



The World Organisation for NDT

Volume 8 Issue No 10

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September 2012

CHAIRMAN'S MESSAGE

World Conference surpasses all expectations

This is the first issue of the *ICNDT Journal* since the 18th World Conference in Durban, South Africa. We had high hopes that the South African Institute of NDT (SAINT) would run a successful event, and our hopes were surpassed! From the reports and statistics elsewhere in this Journal you can judge that the 18th WCNDT was among the most successful ever. On behalf of ICNDT, its members and the attendees at the conference and exhibition, I wish to thank Manfred Johannes, the World Conference President, and his team of 'SAINTS'! Special mention is due to Professor Arthur Every (who organised a superb technical programme, notable for its keynote lectures and invited speakers) and Butch Davies (who recruited exhibitors and sponsors). A very special mention is due for Giuseppe Nardoni, former Chairman of ICNDT, who facilitated the presence of Nobel Prize winner Sir Harold Kroto.

Alongside the conference, ICNDT organised its business meetings, including the General Assembly. I was pleased to be asked to serve a second term as Chairman and in my support the General Assembly elected an excellent team of officers and chairs for our committees and working groups. BINDT, led by David Gilbert, will continue to provide our secretariat. We are grateful to David Barnett and Wayne Holliday, who stood down after four years' service, and welcome Sajeesh Babu, Younho Cho and Sharon Bond to the Executive Committee. The Korean Society for NDT was elected to host the 20th WCNDT in 2020.

During the conference, ICNDT participated in a series of workshops, which were used to help develop ideas for our programmes over the next four years and, after approval in principle at the General Assembly, these are now being consolidated into our strategic plan and into action plans for our working groups.

I have been busy myself since Durban. We have a new grandson, born in London, and I have more or less retired from full-time employment, so this is my first *ICNDT Journal* message as a freelance consultant! In future, my travel costs will be met by The British Institute of NDT. I have met with WINS (the World Institute for Nuclear Security), which is planning a new guide on the security of radioactive sources used for NDT and would like our input. I have opened discussions with the ISO Technical Committee on Condition Monitoring on Liaison Membership, which would parallel our relationship with TC135 on NDT. We have made progress towards the translation of our question bank into Spanish. Last, but not least, I was re-elected to membership of the Scottish Branch committee of BINDT. I would like to urge all my colleagues in NDT to participate in Branch/Chapter or Section activities where you live or work and, if there is no local Branch, then start one!

All the best in NDT,

Dr J M Farley
Chairman, ICNDT



The 18th World Conference on Non-Destructive Testing

A summary by Dr Manfred Johannes,
President, South African Institute of NDT (SAINT)

On behalf of the South African Institute for Non-Destructive Testing (SAINT) I would like to thank everyone who contributed to the success of the 18th World Conference on NDT, held in Durban from 16-20 April 2012. The support from South African companies and personnel, as well as the international NDT community, was overwhelming. Over the five days, 1411 persons from 69 countries attended the conference or the exhibition. The representation per country was as follows:

- From South Africa – 560. This effort is highly appreciated and shows that there is an intense interest and need for NDT in South Africa. Attendance per country for the remainder was as follows: Germany – 98; United Kingdom – 75; China – 68; India – 64; France – 54; Russia – 48; USA – 46; The Netherlands – 26; Canada – 22; Italy – 20; Sweden – 20; Brazil – 18; Nigeria and South Korea – 15; Czech Republic, Switzerland and UAE – 13; Austria and Israel – 12; Belgium – 11; and Australia – 10, as well as a further 48 other countries with single figures. Thank you all for having made the effort to come to South Africa.

The exhibition was staged by 120 companies from all over the world, which made it a truly international showcase. There were also 17 sister institutes of SAINT who participated in the exhibition and demonstrated what other institutes engage in on a day-to-day basis.

Continued on page two



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Continued from front page

- The technical programme included a presentation by the Nobel Prize winner Sir Harold Kroto, which lent a special lustre to the occasion and will be remembered for a long time by all who attended.
- Plenary lectures were given by six invited eminent persons from around the globe, 32 overview papers on various topics and technologies were given by the leaders in their respective fields, 260 scientists and technologists read papers over the five days and 39 people exhibited their research work in the poster sessions. This was a truly international effort, which is highly commended and appreciated.

- For an insight into the technical content of the conference, visit www.ndt.net, where all the papers that were submitted can be accessed.

- I would like to thank all the members of the local organising committee for its hard work over many months and years, the Conference Company (Pty) Ltd for their excellent support in staging the conference and, last but not least, everybody who attended the conference. It is highly appreciated.

**Material for the next ICNDT Journal should be sent to
Sharon Bond, email: s.bond@cinde.ca**



ISO meetings held at WCNDT and main outcomes

SC2 – Surface Methods

- Wording changes to the scope
- NWI – Mag Flux Leakage – remains SC2 responsibility
– separate method

SC3 – Ultrasonics

- EN 16018 – included phased array terminology, NWI to fast track

SC4 – Eddy Current

- Several standards have been re-confirmed following revisions

SC5 – Radiation Methods

- New Chair – U Ewert
- Liason with TC44/Testing of Welds

SC6 – Leak Detection

- Difficulties in getting participation, seeking participation

SC7 – Personnel Qualification and Certification

- Adoption of TS 22809 (discontinuities in specimens) in place of CEN TS 15053 permitting harmonisation. ISO TS 22809 is up for revision in 2013 – aligns with the harmonisation of EN/ISO 9712
- TC135 request to assign TR 25107 and 25108 (common to all methods) to SC7. If approved, a new NWIP for revision via joint WG with CEN. TC135 will survey all members for approval of transfer – to include input from other SC committees

SC8 – Infrared Thermography

- Newer subcommittee
- Several new working groups established, first standard

SC9 – Acoustic Emission

New work item

- New joint working group with CEN group on visual acuity – symbols instead of letters

Sharon Bond

World Conference a huge success

Elsewhere in this issue you will see messages of congratulations and thanks to the South African Institute for NDT (SAINT) for its commendable organisation of the 18th World Conference on NDT, which took place in Durban in April.

To attract almost 1500 people to the conference and exhibition is one remarkable achievement, but the fact that these came from 69 different countries is a measure of the extraordinary diversity of people, languages and cultures that characterised the conference. It was Nobel Prize winner Archbishop Desmond Tutu who coined the term 'Rainbow Nation' after South Africa's first fully democratic election in 1994. This was the 'Rainbow NDT Conference', with its own Nobel Prize winner in the form of Sir Harry Kroto, whose presence at the conference was facilitated by Giuseppe Nardoni, former ICNDT Chairman and President of the Academia NDT International. Sir Harry presented two lectures during the conference, one of a technical nature to Academia members and one of more general interest in a special keynote session. He spoke about the importance of continuous development in science and research and how those with scientific knowledge have a responsibility to society at large.

In putting together the technical programme for the conference, Technical Committee Chairman Professor Arthur Every and his team achieved their goals of bringing NDT professionals up-to-date on the latest developments in NDT and giving industrial decision-makers a bird's eye view of NDT technology and application. Highlights were the keynote lectures given by experts from around the globe and the overview papers on various topics given by leaders in their fields.



ICNDT officers and members meet in Durban

The impressive exhibition, which covered a good deal of floor space in a large hall adjacent to the conference, featured some 120 companies from all over the world and 17 booths occupied by representatives from NDT societies from across the ICNDT regions. All tea and coffee breaks and lunches were held in the exhibition hall. Butch Davies, Chairman of the Marketing and Sales Committee, and his team did a great job in putting together an exhibition of quality and proportion in difficult global economic times.

One innovative feature of the exhibition – and a highlight of the conference as a whole – was the Education Pavilion, an area within the exhibition where students from local schools were brought in to learn a bit about NDT and its basic methods and then allowed to visit the show (see inset box, right). The organisers of, and participants in, this initiative are to be applauded. It not only demonstrated an effort to engage with young people and increase the awareness of NDT, but it also added colour and enthusiasm to the event.

The ICNDT held various committee meetings, two General

Assemblies and several workshops immediately before and during the conference. There were meetings of Working Group 1 – Certification, the Executive and Policy 8 General Purposes Committees.



Mr Sigit B Santoso, representing Indonesia, is presented with his society's membership certificate by Mike Farley, with João Conte, Chairman of the ICNDT Membership Committee (left) and David Barnett, General Secretary

Pay it forward

Accolades should go to the South African Institute for NDT (SAINT) for its organisation of the 18th WCNDT held in Durban, South Africa. One unique event, organised with co-operation between five training organisations, was the Education Pavilion. Approximately 300 students from various local high schools (age range 13-17) were invited to visit the NDT Education Pavilion, where they were introduced to the world of non-destructive testing. The Non-Destructive Academy of South Africa (NASA), the African NDT Centre, the School of Applied Nondestructive Examination (SANDE), the South African Institute of Welding and the Applied Science Working for You each, in turn, provided the students with a short presentation on one of the five main methods of NDT (MT, PT, UT, RT and ET). Following the presentations, the students were then provided with an opportunity to visit the 120 exhibitors. Congratulations to all organisations for this initiative, which we hope to see at future WCNDT conferences.



ICNDT Chairman Mike Farley (wearing the baseball cap) and Butch Davies (to his left) with a group of students from a local high school in the exhibition area at the WCNDT in Durban

AFRICA



Professor Pedro Vilaça (right) is presented with the membership certificate for Portugal (RELACRE) by Dr Farley, with Mr Conte (left) looking on



Svetlana Stragnefors is presented with the membership certificate for the NDT and Technical Diagnostic Association, Republic of Kazakhstan

At the second General Assembly meeting on the Thursday afternoon, Dr Mike Farley was elected Chairman for a second term and other officers were appointed (see Tables 1 and 2). Mr David Barnett and Mr Wayne Holliday stood down after four years' service and were thanked for their hard work during their periods of office. At the same meeting, the Korean Society for NDT was elected to host the 20th World Conference on NDT in 2020. Of course, the 2016 WCNDT, the 19th, is to be held in Munich,



Members of the new ICNDT Executive Committee (from left to right): João Conte, Matthias Purschke, Sharon Bond, Mike Farley (Chairman), Sajeesh Babu, Gerhard Aufrecht, Douglas Marshall, David Gilbert (Secretariat) and Younho Cho

Germany, and the German Society (DGZfP) gave a presentation on the progress so far.

The ICNDT Roentgen, Pawlowski, Havercroft, Sokolov and Young Achiever Awards were presented at the opening ceremony (see photographs) and ICNDT Honorary Membership was awarded to Manfred Johannes, Nori Ooka and John Thompson.

Table 1. ICNDT Officers for the period 2012-2016

Position	Name (country)
ICNDT Chairman	Dr Mike Farley (UK)
ICNDT General Secretary	S K Babu (Singapore)
World Conference President	Dr Matthias Purschke (Germany)
NDT society to provide secretariat	The British Institute of NDT (UK)
Treasurer	Ing Gerhard Aufrecht (Austria)
Two elected members	Sharon Bond (Canada) Younho Cho (Korea)
Auditors	John Maccarone (Australia) Werner Schmid (Switzerland)
Chairman WG1	Alexander Mullin (Russia)
Chairman WG3	Manfred Johannes (South Africa)
Chairman of Membership Working Group	João Conte (Brazil)
Chairman of Certification Executive Committee (CEC)	Patrick Fallouey (France)
Secretariat CEC	John Thompson (UK)

Table 2. Representatives of the Regional Groups

Regional Group	Name (country)	Proposed by
Africa	Jim Guild Moussa Bakoura	AFNDT
Asia-Pacific	B Venkataraman N Ooka	APCNDT
Europe	V Krstelj E Romero	EFNDT
Pan America	C Belinco J Conte	PANDT

A number of workshops were held during the conference, including a 'Meet the Researchers' forum organised by Professor Every. In this interesting and useful session, several research scientists from around the world made presentations on their work and also on the work of the relevant centres within their region, provoking discussions and the potential for collaboration.

A qualification and certification workshop, organised by John Thompson, was well attended due to the fact that it included a global review of the subject area, an introduction to the ICNDT Guideline to NDT personnel qualification and certification, information on



Dr Farley (centre) with the ICNDT award winners (from left to right): Alexey Efimov (Young Achiever, shared), Patrick Fallouey (Havercroft), Norikazu Ooka (on behalf of Professor Teruo Kishi, Roentgen, shared), Mike Farley, Hajime Hatano (Havercroft), Kit Lane (Young Achiever), Douglas Marshall (Pawlowski). Not present: Roentgen Award shared prize winners, Professors Cawley and Lowe – see *Insight*, September 2012



New ICNDT Honorary Members (from left to right): Nori Ooka, John Thompson and Manfred Johannes

the newly proposed ICNDT multilateral recognition agreement and personnel certification body assessment and approval scheme, and a review of the new harmonised standard EN ISO 9712.

Another successful workshop was the one arranged for fledgling societies, when no fewer than 20 representatives – many of them from African countries with little or no coordinated NDT association – attended to find out more about ICNDT and what it could do for them, how to build a society and discuss areas of common interest. The enthusiasm that was demonstrated by the attendees was an encouragement to all who participated.



Participants in the workshop for fledgling societies

The radiation protection workshop held on the final morning of the conference was also well supported and dealt with important developments in this area. Christina Müller from BAM in Berlin directed another technical workshop on the reliability of NDT.

Immediately prior to the conference there was a technical workshop on advanced digital imaging, directed by Dr U Ewert from BAM in Berlin and Dr B Venkatraman of IGCAR in Chennai. The workshop comprised overviews of imaging techniques such as digital radiography, thermal imaging, electromagnetics and ultrasonics, coupled with specific industrial applications of these.

A full programme of ISO TC135 meetings were held alongside the conference, including several of its sub-committees and a plenary session. Details and main outcomes of these are given on page 2.

On the social side there were plenty of opportunities for delegates to meet and renew acquaintances, network and exchange ideas and experiences. The beach party on the Tuesday evening, courtesy of the City of Durban, survived the unseasonal downpour, but the highlight was the Conference Banquet, a joyous and multi-coloured celebration of the success of the 18th World Conference on NDT.

Last, but not least, accolades must go to two worthy recipients: Dr Manfred Johannes, whose tireless efforts and total dedication assured the success of the conference; and The Conference Company, the professional organising team led by Driede Hancke-Hayson, who always went out of their way to help delegates, exhibitors, officials and guests with goodwill and a cheerful disposition.

At the closing ceremony, Manfred Johannes considered the legacy of this superb world conference. "May the seeds planted at this event," he said, "assure the continued advancement of non-destructive testing technology, ensure that the friendships formed will be 'non-destructive', prosper and be everlasting and make the world a safer and more peaceful place to live in."

Until we meet again in Germany in four years' time, "hambani kahle – go well!" concluded Manfred Johannes.

Societies' workshop outcomes

The following countries were represented at the ICNDT Workshop for Fledgling Societies, which was held during the 18th World Conference on NDT in Durban in April 2012:

- | | | |
|------------|-------------|------------|
| ● Algeria | ● Ghana | ● Nigeria |
| ● Angola | ● Indonesia | ● Tanzania |
| ● Cameroon | ● Kenya | ● Tunisia |
| ● Congo | ● Morocco | ● Zambia |
| ● Ecuador | ● Mauritius | |

Plus organising representatives from Australia, Brazil, Canada, Spain and the UK.

Representatives from the following countries declared an interest in ICNDT membership:

- | | | |
|-----------|-------------|-----------|
| ● Congo | ● Ghana | ● Nigeria |
| ● Ecuador | ● Mauritius | |

Representatives from the following countries requested help in establishing a national NDT society:

- | | |
|------------|------------|
| ● Angola | ● Tanzania |
| ● Cameroon | ● Zambia |

The following established societies were proposed as mentors for the indicated regions:

- | |
|---|
| ● English speaking: BINDT (UK)/CINDE (Canada) |
| ● French speaking: COFREND (France) |
| ● Spanish speaking: AEND (Spain) |
| ● Portuguese speaking: ABENDI (Brazil) |

ASIA-PACIFIC

News from the Indonesian Society for NDT

The pictures on this page illustrate a number of events on NDT organised by the National Nuclear Energy Agency (BATAN) and activities of the Indonesian Society for NDT (AUTRI).



From left to right: representatives from Ichisa Engineering, AUTRI and Rohmann, and participants from PT Dirgantara Indonesia, Institut Teknologi Bandung and Brunei Royal Air Force receiving a certificate of attendance, Jakarta, 26 July 2011



Site visit and meeting for the establishment of co-operation on human resource development, manufacturing group establishment, R&D and NDT calibration block specimen production between the Indonesian Society for NDT (AUTRI) and PT Komatsu Indonesia, which manufactures construction and mining equipment



IAEA/RCA technical meeting on guidelines for training/examinations and certification of candidates in the DIR and CT techniques (RAS/8110) organised by IAEA in co-operation with the National Nuclear Energy Agency (BATAN), Jakarta, 5-9 September 2011



Participants of the National Training Course on NDT Level 3 organised by the Indonesian Society for NDT (AUTRI) in co-operation with the National Nuclear Energy Agency, the Center for Material and Technical Products (B4T), B2TKS-BPPT and related NDT companies, Jakarta, 24 October-3 December 2011



Prof Dr Ir Rochim Suratman from Bandung Institute of Technology (ITB) giving a lecture entitled 'Materials and Processes' during the National Training Course on NDT Level 3, organised by the Indonesian Society for NDT (AUTRI) in co-operation with the National Nuclear Energy Agency, Center for Material and Products (B4T), B2TKS-BPPT and related NDT companies, Jakarta, 24 October-3 December 2011



Site visit and meeting for the establishment of co-operation on human resource development, R&D, certification and promotion of NDT between the Indonesian Society for NDT (AUTRI) and the Center for Material and Technical Products (B4T), Bandung, 30 December 2011. From left to right: Mr Sigit Budi Santoso, General Secretary of AUTRI, Mr Soeripto Soedarminto, Chairman of AUTRI, Ms Wieke Pratiwi, Head of B4T and Mr Yasir Wayah Nusi, Head of Training Division, B4T

News from the Malaysian Society for NDT

IAEA ARASIA regional training course on digital industrial radiography (DIR), 4-8 June 2012

A special digital industrial radiography training course was organised by the International Atomic Energy Agency specifically for participants from Arab countries. In view of the uncertain situation faced by some Arab countries, the course was organised outside the Middle East region. Upon recommendation by an expert, and based on the past experience of holding similar courses, Malaysia was pinpointed as the most suitable country to host this event.

Following this, a week-long training course was successfully held at the Malaysian Nuclear Agency from 4-8 June 2012. The course was attended by 18 participants from six Arab countries and four local participants. The course was facilitated by Professor Uwe Ewert, a renowned IAEA expert from BAM Germany, with help from some local experts.



Professor Uwe Ewert delivering a lecture at the IAEA regional training course for participants from Arab countries

In addition to delivering lectures within the course, Professor Ewert also delivered a lecture entitled 'Training and certification of personnel involved in digital industrial radiography' to MSNT members.



Mrs Madiha, a local expert, assisting Professor Uwe Ewert in delivering some of the lectures

Various awards for NDT researchers

MSNT congratulates the Nuclear Malaysia NDT Research Group, led by Mohd Noorul Ikhsan Ahmad, which has won gold medals for its research products exhibited during the National Innovation Competition and Exhibition organised by University Putra Malaysia on 17-19 July 2012. The products that won gold medals were RT Safe 053, a mechanical safety kit for industrial radiography, and Ultraclaws SF0053, an ultrasonic tomography scanning system for aquilaria evaluation. MSNT views this achievement as a sign of recognition for NDT research activities in the country and hopes that it will encourage and attract more researchers in Malaysia to be involved in R&D related to NDT technology.



Mr Noorul Ikhsan receiving awards from YBhg Dato' Ir Dr Radin Umar Radin Sohadi, Vice Chancellor, Universiti Putra Malaysia



Mr Noorul Ikhsan and group members behind their exhibition booth

MSNT would also like to congratulate Dr Mohd Azmi Ismail and his colleagues, whose paper entitled 'Characterisation of road pavement using spectral analysis of surface waves (SASW)' was awarded the Best Paper Award at the 5th Engineering Conference, held in Kuching Sarawak from 10-12 July 2012. The Best Paper Award is an award introduced by the conference organiser, University Malaysia Sarawak since 2011, to honour authors with a superior quality paper submission to the conference. This paper fits well with one of the conference objectives: to promote co-operation and technological research in green engineering.

International NDT Conference and Exhibition

The Malaysian Society for NDT is organising its biannual conference, MINDTCE 13, to be held at the Sunway Putra Hotel, Kuala Lumpur, from 16-18 June 2013.

The theme of the event will be 'NDT for Society, Quality and Productivity'. Topics covered will include:

- New, advanced and innovative NDT methods
- NDT management, training, qualification and certification
- Digital industrial radiography
- Safety and security in industrial radiography
- Application for metallic and non-metallic material
- Application in nuclear power industries
- Computed tomography.

The deadline for abstract submission is 31 October 2012 and notification of acceptance will be given by 30 November 2012. Abstracts should be submitted to: nassir@nuclearmalaysia.gov.my

For further information, contact Dr Abd Nassir Ibrahim at the above email address or telephone +6 01935 14212.

INVITATION TO PRAGUE

- CAPITAL OF THE CZECH REPUBLIC



EF European Federation for
Non-Destructive Testing
NDT

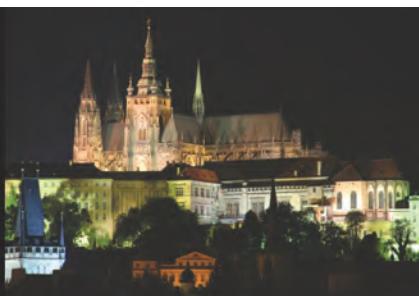


Czech Society
for NDT

Prague - the right place to host
the 11th ECNDT in 2014

**11th European Conference
on Non-Destructive Testing**

www.ecndt2014.com



IC-MINDT-2013
Materials Integrated Non-Destructive Testing 2013

**5th INTERNATIONAL
CONFERENCE
ON NDT OF HSNT**

20-22 May 2013
Eugenides Foundation, Athens, Greece

The conference organising committee, with its chairman Professor Ioannis Prassianakis, cordially invites you to present papers and posters in all relevant fields of NDT and also to participate in the exhibition of new NDT products, which will take place during the conference.

The aim of the conference is to bring together scientists and engineers to exchange recent experiences in research and development activities in the field of NDT.

The topics to be covered by the conference include all thematic areas of current research and industrial use of NDT. The main topics of the conference are:

- Applications and innovations of NDT methods
- Inspection, training and certification
- Composite materials, welding and adhesion
- Digital radiography
- NDT technology transfer
- NDT for the diagnostics and refurbishment of cultural heritage monuments
- Applications for the shipping and aerospace industries
- Applications for power generation (including nuclear technologies)
- Theoretical modelling
- NDT applications in the civil structures industry
- Non-contact NDT methods
- Industrial manufacturing
- Aerospace and marine

Important dates are as follows:

- Abstract submission deadline: 1 September 2012
- Abstract acceptance notification: 1 October 2012
- Full paper and poster submission: 1 February 2013

Contact: Ioannis Prassianakis, Professor Emeritus NTUA, Chairman of the Conference. Email: prasian@central.ntua.gr or George Papanicolaou, Professor, University of Patras, General Secretary of the Conference. Email: gpapan@mech.upatras.gr

www.hsnt.gr/IC-MINDT-2013

News from The American Society for NDT

ASNT's Radiographic Testing Programmed Instruction volumes published

Developed for trainees, Level I personnel and also to provide a solid overview of Level I and II material for NDT professionals interested in learning more about radiographic testing, the first of ASNT's new *Programmed Instruction* publications debuts this month. The five print volumes and one CD accompaniment provide up-to-date material on radiographic testing with additional information on digital radiographic imaging. The volumes are intended to be used as a self-study review of the CP-105 (2011) body of knowledge for Levels I and II. They are designed to help prepare Level I and II candidates for exams in radiographic testing. The computer-assisted training programme provides an interactive review of the material.

The print volumes feature:

- Chapter previews and summaries of key points.
- Quiz questions interspersed throughout each chapter that monitor comprehension.
- Extended explanations of right/wrong answers to quiz questions.
- Extra review questions at the end of each chapter.
- 50+ comprehensive multiple-choice questions per volume with reference pages for further review of missed questions.

The computer-assisted training programme CD features:

- Easy-to-use navigation.
- Clear learning objectives per lesson.
- Streamlined slide content for steady progression through lessons.
- Interactive quiz questions provide immediate feedback.
- Links to previous slides allow a quick review of material for missed questions.
- Comprehensive self-tests give instant results along with areas missed for further study.

Content includes the coverage of topical outlines for Levels I and II radiographic testing presented in ANSI/ASNT CP-105: ASNT Standard Topical Outlines for Qualification of Nondestructive Testing Personnel (2011). One volume is dedicated to radiographic safety as outlined in Appendix A of CP-105 (2011). There is also material devoted to digital radiography and computed radiography.

The titles for each piece are as follows:

- *Programmed Instruction Series, Radiographic Testing: Volume I, Physics and Principles*
- *Programmed Instruction Series, Radiographic Testing: Volume II, Safety*
- *Programmed Instruction Series, Radiographic Testing: Volume III, Making a Radiograph*
- *Programmed Instruction Series, Radiographic Testing: Volume IV, Processing and Imaging*
- *Programmed Instruction Series, Radiographic Testing: Volume V, Radiographic Interpretation*
- *Radiographic Testing: Programmed Instruction CD*

To order, or for more information, contact ASNT's Book Department or go to www.asnt.org and click on ShopASNT.

Orlando, Florida destination for ASNT's 2012 Fall Conference

Mark your calendar for the 2012 ASNT Fall Conference, which will be held 29 October to 2 November at the Rosen Shingle Creek Resort in Orlando, Florida. The 2012 Fall Conference will provide a forum for the exchange of theoretical, scientific and application information.



Scheduled for the conference are the following keynote, plenary and award addresses:

● Keynote Address

Tuesday 30 October 2012, 8:00-8:45 am
 Safety by design: Disney's approach to worldwide safety
 Emmett Peter, Director of Worldwide Safety and Assurance,
 Disney Parks and Resorts

● Plenary Address

Wednesday 31 October 2012, 8:00-8:45 am
 2012 salary survey results
 Michael P Serabian, President, PQNDT Inc

● Plenary Address

Thursday 1 November 2012, 8:00-8:45 am
 NASA – safety in a zero tolerance environment
 Brooks R Kimmel, Deputy Director of Safety, Health and
 Mission Assurance at the NASA Kennedy Space Center

● 2012 Lester Honor Award Lecture

Thursday 1 November 2012, 11:00 am-12:00 pm
 Quest for reliable NDT
 Ward D Rummel, D&W Enterprises Ltd

Visit ASNT's website for more conference details. Questions should be directed to Jacquie Giunta in the ASNT Conference Department, email: jgiunta@asnt.org or tel: +1 614 274 6003 ext 213.

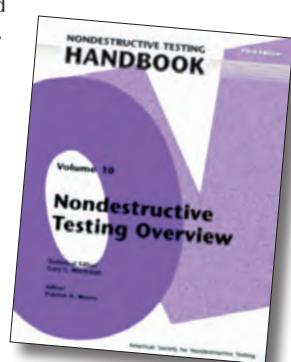
Final volume of *Nondestructive Testing Handbook, third edition* published

NDT Handbook, third edition: Volume 10, NDT Overview
 Technical Editor: Gary L Workman
 Editor: Patrick O Moore

Drawing from the comprehensive set of third edition NDT Handbook volumes, *NDT Overview* is now available from ASNT. It supersedes the second edition overview volume on the entire field of NDT. This volume is a must-have for anyone studying for the general qualification exam and gives any Level III a convenient single volume reference on the principles and applications of the major NDT methods.

The volume covers: an introduction to NDT, measurement units, history, visual testing, liquid penetrant testing, magnetic particle testing, leak testing, infrared and thermal testing, radiographic testing, electromagnetic testing, magnetic particle testing, flux leakage testing, ultrasonic testing, acoustic emission testing, vibration analysis and special methods including alloy identification, strain measurement, shearography and holography.

The 604 page volume features 720 illustrations, 69 tables, 87 equations, a 16-page bibliography on NDT history and a 60-page glossary.



ASNT's 2012 Annual Research Symposium – informative and instructive

ASNT held its 21st Annual Research Symposium 19-22 March 2012 at the Sheraton Dallas Hotel in Dallas, Texas. The yearly event provided ASNT attendees with the opportunity to present and discuss the newest research and technology in non-destructive evaluation and testing. The 331 attendees found presentations and displays from an impressive span of methods and techniques; 44 papers were presented in 12 sessions over three days and 32 exhibiting companies displayed their technologies and services.

Richard Bossi, of the Boeing Company, delivered the keynote address, entitled: 'NDT vision and challenges for the aerospace industry'. He identified the technologies of today, tomorrow and the future and explained their importance in the expanding role of NDT throughout the life of an aerospace vehicle, from production until retirement. Even the technology of tomorrow is beginning to appear regularly in the form of high-volume and high-accuracy techniques, automated data interpretations and more sensitive technology to identify bond quality in composite parts. The challenges faced by the aerospace industry are similar to those faced throughout the NDE/NDT world, as advancing designs and materials require new methods to meet industry needs.

The ASNT Research Award for Sustained Excellence was presented to Roman Maev of the University of Windsor, Ontario, Canada, who gave a presentation entitled: 'Innovation drives quality: new generation of high-resolution imaging technique for material characterisation and NDT in automotive manufacturing'. The new ultrasonic imaging technology he described saves automobile manufacturers money by ensuring the quality of spot welds by creating 3D images of the weld and analyses that image in real time. Maev concluded his talk by looking at some new materials being developed that could change the automotive industry. Attendees particularly enjoyed hearing about cars made from bio-composite materials derived from hemp or bamboo, as well as cars made with fabric skins that store solar energy and can be changed like clothing.

Andriy Chertov, a post doctorate fellow also at the University of Windsor, received the ASNT Research Award for Innovation. He presented his findings on 'Advancements in real-time spot welding process monitoring'. His research led to the development of an

automated spot weld testing system that can be integrated into current spot welding systems. This allows welds to be inspected as they are created, in-line and in real time. There are thousands of spot welds on every car body so information on the quality of the welds is critical during manufacture, saving money and time on inspection and rework.

Overall, the 2012 Research Symposium was a success. ASNT would like to thank the sponsor, Olympus NDT, and all those who helped make it an interactive, informative and beneficial event. The Society hopes that attendees are looking forward to next year's symposium, which will be held 18-21 March 2013 in Memphis, Tennessee, at the famous Peabody Hotel.

Joint Conference: MFPT 2013 and ISA's 59th International Instrumentation Symposium

**13-17 May 2013
Wyndham Hotel Playhouse Square
Cleveland, Ohio, USA**

The 2013 event in the series of Machinery Failure Prevention Technology (MFPT) Conferences will be a joint venture with the International Society for Automation's 59th International Symposium.

The MFPT-organised section of the conference will focus on the development and application of prognostics and health management technologies, and will show how practical technologies can be integrated into a platform or system.

The theme of the conference is 'Sensors and systems for reliability, safety and affordability'. BINDT is a co-sponsor of the event.

The deadline for abstract submission is 1 October 2012 and abstracts (maximum 500 words) should be submitted via the MFPT website at:

www.mfpt.org/MFPT2013/MFPT2013.htm

News from The Brazilian Association for NDT and Inspection

São Paulo hosts Latin America's main NDT event

Considered the number one Latin American non-destructive testing event, the National Congress on Nondestructive Testing, or Congresso Nacional de Ensaios Não Destrutivos (Conaend), took place 16-19 July 2012 in São Paulo, Brazil.

The objective of the Congress, which since 2006 has been held at the same time as the 16th International Conference on Integrity Evaluation and Life Extension of Industrial Equipment, or 16^a Conferencia Internacional sobre Evaluación de Integridad y Extensión de Vida de Equipos Industriales (IEV), is to highlight the primary applications of NDT, inspection, condition monitoring and quality control, particularly in the nuclear, naval, aeronautical, automotive, iron/steel, electrical and oil & gas sectors. This goal was achieved with honours by the 2012 event.

The schedule of events included:

- 18th EXPOEND – Exposição Técnica de Equipamentos, Produtos e Serviços de NDT e Inspeção (Technical Exhibition of NDT and Inspection Equipment, Products and Services).
- 3rd Forum on New NDT and Inspection Technologies.
- 5th National Meeting of Certified Professionals.
- 5th ENDUTOS – Seminar on NDT in Piping.

- 6th Meeting of Level 3 Certified Professionals.
- Professional training and refresher course of short duration.
- Mini-course on pressure vessels according to ASME VIII-1.
- Preparation of ultrasound testing procedures according to ASME section V.

The 30th edition of Conaend also presented a schedule of speeches with some of the most important global specialists in the area. These included Alessandro Demma, Borja Lopez, Cesar Buque and Daniel Felipe Bobrow. Alessandro Demma, from GUL – Guided Ultrasonics Ltd, presented a talk on 'Guided waves: opportunities and limitations'. Physicist Cesar Buque, Global Director of Research and Central Development at Applus RTD, gave a presentation on '3D ultrasound tomography: eliminating TOFD and phased arrays?'. Another noteworthy speech on 'Applications of acoustic pulse reflectometry for the inspection of heat exchangers and boilers' was given by Daniel Felipe Bobrow, PhD in materials science from the Ben-Gurion University. Borja Lopez, President and CEO of Innerspec Technologies, presented 'EMAT – current advances in methodology and applications'.

www.abendi.org.br

CALENDAR OF NDT EVENTS

Month	Date	Venue	Event	Contact
October 2012	29-2 Nov	Orlando Florida, USA	ASNT Fall Conference and Quality Testing Show 2012	conferences@asnt.org www.asnt.org
	30-1 Nov	Seč Czech Republic	42nd International Conference and Exhibition – Defektoskopie 2012	cndt@cndt.cz www.cndt.cz
November 2012	13-15	Augsburg Germany	4th International Symposium on NDT in Aerospace	tagungen@dgzfp.de www.ndt-aerospace.com
	27-30	Okinawa Japan	21st International Acoustic Emission Symposium (IAES-21)	info@iaes21.org http://iaes21.org
December 2012	20-21	Beijing China	International Conference on Advanced Material and Manufacturing Science (ICAMMS 2012)	icamms@vip.163.com www.icamms-conf.org
March 2013	10-15	Perth Western Australia	1st Australasian International Welding, Inspection and NDT Conference (iWIN2013)	events@wtia.com.au www.iwin2013.com.au
May 2013	20-22	Athens Greece	5th International Conference of NDT	prasian@central.ntua.gr / i.prasianakis@gmail.com www.hsntr.gr/IC-MINDT-2013
	20-25	Le Mans France	13th International Symposium on Non-Destructive Characterisation of Materials	info@cnde.com
June 2013	16-18	Kuala Lumpur Malaysia	Malaysian International NDT Conference and Exhibition (MINDTCE 13)	nassir@nuclearmalaysia.gov.my
July 2013	20-21	Singapore	2nd Singapore International NDT Conference & Exhibition (SINCE 2013)	ndtss@live.com.sg www.ndtss.org.sg
September 2013	4-6	Ljubljana Slovenia	12th International Conference on Application of Contemporary Non-Destructive Testing in Engineering	tomaz.kek@fs.uni-lj.si
November 2013	4-8	Las Vegas Nevada, USA	ASNT Fall Conference and Quality Testing Show 2013	conferences@asnt.org www.asnt.org
	18-22	Mumbai India	14th Asia-Pacific Conference on NDT (APCNDT 2013)	bvenkat@igcar.gov.in / presidentapcndt@gmail.com www.isnt.org.in
October 2014	6-10	Prague Czech Republic	11th European Conference on NDT (ECNDT 2014)	www.ecndt2014.com