and employing 12% of the workforce. In 2008, some seven million foreign tourists visited the country, representing a rise of 5% on the previous year. In recent years, the country has been trying to restructure the sector by rebalancing coastal and inland tourism through encouraging investment in priority areas. Opportunities for investors exist in a number of areas, such as planning and development of resorts, 'green tourism', seawater therapy and medical tourism.

The data for this report is obtained from the Mediterranean Investment Map produced by the European Union agency, the ANIMA Investment Network.

Countdown to the 18th WCNDT in Durban

Important dates for your diary

Website for online registration and abstract submission: live March 2011

Deadline for abstract submission: 15 October 2011

Notification of abstract acceptance: 15 November 2011

Preliminary programme: available January 2012

Deadline for full manuscripts: 31 January 2012

Conference: 16-20 April 2012

ASIA-PACIFIC

News from the Malaysian Society for NDT

International Conference for Experimental Mechanics 2010 (ICEM2010)*Legend Hotel, 29 November to 1 December 2010*

Members of the Steering Committee of ICEM 2010 wish to thank all scientists, engineers and technologists who have given a tremendous response to our call for participation in this event. At the closing date we received more than 240 abstract submissions and around 300 participants from 25 countries. We also began to receive applications for participation in the exhibition, held in conjunction with this conference. Visit the website for further information: <http://online.nuclearmalaysia.gov.my/sems/icem2010>



MSNT delegates visiting one of the exhibition booths belonging to a Malaysian company

MSNT delegation at Indonesian NDT Expo, July 2010

MSNT wishes to congratulate its Indonesian counterpart, The Indonesian Association of NDT (AUTRI), for its success in organising NDT EXPO. The expo was opened by the Minister of Science and Technology on 21 July 2010 and was attended by more than 300 people representing various sectors of NDT-related industries.

As a symbol of friendship, MSNT sent its delegation to this expo. The delegation comprised four MSNT members, led by the President who also presented a paper entitled: 'Expanding NDT Application for Concrete Inspection' in the seminar organised in conjunction with this EXPO. In addition, the MSNT President was also invited as one of the panelists in a special forum held during the EXPO, discussing various issues related to NDT. It is great to observe that, during this event, members of the MSNT delegation established links with various parties related to NDT and future collaborations were discussed.



Some of the participants attending the National Training Course on NDT for Concrete Inspection

Malaysian Expert in Indonesian Training Course on NDT for Concrete, 19-23 July 2010

The International Atomic Energy Agency (IAEA) has invited the MSNT President as an expert to assist Indonesia in its effort to diversify the application of NDT in Indonesia through a National Training Course on NDT for Concrete Inspection. The training course took place between 19 and 23 November 2010, in one of the Conference Centres in Manggala Wanabakti Jakarta. The course was attended by 15 participants from various NDT organisations and was opened by the President of the Indonesian Association for NDT (AUTRI). In his opening speech, AUTRI's President expressed his appreciation on efforts taken by various NDT organisations in Indonesia to diversify NDT application from its traditional area. He also expressed his wish for better links and collaboration between NDT personnel from both Malaysia and Indonesia.

IAEA/RCA Meeting on NDT Project, Hanoi, 4-8 August 2010

In a bid to strengthen NDT technology to support our local industries, Malaysia has participated in an IAEA/RCA project on Advanced NDT. The project began in 2010 and is expected to end in 2012. The main focus of this project is to promote the application of the digital radiography method in member states. In addition, this project also addresses the need for accreditation of the NDT Certification Body (in accordance with ISO 17024) as well as NDT laboratories (in accordance with ISO 17020). The mid-term review meeting was held in Hanoi, Vietnam and attended by 20 individuals representing 14 member states. Malaysia was represented by the MSNT President.



Participants of the meeting took a group photograph at the end of this meeting

In the area of digital radiography, Malaysia has reported its success in producing a low-cost digital radiography detector and work is still continuing to improve the performance of this device. Malaysia expressed its special thanks to IAEA and BAM of Germany for their strong support that led to the success of this project. In addition, Malaysia also reported its progress in the area of accreditation of the National Certification Body where application for accreditation has been submitted to the National Accreditation Body.

Talk on digital radiography for PETRONAS Engineers

In its effort to encourage local industries to adopt advanced NDT technology, MSNT has been working together with one of the Malaysian NDT companies to deliver a special presentation for a group of PETRONAS engineers and technicians. The event took place in PETRONAS Training Centre, known as PERMATA, on 9 August 2010. In this event, MSNT representative Dr Abd Razak Hamzah delivered a lecture entitled 'Radiography Go Digital'. In this lecture, Dr Razak stressed the importance of Malaysian industries to adopt advanced NDT technology that is safer, more productive and environmentally friendly. MSNT would like to express its appreciation to ITC Skill for its role in arranging the talk.

EUROPE

The National Conference of Hellenic Society a great success

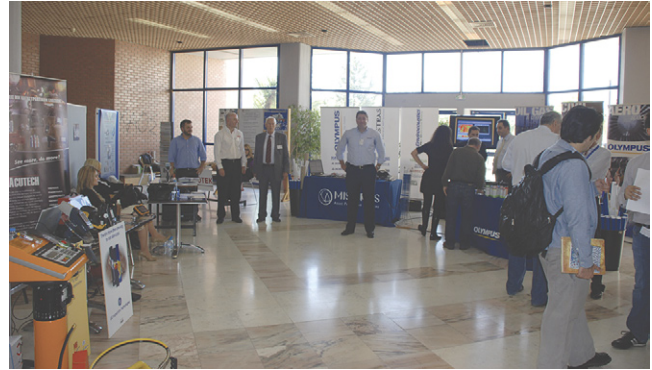
It was the opinion of both organisers and delegates that the 7th NCNDT of HSNT ended with great success, despite the economic downturn. This conference was the biggest and most interesting national conference on NDT organised by HSNT.

It was co-organised by the Hellenic Technical Chamber (TEE) and took place under the auspices of the National Technical University of Athens, at its administration building in Zografou University Campus. There were 76 submitted papers originating from Greece, as well as some from abroad. Of these, 42 were oral presentations and 34 for poster presentation. Some participants did not manage to attend the conference days but this did not really affect the flow and success of the conference.

All presented works were of a high level and original, covering almost all the NDT methods and a great field of applications, and participants came from industry as well as from universities and research centres. Applications of NDT in industry, civil engineering works, power production, aeronautics, art, monuments and in world civilisation heritage works as well as medical applications were presented.

Though the conference was a national one, many participants came from abroad. The mini-exhibition of NDT companies and representatives, which took place in the venue of the conference, was also very impressive.

The number of participants at the conference and the visitors to the exhibition combined, coming from industry as well as from the university community, amounted to more than 500 in total.



The mini-exhibition was very impressive

The Organisation Committee of the conference, the Board of Directors of HSNT and the HSNT President would like to express their warmest thanks to all for their contribution to the success of the conference. "Special thanks go to the Hellenic Technical Chamber, the National Technical University of Athens, the sponsors, the exhibitors and, most importantly of all, to the participants (professionals, authors, researchers and students). Without this wide support not only would the execution of this conference be impossible but also its subject wouldn't be of any scientific value," said Ioannis N Prassianakis, President of HSNT and Professor Emeritus, NTUA.

At the end of the conference, during the round table discussion, some interesting proposals were submitted, among them the decision of HSNT for its next international conference, the 5th ICNDT, which was accepted unanimously to take place in Athens in autumn 2012.

For further information, contact Ioannis N Prassianakis, President of HSNT, Professor Emeritus NTUA, Department of Engineering Science, Section of Mechanics, 5 Heroes of Polytechnion Avenue, Gr 157 73 Zographou, Athens, Greece. Tel: +30 210 772 1312; Fax: +30 210 772 3759; Email: prasian@central.ntua.gr



Professor Ioannis Prassianakis opens the 7th National Conference of the Hellenic Society for NDT

6th International Conference on Certification and Standardisation in NDT

Certification 2011 – the 6th International Conference on Certification and Standardisation in NDT – is the next in a series of events that began in London in 1993, followed by Birmingham in 1996, Meriden (UK) in 1999, Manchester in 2004 and Berlin in 2007.

Organised by the Spanish Society for NDT (AEND) and co-sponsored by the European Federation for NDT (EFNDT), the Institute of Materials Technology (ITM) and the Polytechnic University of Valencia, Spain, the conference is to be held 13-14 June 2011 in Valencia, Spain. Immediately following the certification conference, the 12th National Conference of the Spanish Society for NDT will be held in the same venue.

Certification 2011 will cover all aspects of certification and standardisation, including the topical and important issue of harmonisation. In addition, International and European standards,

qualification and validation of NDT equipment and processes, laboratory and certification body accreditation, training, qualification and certification of NDT personnel, approval of NDT contractors, round robin trials and examination specimens will all come under the spotlight.

The conference will address many current issues, identifying existing and potential problems – and possible solutions. Speakers will be leaders in their respective fields and will provide valuable information on new developments – many of which will be made public for the very first time.

There will be an exhibition of NDT-related products running concurrently with the congress.

For further information, contact the Spanish Society for Non-Destructive Testing, Bocágel 28 2º izq, 28028 Madrid, Spain. Tel: +34 913 612 585; Email: informacion@aend.org; Web: www.aend.org

PAN-AMERICA

Report from Latin America

1. NDT societies

There are NDT societies in the following countries:

- **Argentina:** Asociación Argentina de Ensayos No Destructivos y Estructurales – AAENDE / Argentinian Society of Non-Destructive Testing and Structurals
- **Brazil:** Associação Brasileira de Ensaios Não Destrutivos e Inspeção – ABENDI / Brazilian Society of Non-Destructive Testing and Inspection
- **Uruguay:** Asociación Uruguaya de Ensayos No Destructivos – AENDUR / Uruguayan Society of Non-Destructive Testing
- **Colombia:** Asociación Colombiana de Soldadura y Ensayos No Destructivos / Colombian Society of Welding and Non-Destructive Testing
- **Mexico:** Instituto Mexicano de Ensayos No Destructivos A.C. – IMENDE / Mexican Institute of Non-Destructive Testing
- **Venezuela:** Asociación Venezolana de Ensayos No Destructivos – ASOVEND / Venezuelan Society of Non-Destructive Testing
- **Peru:** Asociación Peruana de Ensayos No Destructivos – ASPEND / Peruvian Society of Non-Destructive Testing

Comments:

1. In Mexico, there is also the Asociación Mexicana de END – AMEXEND / Mexican Society of NDT.
2. The Asociación Peruana de Ensayos No Destructivos / Peruvian Society of NDT is in anticipation of final settlement.

2. Other institutions which develop NDT activities

- **Bolivia:** Camara Boliviana de Hidrocarburos / Bolivian Chamber of Hydrocarbons
- **Costa Rica:** Instituto Tecnológico de Costa Rica / Institute of Technology of Costa Rica
- **Cuba:** Centro de Aplicaciones Tecnológicas y Desarrollo Nuclear (CEADEN) y Unión Eléctrica / Directoria Técnica / Centre of Technological Applications and Nuclear Development and Electrical Union / Technical Directorship
- **Ecuador:** Escuela Superior Politécnica del Litoral – ESPOL / Coastline College of Polytechnic
- **Guatemala:** Ministerio de Energía y Minas – MEM / Ministry of Energy and Mines
- **Paraguay:** Universidad Nacional de Asunción / National University of Asunción
- **Dominican Republic:** Comité Nacional de Ensayos No Destructivos y Calidad – CONENCA / National Committee of Non-Destructive Testing and Quality

3. Qualification and certification scheme of NDT situation, according to ISO 9712 in the region

- National systems installed according to ISO 17024 and ISO 9712: Argentina, Brazil and Colombia
- National systems under implementation: Peru, Bolivia and Mexico

4. Training and certification report

Brazil

ABENDI is accredited by INMETRO, the national accreditation body, according to ISO 17024 and based in ISO 9712 standard.

It is recognised by the European Federation of NDT (EFNDT), through Mutual Recognition Agreement (MRA).

ABENDI has implemented the system of recognition of body training – OTR (Organismo de Treinamento) to qualification courses Levels 1 and 2 in Brazil. ABENDI administers Level 3 courses.

Currently, there are 62,000 qualified professionals certified in Levels 1, 2 and 3. In total there are 16,025 professionals registered in the national scheme.

Annually, 1100 professionals are trained in NDT courses all over the country.

Peru

Asociacion Peruana de Ensayos No Destructivos (ASPEND) / Peruvian Society of NDT.

40 persons are in the process of regularisation in the registration. The entity responsible for accrediting entities in the case of certification and qualification of NDT personnel is INDECOPI (Instituto Nacional de Defensa del Consumidor y de la Propiedad Intelectual / National Institute of Consumer Defense and Intellectual Property). It is reviewing a proposal from the National NDT Committee. The Peruvian standard of certification and qualification is NDT ITINTEC 833.03.90-02.20. INDECOPI also assumes to ISO 17024 accreditation.

According to the certification scheme ISO 9712, there are no certified and qualified persons through this standard. The personnel certification and qualification in NDT is done according to the ASNT (American Society for NDT) and its qualified practices. The 30 NDT companies that work in Peru have their employees certified by Level 3 ASNT (nationals and foreigners).

Mexico

The Mexican Institute of NDT (IMENDE, A.C.) has 20 years of continued activities dedicated to the promotion of application and NDT training.

In Mexico, the NMX B482 was released in 1994 and revised in 1999 and in 2005. At the present time, the 11 Subcommittee of the Technical Committee of Standardisation of the Steel Industry (COTENNIS) has the updated standard in the programme based again in ISO 9712. This committee participates in the group of ISO attention of the General Management Standards Secretariat of Economy and the engineer Garcia Cueto is the delegate to the TC135 of NDT.

The IMENDE A.C. has an open public list in its website where there are more than 3000 persons who are registered as trained and qualified in different methods of NDT; there is also a qualification programme which is being evaluated by The Standardisation Mexican Entity (EMA), under ISO 97024, to be the Mexican entity of personnel certification in NDT. There is also a list of certified personnel by IMENDE A.C. to Level 2 in NDT.

The IMENDE A.C. records have 9000 trained persons during the 20 years of existence of the Institute, the updated list is published on the website.

Cuba

Cuba has created a committee called CENDIMEC – Committee of Non-Destructive Testing, Inspection and Corrosion Measurements as part of the Society of Mechanical, Electrical and Industrial Engineers in the city of Havana; engineer members are affiliated to this Society and others are invited for activities from other organisations related and specialised in NDT. There are 120 associates.

Currently, there is no national scheme of qualification and certification approved yet, but the electric power industry has a Project of Integral Diagnosis, which includes the attention of different NDT techniques and gives priority to technical and professional advancement in this field. This was done five years ago.

The proposal for adoption as a Cuban standard ISO 9712 on training and certification of NDT personnel is in the initiation process and documents are being prepared for its application in the short term (2010) in the electricity industry. Afterwards, this proposal would be applied to other basic industries such as petroleum and chemical industries.

Cuba has 60 skilled technicians in various NDT techniques, but

these have not yet been certified; although around 15 specialists were certified at various levels, they lost this category at the end of the period of validity of their certificates.

There are currently nine specialists who are preparing for the next certification.

There are 95 trained professionals.

Final additional comments:

- A national workshop on vibration testing for rotating equipment was concluded.
- A technical improvement programme continues – professional specialised topics in NDT and diagnostic techniques in general as well as delving into the field of measurements of NDT techniques and metrological assurance and also in the technical review and adoption of standard documentation.

Ecuador

Ecuadorian Society of NDT (currently in the process of revival, as it was inactive for a while). 20 members.

They are working to implement the national qualification and certification scheme within the Regional Project RLA/8/044 NDT.

In Ecuador there are four people certified as Level 3 in some NDT methods, according to ISO 9712 and ASNT.

There are around 200 trained people in different methods and levels of NDT.

Currently, a committee of NDT has been formed with the participation of the following institutions and state companies and individuals associated with the activity of the NDT:

- Undersecretary of Control, Nuclear Research and Applications (SCIAN)
- Coastal Superior Polytechnic School (ESPOL)
- National Polytechnic School (EPN)
- Chimborazo Polytechnic School (ESPOCH)
- Army Polytechnic (ESPE)
- Ecuadorian Institute of Standardization (INEN)
- Ecuadorian Air Force (DIAF)
- Ecuadorian Naval Shipyard (ASTINAVE)
- Non-Destructive Testing of Ecuador (ENDE)
- Fedimetal

This committee normally meets once a month and its role is to coordinate the activities of training, qualification and certification of NDT personnel under the Regional Project RLA/8/044.

The following major activities have been done in this year:

- Issuance of industrial radiography course according to ISO 9712 Level 1, ESPOL, 40 hours. 22-26 February
- Issuance of liquid penetrant course according to ISO 9712 Level 1, ESPOCH, 16 hours, 27 -28 February
- Development of a forum: 'Outline of training, qualification and certification of personnel performing NDT in Ecuador', ESPE, 18 June

Ecuador's participation in the proposal for a thematic network for strengthening of training and certification of NDT personnel in conventional and advanced techniques converged to ISO 9712 and ISO 17024 in the framework of the Iberoamerican Programme of Science and Technology (CYTED) and the National Atomic Energy Commission Argentina (CNEA).

Costa Rica

Costa Rican Society of Non-Destructive Testing and related (Acenda). About 30 partners.

There is not a national scheme for qualification and certification in NDT. It is planned to have it implemented at the end of the ARCAL RLA/8/044 Project. The society has about ten partners certified according to ISO 9712 and about five associates under the rule SNT-TC-1A.

There are approximately 400 people in training courses on non-destructive testing and welding, implementation of standards,

pressure vessels, etc.

The following points have already been developed and others are still being developed:

- Implementation of the International Course on Non-Destructive Testing Level I in X-ray techniques, magnetic particle, liquid penetrant and ultrasound in February 2010
- Establishment of the Costa Rican Society of Non-Destructive Testing
- Updating and implementation at the national level of ISO 9712 Version 2005
- They are working on the accreditation of a national certification agency once they do not have such a centre
- Linkages with domestic companies through the sale of services is one of their main strengths. Currently, they provide services to companies such as the Costa Rican Petroleum Refinery, Costa Rican Institute of Electricity, mechanical metal companies, construction companies, food industry, chemical industry etc, for a total of about 300 companies.

Bolivia

There is not a society that brings together professionals of non-destructive testing (NDT) in Bolivia so the Bolivian Chamber of Hydrocarbons – CBH, through its national qualification and certification programme, PNCC, is developing qualification and certification schemes in NDT to be implemented in Bolivia.

CBH has 84 affiliate companies, of which 70% are directly or indirectly related with the issue of NDT.

The companies are distributed as follows:

- Upstream (11)
- Downstream (3)
- Services and supplies (38)
- Auxiliary services (30)

There are Bolivian standards NB ISO 9712 and NB ISO 17024 promulgated by the Bolivian Institute of Standardization and Quality – IBNORCA.

The number of qualified and certified people is unknown, but CBH is conducting surveys in order to precisely quantify qualified and certified personnel, in which levels, through which agencies and under what rules or patterns they are certified.

Two activities can be mentioned:

- Informative talks on non-destructive testing in universities and companies.
- Workshop courses on the basics of NDT (15 people have participated in their NDT course).

5. Other activities in the region

ARCAL Project

The ARCAL Project was implemented, coordinated by Argentina, with IAEA (International Atomic Energy Agency) support. The objective of the project is to support the initiative of each country in the implementation of the programme of training and certification of personnel in NDT according to ISO 9712. Several regional Level 2 courses are being conducted in different methods of NDT. The project involves the participation of 15 countries in Latin America.

RLA/8/044 PROJECT

“Regional harmonisation regarding the qualification and certification of personnel and the infrastructure used for the non-destructive testing in systems, structures and compounds”

Argentina, through CNEA (National Committee of Atomic Energy) has been designated as the coordinator for a project of the OIEA (International Body of Atomic Energy) that tends to harmonise the legislation of NDT in the Latin America region and Caribbean. 14 countries have subscribed for the project, for which the

acronym is ARCAL-RLA/8/044: Argentina, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Ecuador, Guatemala, Haiti, Mexico, Paraguay, Peru, Uruguay and Venezuela. CNEA counts with the support of AAENDE (Argentinian Society for Non-Destructive Testing and Structural) to develop this initiative. Spain also collaborates as a 'giver' through AEND – Spanish Society of Non-Destructive Testing.

The project consists of developing a system of personnel qualification and certification standards based on ISO 9712 and 17024 in the region, as it works with the IRAM system, in which the certification was accredited opportunely by the Argentine Accreditation Organization (OAA), with reference standards.

The project started to be executed in 2009 with its first coordination meeting held in Buenos Aires, where the following actions were agreed:

1. Establish the project's working group in each country and organise their activities.
2. Develop the final profile of the real situation of NDT in each country and send it to the coordination of the project, according to the official format of the project.
3. Demonstrate, in writing, the adoption and enforcement of standards ISO 9712 and 17 024 for each of the participating countries.
4. Establish personnel qualification and certification bodies according to ISO 9712.
5. To design, develop and document the quality system certification body in each country in accordance with ISO 9712 and 17024.
6. Establish training and testing centres according to the needs of each country, based on ISO standards 9712 and 17024.
7. Spread in each country IAEA-TECDOC-628/Rev document 2008 'Training Guidelines in Non-destructive Testing Techniques'.
8. Prepare and administrate the training and qualification samples of different NDT methods according to the IAEA manufacturing guide.
9. Develop training programme in the implementation of personnel certification systems for the country in accordance with ISO 9712 and 17024, based on bilateral, without the assistance of the IAEA.
10. Establish question banks for training and examination related to the different techniques and levels of NDT.
11. Design a training plan on different methods and levels of NDT according to ISO 9712, according to the needs of each country.
12. Implement mechanisms for monitoring staff trained, qualified and certified by the project in the different methods and levels of NDT.

During 2010, a Level 1 course in four NDT methods was issued for those countries with less development. It was held in February at the Technological Institute of Costa Rica.

During the month of May, a course of industrial radiography Level 2 was given at the headquarters of the Brazilian Association of Non-Destructive Testing and Inspection (ABENDI), Sao Paulo, (Brazil).

The next courses scheduled in 2010 are liquid penetrant and magnetic particle Level 2 in August and ultrasound Level 2 in November.

RED FORTEND

Work is being done on the implementation of the RED IBEROAMERICANA of NDT – FORTEND initiative, involving the participation of several countries. The work is being coordinated by DASEL Company in Spain, AAEND and Argentina.

ASNT 20th Annual Research Symposium and Spring Conference

21-25 March 2011
San Francisco, USA

Symposium objectives:

- Provide a professional forum for communication among non-destructive evaluation researchers.
- Promote NDE technology transfer among researchers, engineers, inspectors and equipment makers.
- Identify emerging NDE technologies, trends and increase the knowledge base.
- Turn the spotlight onto critical technologies for which NDE can play a vital role.

For further information, contact:
ASNT, 1711 Arlingate Lane, PO Box 28518,
Columbus OH 43228-0518, USA.

www.asnt.org

CALL FOR PAPERS

5th Pan-American Conference for NDT

2-6 October 2011, Cancún, Mexico

Cancún is the site of the V Pan-American Conference for Non-Destructive Testing (V PANNDT). This event will be held 2-6 October 2011 at Cancún Convention and Exhibition Center and will feature interesting presentations among other activities – that is why papers are invited to participate in this magnificent event!

The conference will address the latest research in the area of non-destructive testing and will gather the world leaders on this matter.

Interested parties must submit a 250 word abstract online at: www.ndt.net/panndt2011

The deadline for abstract submission is 31 January 2011.

Notifications of acceptance will be sent by 1 March 2011 and full papers are due on or before 31 July 2011.

For more information tel: +52 55 5579 6629; Email: info@copaend5.com or info@ndt.net or visit:

www.copaend5.com

CALENDAR OF NDT EVENTS

Month	Date	Venue	Event	Contact
March 2011	21-25	San Francisco USA	20th ASNT Annual Research Symposium and Spring Conference	conferences@asnt.org www.asnt.org
April 2011	13-15	Florence Italy	10th International Conference on Non-Destructive Investigations and Microanalysis for the Diagnostics and Conservation of Cultural and Environmental Heritage – art '11	segreteria@aipnd.it www.aipnd.it/art2011
May 2011	10-13	Pernambuco Brazil	24th Brazilian National Congress on Non-Destructive Testing and Inspection	eventos@abendi.org.br
	19-20	Manchester UK	11th International Conference on Engineering Structural Integrity Assessment – ESIA11	poul.gosney@fesi.org.uk www.fesi.org.uk
June 2011	13-14	Valencia Spain	CERTIFICATION 2011 – the 6th International Conference on Certification and Standardisation in NDT	informacion@aend.org www.aend.org
	15-17	Valencia Spain	12th National Congress of the Spanish Society for NDT (AEND)	informacion@aend.org www.aend.org
	19-24	Blacksburg Virginia, USA	12th International Symposium on Non-Destructive Characterisation of Materials	jcduke@vt.edu
July 2011	11-13	Oxford UK	9th International Conference on Damage Assessment of Structures – DAMAS 2011	conferences@iop.org www.damas2011.org
September 2011	7-9	Edinburgh UK	International Conference on Advances in Experimental Mechanics: Integrating Simulation and Experimentation for Validation (ISEV)	johnedwards@bssm.org www.bssm.org/conf2011
	13-15	Telford UK	Materials Testing 2011 Exhibition and NDT 2011 Annual British Conference on NDT	cindy.bailey@bindt.org www.bindt.org
October 2011	2-6	Cancún Mexico	5th Pan-American Conference for Non-Destructive Testing	info@copaend5.com www.copaend5.com
November 2011	9-11	Ostrava Czech Republic	Defektoskopie 2011 – 41st International Conference and Exhibition	cndt@cndt.cz www.cndt.cz
April 2012	18-20	Durban South Africa	18th World Conference on NDT	saint@acenet.co.za www.saint.org.za