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AINDT

INDUSTRIAL EYE

THE OFFICIAL JOURNAL OF THE AUSTRALIAN INSTITUTE FOR NON-DESTRUCTIVE TESTING

RADIOGRAPHY ▪ ULTRASONICS ▪ EDDY CURRENT ▪ PENETRANT ▪ MAGNETIC PARTICLE
VIBRATION ANALYSIS ▪ LUBRICATION ANALYSIS ▪ THERMOGRAPHY ▪ ACOUSTIC EMISSION

"Our challenges don't define us, our actions do."
– Michael J Fox

President's Message

Josh Morris

On the 24 of January the newly formed AINDT Board of Directors (BoD) met to elect its office bearers for 2024. I am pleased to share that all position were elected unopposed and as such I'm writing this my first Presidents report for this term.

As many of you know, (for those who have been around a while) this is my second term as President, having served in this role 2012-2014. In that time many things in the industry have changed but what has not changed is the viral role the AINDT plays in ensuring we have a well trained and certified industry.

I am joined on the board by another long-standing member in Ian Hogarth as Past-President. Ian will play a vital role in drawing on his experience to advise the BoD on various matters. It's great that Ian has volunteered his time to serves and be wise head on the BoD.

While relevantly new to the BoD Angelo Zaccari has a wealth of industry experience which we can draw on in his role as Vice-President. He been a member of various industry committees for organisations such as Standards Australia, The AINDT Certification Board and the National Association of Testing Authorities (NATA).

Two brand new Director were also added in January with Glen Haberl and Sam Hallifax being elected as Treasurer and Secretary respectively. Glen understands the industry and is Technical Director at Asset Integrity & Compliance Inspection Services.

Lastly, Sam Hallifax who is experienced in leading and delivering some of the country's largest integrity contracts. He has been a member of the Institute for nearly 20 years and volunteered with the councils for close to 15 years. He also sits on the National Association of Testing Authorities (NATA) advisory committee (Integrity of Equipment and Structures) for nearly 10 years and supports NATA as a technical assessor.

I would like to take this opportunity to thank not just the BoD for volunteering their time but also everyone who donated their time to the AINDT. While we do have paid staff, we cannot effectively function without those who put up their hand to assist at all levels.

I am enthusiastic about what this BoD will be able to achieve this year in conjunction with an incoming CEO. No doubt there will be challenges along the way, but I am confident that we have the experience and expertise to provide competent and stable leadership and governance for the AINDT and the broader industry.

I look forward again to serve the members in the role of President for the second time and interacting with you throughout 2024.

President: Josh Morris
Company: Chevron
Position: NDE SME
Member Since: 2002

Vice President: Angelo Zaccari
Company: Aben Technical

Position: Director
Member Since:2007

Past President: Ian Hogarth
Company: QLD NDT

Position:NDT Level3 SME
Member Since: 2000

Secretary: Sam Hallifax
Company: EnerMech
Position: Operations Manager - Eastern Region
Member Since: 2006

Treasurer: Glen Haberl
Company: Asset Integrity & Compliance Inspection Services
Position: Technical Director
Member Since: 2008

Regards
Josh Morris
President

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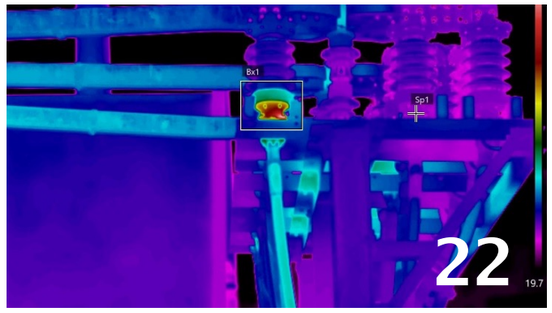

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Manuscripts should be submitted in electronic form:
1. in word
2. typed with single spacing
3. with figures as tif or jpeg files at better than 300dpi

Manuscripts should include:
1. symbols and abbreviations conforming to recognised standards; metric units (SI)
2. references listed, after the text, in the order in which they occur in the paper
3. references indicated in the text by arabic numerals in square brackets
4. tables and figures numbered separately but consecutively with Arabic numerals and brief, descriptive titles
5. a reference in the text to all tables and figures
6. graphs and diagrams made with lines of sufficient thickness to reproduce well
7. titles and address of authors

Procedure for submission of manuscripts:
1. articles should be sent to: journal@aindt.com.au
2. manuscripts will be submitted to referees who will remain anonymous
3. reprints of each paper will be supplied free to the author

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CEO Message

Stuart Norman

I recently watched the award-winning documentary STILL: A Michael J. Fox Movie. To set the scene, I have always in been awe of Michael J. Fox. When I was in primary school, I even asked my mum if I could change my name to Alex, in honour of his hilarious character Alex P. Keating in the sit-com Family Ties. After enjoying all of Michael's movies in the 80s, I then fell in love with his character Mike Flaherty in the TV show Spin City.

During the filming of Spin City, Michael announced to the world that he had been diagnosed with Parkinson's disease. My grandmother had Parkinson's disease and I slowly watched her deteriorate over 15 years until she passed away. Not long after Michael was diagnosed, and he had finished up his time on Spin City, he wrote a biography Lucky Me. To this day, it is still the best biography I've read, and I recommend it to anyone.

Given my long-term love of Michael, when the documentary STILL was released, I was eager to watch it. I can see why it received four Emmy Awards including Outstanding Documentary.

As a child Michael was never still. He was always on the move and into all sort of mischief. The ironic aspect of all of this—and the main theme of the documentary—is that Michael was never still in his life until physically he could never be still.

In one of the early scenes, Michael is filmed during one of his occupational therapy sessions. While working with his occupational therapist (OT), Michael consistently loses his balance and falls over after his fifth or sixth step. He's frustrated that his condition is preventing him from moving forward.

Yet it wasn't Michael that impacted me—it was his OT. After three or four steps, his OT would say 'reset'. He would then remind Michael that he can't take that sixth or seventh step until he resets.

This scene really struck me. It illustrates perfectly that, no matter what has occurred in the past, there is often the need to be still and reset.

AINDT recently held an Extraordinary General Meeting (EGM) during which a new Board of Directors was appointed, a motion was passed to review the institute's governance and supporting documentation, and a new CEO was appointed. It is the perfect time for us to reset.

As in the documentary, a reset does not mean we are not doing anything. Rather, it is a time to prepare ourselves for the next steps.

AINDT has come a long way from being completely administered and managed by volunteers. It is my view that we have matured quite quickly, which brings with it its own unique challenges. These challenges include governance, operations, and ensuring that the expectations of members and other stakeholders are met.

In working with the Board of Directors and meeting various members at Branch meetings, it has struck me just how many people are prepared to assist the institute in moving forward. This does not mean we don't look back and reflect—this is a big part of any reset. As the OT said to Michael: your reset is not just about moving forward, but about acknowledging the progress that you have already made.

In the documentary, the OT takes Michael out onto the street to put his exercises into practise. Without giving too much away, Michael walks up the footpath. He says hello to a few people he knows, take five or six steps, and then proceeds to fall over.

As AINDT embarks on a reset, our intention is to continue putting one foot in front of the other.

But, there is a real possibility that we may stumble. I hope that, like Michael, there will be people to help pick us up and move forward without falling over. What both AINDT and Michael need is constructive support rather criticism. What Michael needed (and we do too) is to for people to either move aside, or come along for the ride and help us achieve our goals.

In this, my first CEO piece, I'd like to thank those who have already generously given of their time to welcome and assist me as we look to reset and take the steps required to move forward.

Best Regards
Stuart Norman
CEO

From the Certification Board

Keith Arcus

Dear members and certificate holders, I hope you are all safe and well in these interesting times.

In this edition of the column, I am announcing my return as Chairman of the AINDT NDT Certification Board. Mr Barry Cooper is standing down from the Chairmans position due to an increased workload in his real job. Barry shall be continuing as a member of the Board.

I would also like to welcome Stuart Norman as CEO of the AINDT. This is a refreshing change after the last several months with out a manager in the federal office.

During this period the office staff have worked above and beyond to keep the certification system ticking over. I want to thank Uma, Juandri, and Hanain for their excellent work.

It has been a busy time for the NDT Certification board with auditing of AQBs and updating the quality system.

When processing applications for certification, renewal of certification, and recertification, many applications when first received are incomplete. I recommend a thorough read of the AINDT Guide to Qualification and Certification Non-Destructive Testing. Complete and correct applications can be processed quickly contributing to our average application turnaround time of 8 days.

I look forward to processing many complete applications in the future.

Best Regards
Keith Arcus
Chairman - AINDT NDT Certification Board

Condition Monitoring Certification Board (CMCB)

Dana Lake

What does a Condition Monitoring professional actually do?

(Something on the lighter note of our serious business)

When starting my carrier in Condition Monitoring / Vibration analysis I was often asked by friends: What do you actually do? That could be answered in simple words but still on a professional level.

However, when the children asked me the same question for a school assignment about their parent's work, I had to think how to answer.

At that moment I became a Machinery Doctor.

I explained:

When machines start behaving in an unusual way, we use certain technologies to find out what is wrong with them.

When people go to the doctor, the doctor checks temperature – we use machinery thermometers (Thermography) to check the temperature pattern on the machine to see what is hot and needs to be analysed to identify the reason.

The doctor may take a blood and urine sample to check if they contain any substances that would indicate a problem – we take an oil sample to check the same. Is there anything in the oil that should not normally be there? If yes, we must answer – why?

And the doctor checks blood pressure and listens to the heart's beating pattern to check if there is anything abnormal – we record the vibration pattern to look for any abnormal signals. Different faults (illnesses) produce different signals in the pattern allowing us to very accurately identify the problem, and recommend ways to fix it.

So, we are Machinery Doctors.

Dana Lake
AINDT CM Certification Board

Membership registrar

Hi AINDT members,

It has been a very challenging period for the AINDT institute following the Board of Directors (BoD) election process issue during the AINDT AGM held in Oct 2023.

Initially, nominations for the BoD's were distributed to all ordinary and honorary AINDT members with 14 applicants received.

On the 18th Dec 2023 all Federal Councillors (FC) met to review the applicants based on their ability to devote time to the AINDT, current experience and potential conflicts of interest. This number was reduced to 6 candidates and each FC member sent their selection of candidates to the Independent Selection Officer by COB 18th Dec 2023. Due to the candidate number the FC provided their 5 delegates to the Independent Selection Officer by the 12th Jan 2024 with data collated and communicated.

During this period AINDT announced the new CEO Stuart Norman who would be overseeing the EGM with support from the Federal Secretariat.

The EGM was held on the 15th Jan 2024 in line with the AINDT constitution under the control of the AINDT CEO. The meeting outcomes are as follows:

- Provide all attending AINDT Ordinary and Honorary members with results of FC BoD candidates.
- Ratification of the five successful BoD candidates.
- Federal Secretariat to notify all AINDT Ordinary and Honorary members of results.
- Action 1 – Voting process of BoD Board (in favour of election process used).
- Action 2 – AINDT current process and procedure review (in favour of full review of all AINDT procedures based on the last six months unprecedented events).
- Q&A.

I would like to thank the interim BoD, FC members, Federal Secretariat and new CEO for their ongoing efforts during this time.

Kind regards
Craig Taylor
AINDT Membership registrar

AINDT Federal Councillors, Certification Board Members and Convenors of Committees of Federal Council 2023 – 2024

The AINDT constitution requires that each branch nominates councillors to Federal Council, depending on the size of branch membership (i.e. for 20–100 members, 2 representatives; 101–200 members, 3 representatives; and over 200 members, 4 representatives).

The AINDT constitution also gives Federal Council the power to appoint committees to which it can delegate responsibility, to propose policy and perform specific functions.

The two main committees of Federal Council are the Executive Committee; comprising of the Federal President, Federal Secretary, Federal Treasurer, Immediate Past Federal President, Federal Vice-President and Secretariat Liaison, who make decisions on routine matters and any specific matters delegated by the Federal Council and Certification Board, which is responsible for certification scheme.

Following the recent Extraordinary General Meeting the newly appointed AINDT Board of Directors met where office bearers were elected. AINDT is pleased to state that all positions were unanimously adopted.

FEDERAL COUNCILLORS

Board of Directors
President: Joshua Moris
Immediate Past President: Ian Hogarth
Vice President: Angelo Zaccari
Treasurer: Glen Haberl
Secretariat Liaison: Samual Hallifax

New South Wales Branch
Darren Quinn
Neil Burleigh
Stuart Smart

Victorian Branch
Paul Trigg
Pranay Wadyalkar
Miro Katouzi

South Australia Branch
Craig Taylor Membership Registrar
Jordan Beinke
Luke Jones
Tyson Jenke

Queensland Branch
Ian Hogarth
Jim Tibani
Roger Hardy

Western Australian Branch
Colm Kinsella
Mike Needham
Derek Bruns

NDT CERTIFICATION BOARD

Chairman: Keith Arcus
Honorary Secretary: Victor Mierzwa
Vice Chairman: TBA
Nata Rep: Diane Hobday
Member: Angelo Zaccari
Training Provider: Mark Welland
Welding Rep: Bruce Ham
NANDTB Rep: Rodd Smith
Non-Voting member: Stuart Norman

CM CERTIFICATION BOARD

Chairman: Shawn Moore
(IRT Professional/Commercial Provider)
Honorary Secretary: Dana Lake (VA Professional)
Vice Chairman: Paul Rand (VA Professional)
IRT Application/Exam Panel Chairman: Erik Thorup
(IRT Professional/Commercial Provider)
Member: Joshua Morris (CM Professional)
Member: Daniel Campbell (IRT Professional/Commercial Provider))
Member: Guy Salathiel (VA Professional/End User)
Member: Sarel Klopper (VA Professional/End User)
Member: Salah Attia (VA Professional/Training Provider)

AOG Energy Exhibition and Conference

The AOG Energy Exhibition and Conference returns this year energised for the future. Bringing the energy sector together for three days of collaboration, delegates will discuss the challenges and opportunities presented by the transition, and work toward a decarbonised future.

Based in Perth, AOG Energy sets itself apart, with strong support from government, project operators, and global industry players.

AOG Energy includes a world class conference programme. The three dedicated theatres will cover the entire value chain, with deep dives into wind power, renewable energy sources – including carbon capture and storage (CCS) – and strategic keynotes providing insights into how the industry is progressing environmental resilience and sustainable outcomes.

Respected experts from across the global supply chain will be speaking at the conference. Some of the contributors include Dr Matthias Raab, Rebecca Tomkinson, Neil Gordon and Orla McSharry.

This year, AOG Energy will focus more than ever on connecting people, with 200+ exhibitors in attendance, including 30 per cent from overseas. The global showcase will span smart tech, innovation, engineering solutions and more across the entire energy supply chain. AOG Energy presents an invaluable networking opportunity to connect both global and local markets and promote WA as an attractive investment location.

The Diversity & Inclusion Breakfast this year will explore the topic of 'What's my age again? Cultivating a future without bias'. The concept of generational diversity, intergenerational collaboration, lifelong learning, career transition, mentorship, and ageism. Dr Tom Verghese will be joining the D&I Breakfast as the keynote speaker.

The event will also see the return of Subsea Welcome Drinks reception and a series of networking events.

Commenting on AOG Energy 2024, Hon. Roger Cook, Premier of Western Australia said:

"We are looking forward to welcoming more than 6,000 attendees from nearly 40 countries to Perth for the 2024 AOG Energy Conference."

"The State Government is committed to helping promote the participation of local small and medium enterprises in major projects and generating opportunities for Western Australian energy companies to participate in global supply chains."

Engagement of this size will position WA, and the nation, as a global leader in the continued development that are integral to forming the industry collaboration required to accelerate the energy transition.

Australian Government and WA Government representatives will be in attendance, as well as keynote speakers from AOG Energy sponsors including the Department of Jobs, Tourism, Science and Innovation, Woodside and Chevron.

Register here today:
aogexpo.com.au/conference/knowledge-forum

Member List

November 2023

The AINDT is a national peak body that promotes the professional practices of non-destructive testing and condition monitoring personnel. Our mission is to provide members, industry and the community with an independent and professional level of service in relation to the science and practice of non-destructive testing.

Through the State Branches and Federal Office, the AINDT aims to be an efficient and effective technical society by operating as a recognised notification body and providing membership to individuals, companies and government bodies who wish to keep informed or have an interest in non-destructive testing, engineering, or materials and quality testing in general.

AINDT provides businesses with the opportunity to be recognised as a contributor of this professional Institute by becoming a Company, Corporate or Sustaining member. By holding such membership, companies can benefit from advertising opportunities, heightened support, staff certification control and much more.

We would like to thank the following companies for their valued support:

SUSTAINING MEMBERS

ATTAR
D R May Inspections
EnerMech
SRG Industrial Pty Ltd
Intertek

SUPPORTING MEMBERS

Chevron

CORPORATE MEMBERS

Azure NDT Quality Services Pty Ltd
Chemetall (Australasia) Pty Ltd
Evident Australia Pty Ltd
Hofco Oilfield Services
IRISNDT
OMS Engineering Pty Ltd
SafeRad SE Asia Pty Ltd
TR Pty Ltd

COMPANY MEMBERS

NSW

ARL Laboratory Services Pty Ltd (Yennora)
AXT Pty Ltd
Barry Evans Lifting World
Bluescope Steel (Port Kembla)
ENDETEK
Hot Engineering
HVT Inspection Services
Magnetic Analysis Aust Pty Ltd
NBQC & Inspections Services
NDT Equipment Sales Pty Ltd
Nobel Engineering Services
Reliance Hexham
RPG Australia
Russell Fraser Sales Pty Ltd
Simplifi Nii P/L
SmartChem Industries Pty Ltd
Sonix NDT Pty Ltd
Thermal Imaging Services (AUS) Pty Ltd
International Tube Testing Pty Ltd
Lucas Drilling
Metal Testing Pty Ltd
M-Test Mackay
Queensland Alumina Limited
Testing Inspection and Calibration Services

QLD

AXS Pty Ltd (Mackay)
Equipment Direct International

VIC / TAS

ABEN Technical Services
ATCL
Defence Science and Techology Organisation (DSTO – Fishermans Bend)
Gippsland NDT Services Pty Ltd
LMATS Pty Ltd (Williamstown)
NATA
OMS Software Pty Ltd
QENOS
Shantou Institute of Ultrasonic Instruments Co Ltd
Shimadzu Scientific Instruments(Oceania) Pty Ltd
Stocks and Partners Ltd

SA / NT

ASC Pty Ltd
Kuzer Technical
Red Earth NDT Pty Ltd

WA

Applecross Electrical & Testing Service
Asset Reliability Inspections Pty Ltd
Assurity NDT & Consulting
Australian Institute of Maintenance Engineering
GoldFields NDT
Hofmann Engineering
ICM Training Solutions
Integrity Engineering Solutions
MJ Engineering Inspection Services (Welshpool)
NDT Instruments Pty Ltd
Vertech
Weld Integrity
Wood – Asset Performance Optimisation

WA Branch News

Looking to start 2024 off with an optimistically full schedule for the year, the WA Branch is hard at work co-ordinating the upcoming calendar of events. We will continuously review and add events throughout the year to bring members together and to engage in further knowledge sharing throughout our industry.

We will ensure plenty of time and advertise technical events as we progress throughout the year, so please keep a lookout in your inboxes, the journal and on the AINDT website for invites and further details.

Upcoming events in WA:

- **Technical Evening** – HydroFORM2, RollerFORM, FlexoFORM, Conveyor Belt Inspection Software and PAUT Wednesday 21st February, 5:30pm to 7:30pm @ Bureau Veritas, 6 Gauge Circuit, Canning Vale, WA.
- **AOG Knowledge Forum** – 13th – 15th March @ Perth Convention & Exhibition Centre
- **Energy and Mining Collaboration Speed** – Networking 2024 – 7th May 2024

WA Branch Councillors will be manning the AINDT stand for the duration of AOG 2024 which is a great opportunity to introduce yourself and get engaged with AINDT activities.

The high level of technical evenings is set to continue with the WA branch announcing a technical programme for the upcoming year. Members are encouraged to attend as numerous benefits can be obtained. We hope to see you at a technical evening soon!

WA Branch Technical night

Just Quick Reminder for AINDT WA Branch Free technical night Session: HydroFORM2TM, RollerFORMTM, FlexoFORMTM, Conveyor Belt Inspection Software and PAUT

When Wednesday 21st February 2024
Start: 5:30PM – 7:30PM
Location: Bureau Veritas, 6 Gauge Circuit, Canning Vale, WA

Please register through the link:
https://aindt.com.au/Events

Do not this opportunity. Hurry up and book your place before it gets full.

QLD Branch News

Season's Greetings and Celebratory Connections at AINDT QLD

The festive season brought a wave of joy and camaraderie to the AINDT Queensland branch, culminating in our much-anticipated Christmas gathering on December 7th. This event was a delightful showcase of our community spirit and professional enthusiasm. In the heart of Brisbane City, members enjoyed an array of seasonal refreshments and engaging conversations. The event served as a fantastic platform for networking, sharing experiences, and discussing the latest trends and innovations in our industry.

Reflecting on the past year, our branch has seen remarkable growth and engagement, a testament to the dedication and passion of our members. Several technical events, along with our Christmas gathering, underscored our commitment to continuous learning and excellence in NDT practices.

A Special Thank You for a Successful Tech Night in Gladstone

Adding to our momentum, we have kick-started the year with remarkable energy and enthusiasm, highlighted by the success of our informative tech night, establishing a proactive momentum for the promising year ahead!

We extend a special thank you to Steve Kennedy from Queensland Alumina Limited (QAL) for hosting our recent technical night at the QAL Boyne room in Gladstone. The event, held on January 23rd, revisited the "Mastering Ultrasonic Testing Calibration" session led by Hamed Madani. Hamed's expertise provided our members with an invaluable learning experience, focusing on critical techniques such as constructing DAC curves and TCG, along with calibration tips.

We appreciate the active participation of our members, who brought their enthusiasm and tools, contributing to a practical and interactive session. This event exemplifies our dedication to skill enhancement and knowledge sharing in the field of NDT.

Looking Ahead to 2024

Our branch is enthusiastic about the upcoming year, ready to embrace new opportunities and continue our commitment to growth and excellence in the NDT field. We encourage all members to actively contribute their thoughts and energy in shaping our future initiatives.

More exciting plans in 2024 and beyond! Our next tech night will be by Evident, Sean Fogarty and the great team is finalizing the date, stay tuned!

Your involvement and support are the pillars of our branch's success. For any suggestions or contributions to our upcoming projects, we welcome your input.

Warm regards,
QLD Branch Committee

QLD Branch Members at their Christmas gathering.

Hamed Madani presenting Tech Night at QAL Gladstone.

Attendees at Tech Night @ QAL Gladstone.

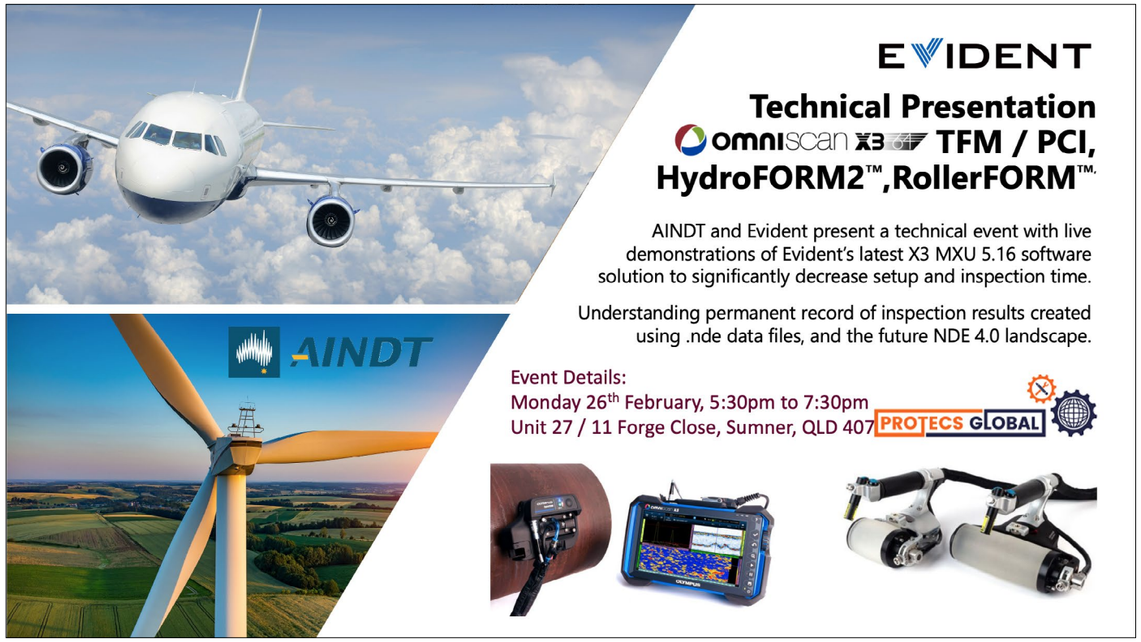
QLD Branch Technical night

AINDT QLD Branch and Evident Is excited to announce the free technical event : Technical Presentation Omniscan x3 TFM/PCI HydroFORM2TM, Roller FORMTM

When Monday 26th February 2024
Start: 5:30PM – 7:30PM
Location: Protec Global – Unit27/11
Forge Close Sumner QLD 4074

Please register through the link:
https://aindt.com.au/Events

Hurry up! Do not this opportunity and book your place before it gets full.



VIC Branch News

Excited to attend the Victorian Branch Xmas/New Year's Party at the Collingwood Children's Farm in Abbotsford, It was a beautiful day, and the sun made an appearance. The farm was bustling with activity, admiring the beautiful scenery and the friendly animals.

Overall, it was a great experience to come together and start the New Year off. Thankyou to the organizers for putting together such a wonderful event.

As we embark on this new year, we are looking forward to meeting new members and engaging in upcoming Tech nights.

Happy New Year!

Collingwood Children's Farm.

NSW Branch News

HVT Inspection Services' Volunteer Christmas Party Lunch

In the heart of the holiday season, Karen and Paul Ashby, the dynamic duo behind HVT Inspection Services, orchestrated a AINDT Christmas party lunch which fulfilled its promise to be a festive affair filled with warmth, joy, and community spirit. The event was not only a testament to the Ashbys' commitment to generosity but also an opportunity for special attendees, including the esteemed Peter Sheedy, Col Hockings, Henry Urbanski, James Hobbs, Branch Councillors, and their partners to join hands in spreading holiday cheer.

The Sheedy's well known for their many years of support to AINDT with prospective students continuing to study from the textbooks Peter has written. Their commitment to making a difference aligns seamlessly with the Ashbys' vision for a Christmas celebration that extends beyond personal joy to embrace the joy of giving back.

The guest list was also graced by special attendees, including Mr. and Mrs. Hockings, whose longstanding support for community initiatives have made them local legends. Their presence at the event is a testament to the widespread support towards for the AINDT which they have maintained for many years after all Colin's time volunteering with the institute.

The current Branch Councillors and their partners, pillars of the local NSW branch, also attended, further highlighting the support for the Christmas party lunch. Their participation adds a touch of official

endorsement to an event grounded in the grassroots spirit of volunteerism.

Adding a dash of charm to the guest list were the Hobbs's and the Urbanski's, who brought their unique perspectives and vibrant personalities to the festivities. Their attendance is a symbol of the diverse tapestry that makes up the community, coming together to celebrate the holiday season in unity.

As our AINDT community gathered for this special occasion, the true spirit of Christmas came to life through the generosity of Karen, Paul and HVT Inspection Services and the collective goodwill of the special attendees. Together, they embody the essence of the season—unity, compassion, and the joy of giving.

VIC Branch Technical night

AINDT Vic branch would like to invite you all for the free tech night.

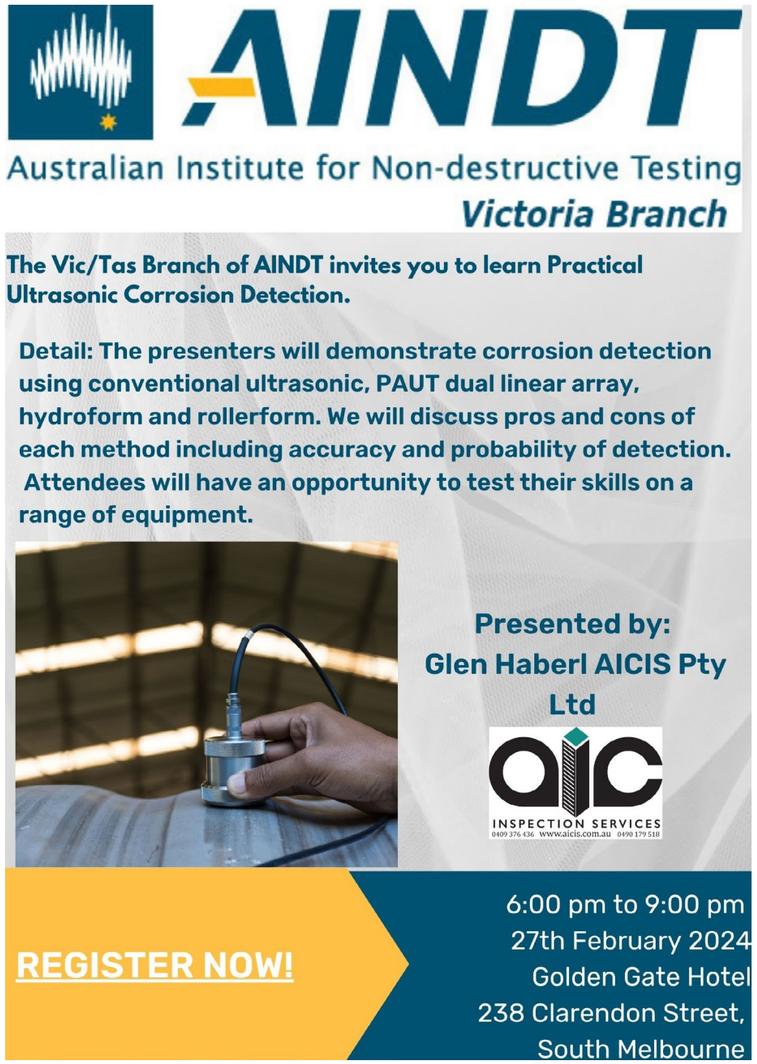
Detail: The presenters will demonstrate corrosion detection using conventional ultrasonic, PAUT Dual linear array, Hydro form and roller form. We will discuss pros and cons of each method including accuracy and probability of detection.

Attendees will have an opportunity to test their skills on a range of equipment.

Presented by: Glen Haberl AICIS Pty Ltd and Paul Trigg, Evident scientific.

Where Golden gate hotel, Clarendon St South Melbourne
Date 6pm to 9pm Tuesday 27th Feb

For Registration please click the below link
https://aindt.com.au/Events/EventId/1115/e/aindt-vic-technical-session-practical-ultrasonic-corrosion-detection-27-feb-2024



SA Branch News

SA Branch Year End Celebration

On Friday the 24th November the SA Branch held their end of year celebration at the charming British Hotel. It was a festive evening of merriment and good cheer, a great way to close off a busy and hectic year where we raised a glass to all the NDT/CM success and have a laugh with colleagues we may seldom see outside a work place.

It was decided to hold the Christmas drinks get together in place of the November meeting as they were scheduled so close together and was a great way to see the end of November out and the start of December.

It has been a good year for the SA Branch and council would like to wish all our members, members families and colleagues a merry Christmas and a prosperous new year for 2024. To all those who have taken time to attend meetings, gave feedback and for all those unseen efforts which support the branch we thank you; you make the branch fantastic.

Looking forward to 2024 there are branch and technical meetings in the pipeline, always a great way to meet-up and gain CPD points, not to mention the AGM to look forward to.

Stay safe, enjoy a break and we will see you for the next chapter in our exciting journey through NDT and CM.

Regards
Simon Wilding
SA/NT AINDT Branch President

AQB Availability

AINDT examinations are available through a network of AINDT Authorised Qualifying Bodies (AQBs) as well as the two scheduled AINDT exam rounds.

AQB's are free to offer AINDT approved training and initial/recertification examinations in any Australian state at any time throughout the year. The scheduled AINDT examination rounds are conducted twice yearly (normally June and November) with dates being advertised in both the *The Industrial Eye* and the AINDT e-newsletter.

Whilst AINDT makes every effort to notify certificate holders of expiry of certification, it is the certificate holders responsibility to initiate the renewal & recertification process prior to expiry of certification (late fees apply to late certification applications).

Listed below are the AQB's for which AINDT has authorised to conduct AINDT examinations and the AINDT examination.

South Australia

Kuzer Technical

Contact: David Suede
Phone: 1300 199 086
Email: info@kuzer.com
Schedule: kuzer.com/schedule/

NDT Methods Levels Industry Sectors offered:

Ultrasonic Testing 1, General Engineering
Ultrasonic Testing 2, Welds
Radiographic Testing 1,2 Welds
Magnetic Particle Testing 1,2 Multisector
Penetrant Testing 1,2 Multisector
Visual/Optical Testing 2 Multisector
Phased Array Ultrasonic Testing 2 Multisector
Eddycurrent Testing 2 Multisector

Victoria

ATTAR – AQB – Advanced Technology Testing and Research

Contact: Mark Welland
Phone: 03 9574 6144
Fax: 03 9574 6133
Email: training@attar.com.au

NDT Methods Levels Industry Sectors offered:

Computed & Digital Radiography 2, 3
Ultrasonic Testing 1,2,3 Welds, Casting, Wrought, Aerospace, Thickness
Radiographic Testing 2,3 Welds, Casting, Aerospace
Magnetic Particle Testing 1,2,3 Multisector, Aerospace
Penetrant Testing 1,2,3 Multisector, Aerospace
Eddy Current Testing 2,3 Multisector, Aerospace
Magnetic Flux Leakage 2
Tank Bottom Testing
Phased Array levels 2 & 3 Ultrasonics 2 Multisector
Visual/Optical Testing 2 Multisector
Time of Flight Diffraction (TOFD) levels 2 & 3 Welds
Heat Treatment
ISO 9712 UT Level 2 Corrosion/Erosion – Detection and Mapping (CDM)
Limited Certification

Western Australia

ATTAR – Advanced Technology Testing and Research – Authorised Examination Centre

Contact: Mark Welland
Phone: 1300 139 155
Email: training@attar.com.au

NDT Methods Levels Industry Sectors offered:

Computed & Digital Radiography 2, 3
Ultrasonic Testing 1, 2,3 Welds, Casting, Wrought, Aerospace, Thickness
Radiographic Testing 2,3 Welds, Casting, Aerospace
Magnetic Particle Testing 1,2,3 Multisector, Aerospace
Penetrant Testing 1,2,3 Multisector, Aerospace
Eddy Current Testing 2,3 Multisector, Aerospace
Magnetic Flux Leakage 2
Tank Bottom Testing
Phased Array levels 2 & 3 Ultrasonics 2 Multisector
Visual/Optical Testing 2 Multisector
Time of Flight Diffraction (TOFD) levels 2 & 3 Welds
Heat Treatment
ISO 9712 UT Level 2 Corrosion/Erosion – Detection and Mapping (CDM)
Limited Certification

SRG Training Academy

Phone: 08 9232 0300
Email: trainingacademy@srgglobal.com

NDT Methods Levels Industry Sectors offered:

Ultrasonic Testing 1,2 Welds
Magnectic Particle Testing 1,2 Multisector
Penetrant Testing 1,2 Multisector
Phased Array Ultrasonic Testing 2 Multisector

Queensland

SRG Training Academy

Phone: 07 3816 5500

NDT Methods Levels Industry Sectors offered:

Ultrasonic Testing 1,2 Welds
Magnectic Particle Testing 1,2 Multisector
Penetrant Testing 1, 2 Multisector
Phased Array Ultrasonic Testing 2 Multisector

Protecs Global

Contact: Hamed Madani
Phone: 07 3492 9213

Ultrasonic Testing 1 (General Engineering), 2 WeldsMagnetic Particle Testing, 2 Multisector
Penetrant Testing, 2 Multisector

Condition Monitoring Training Centres

The below training providers offer training in one or more Condition Monitoring methods, categories and industry sectors.

This training program has received approval from the AINDT as it aligns with the national syllabi as endorsed by the AINDT Certification Board.

To ensure comprehensive understanding, learners are advised to obtain a copy of the training module (syllabus) from either the training body, or by downloading from the AINDT website, when undertaking training in an CM method or industry sector module.

For Certification applicants, it is mandatory to successfully complete the training program and training hours as specified in ISO18436 to fulfil the corresponding CM Method, Category and Industry Sector.

All examinations are administered by the AINDT.
For examination dates and other pertinent information, please reach out to the federal office.

CM Training Centre Locations:

Victoria

Industrial Precision Instruments
Unit 12, 634-644 Mitcham Rd Vermont
Victoria 3133
Phone: +1300781701
Email: training@ipi-inst.com.au

University of Melbourne
Parkville
Victoria 3010
Phone: +61 3 9810 3348
Contact Email: claudine.evans@unimelb.edu.au

SKF Reliability System
SKF Australia Pty Ltd 17-21 Stamford Rd
Oakleigh, Victoria 3166
Phone: +61 3 9269 0763
Contact Email: laszlo.Csernatony@skf.com

Wood - Asset Performance Optimisation
Level 3, 171 Collins Street
Melbourne, Victoria 3000
Phone: (08) 6314 2000 / (08) 6314 2280
Email: svt.bu.training@woodplc.com

Western Australia

ICM Training Solutions
45 Delawney Street
Balcatta, WA 6021
Phone: 0419 993 233
Contact Email: rainingacademy@icmt.com.au

SRG Training Academy
109 Bannister Road, Canning Vale
Western Australia 6155
Phone: 08 9232 0300
Email: trainingacademy@srgglobal.com

Wood - Asset Performance Optimisation
Level 1, 240 St Georges Terrace
Perth, Western Australia 6000
Phone: (08) 6314 2000 / (08) 6314 2280
Email: svt.bu.training@woodplc.com

Queensland

Advanced Infrared Resources Australia AIRA
PO Box 372 Hervey Bay
Queensland 4655
Phone: 0467 565 836
Email: jeff@irtau.com.au

SRG Training Academy
7 Brisbane Road Riverview
Queensland 4303
Phone: 07 3816 5500
Email: training@mcsturbo.com

Wood - Asset Performance Optimisation
Level 20, 127 Creek St
Brisbane, Queensland 4000
Phone: (08) 6314 2000 / (08) 6314 2280
Email: svt.bu.training@woodplc.com

Mike 'Trinny' Trinidad - Eulogy


Mike 'Trinny' Trinidad

Dear NDT/ Inspection fratenity, (if you are not aware), our dear friend Mike 'Trinny' Trinidad passed away in the early hours of Sun the 28th of Jan 2024. Mike initially joined the Army in 1986 where he moved into NDT graduating from RAAF NDISL in 1991 and completed his OJT at RAAF Richmond. From there he served at 5AV Army regiment, where he performed duties as an ACFT NDT Tech. He left the Army in 1993, where he joined WA School of Mines, NDT Sect. Technical Controller and NDT Manager.

From 1996 to 1998 Mike worked for International Refinery Services (IRS) in Singapore and Thailand, mainly Inspecting AST Bulk Storage tanks as an API 653 Inspector thoughout SE Asia, in 1999 Mike took up a position as L3 NDT Manger for the Taipei 101 Financial Centre Building. Then in 2001 Mike moved back to S.E.Asia and took up a position as Business Development Manager with IRS in Brunei and Singapore where he was heavily involved in implementing Long Range UT, revising the ISO 9001, 14000 and 18000 systems to obtain certification with BVQI, as he also wore the QA Manager, HSE office and NDT Level 3 hats for the business.

In 2004 Mike headed up the expansion of HMT Tank Inspection Services in SE Asia where with his contacts within the American military he ended up working in places like Japan, Diago Garcia, Qatar and Sudan whilst at the same time overseeing the day to day of the business growth in Singapore and assisting the branch in Thailand.

2006 saw Mike move into a new phase of his carreer working with TWI S.E. Asia in Malaysia as a Senior Consultant and managing the examination, admin & logistics of the training and examination side of the business where he also developed training for API 510, 570 & 653 globally and played a part with TWI (UK) in providing training for API 579, 571, 580 and 581. During his time in Malaysia he briefly work with Rosen as a Senior Technical Advisor before returning to TWI S.E. Asia where his expertise in API inspections had him working on high profile projects for TWI like the post-earthquake assessments on Japan on US military bases.

In 2016 Mike then returned to Australia putting his high flying internation career on hold to look after his parents. Initially working for Maritime Inspection Services as their NDT Level 3 he then moved onto LMATS in 2018 as their Asset Integrity consultant where he showed extraordinary understanding of metallurgy, asset maintenance, and the advanced technologies available in the inspection field. His knowledge wasn't merely academic; it was deep, practical, and always at the cutting edge and was a key figure promoting the use of Phased Array technology within the rail industry. He finished his career at Asset Management Engineers before his failing health made him take a step back from the industry that he loved.

He always had a heart of gold, helping who ever he could. He will be remembered for his passion to get the work done, correctly and with unwavering integrity. Mike has left an impression on all peoples life he touched and will not be easilly forgotten, he was a man when he set his sights on something he attacked it like a bulldozer.

His legacy, is not only his observed generosity, passion and excellence for his work, but his spirit of contribution, that will continue to inspire and guide us. Rest in peace Mike, you will be missed but never forgotten.

Imputfor this Uligy came from Mike's friends Luis Carro, Ben Notenboom, Steven Francis, Ernesto Moskini & Jignesh Dhimar.

Standards News

Standards work continues to move forward in many areas and it is expected that this year will continue the same where focus will be on areas such as Acoustic Emission, Thermography and other advanced testing methods.

MT007 will look to be having a number of committee meetings this year with a view of looking at these Standards being developed by ISO and also that may need reconfirmation and work being conducted within ISO.

Recently two MT007 Committee members Erik Thorup; and David Rice volunteered to join the Thermography ISO Committee ISO/TC 135/SC 8/WG 1. Standards Australia have nominated both Erik and David as the Australian members on this ISO Committee.

As ISO Standards tend to make more of an impact within Australia it is of importance that we continue to nominate and take positions on the ISO Committees and within working groups.

The Chair of ISO Committee Visual Acuity WG10, Darcy Corcoran retained this position after voting and will continue in the Chairs role for another three years.

A proposal has been submitted for the revision of AS3978 which is expected to commence this year with the draft version potentially available around mid-year. Information will be provided, however please ensure if you have interest in this Standard that you check Standards Australia for the public ballot notice.

Although not an area generally covered it has been brought to AINDT's attention that a number of Australian Welding Standards have been or may be reviewed completely. One area of interest for many is "roles and responsibilities" for Welding Inspector and Supervisors in particular Qualifications. If this is an area of interest to you, be sure to check Standards Australia and when they are open for public ballot.

ISO ballots and voting undertaken by MT007 Committee members include.

1. ISO 19835:2018: Non-destructive testing — Acoustic emission testing — Steel structures of overhead travelling cranes and portal bridge cranes.
2. ISO/FDIS 24489: Non-destructive testing — Acoustic emission testing — Detection of corrosion at atmospheric and low-pressure metallic storage tank floors.
3. ISO/FDIS 24367 – Non-destructive testing — Acoustic emission testing — Metallic pressure equipment

Standards Australia MT007 Committee Members have been notified that ISO Standards being continually developed are.

1. ISO/TC 135/SC 7 – Personnel qualification — Project: ISO/TS 11774:2011: Non-destructive testing. Performance based qualification.
2. ISO/DIS 24367: Non-destructive testing — Acoustic emission testing — Metallic pressure equipment.

Please contact me using the details below if you have any questions or require further information and I will reply at the first opportunity.

Angelo Zaccari
MT007 Standards Chairperson
azaccari@aben-tech.com.au

AICIP

The AICIP examination enrolments have opened for the March 2024 round. Please visit the following link to enrol https://inspectors.aicip.org.au/

EXAMINATIONS

Dates and fees

Exam Papers	National Locations	Dates (March)	Dates (September)	Time
Exam Enrolment Deadline	Nationally**	16th February 2024	16th Aug 2024	No Enrolments after this date APPLY HERE.
Exam Onboarding Deadline	Nationally**	13th March 2024	11th Sep 2024	No Onboarding on day of exam
ISI paper A & B - Theory	Nationally**	14th March 2024	12th Sep 2024	AM - PM
ISI paper E – Practical*	Nationally**	15th March 2024	13th Sep 2024	AM
SISI Paper C & D - Theory	Nationally**	15th March 2024	13th Sep 2024	AM - PM

Additional dates for the exams may be added/deleted depending upon the applicant interest.
** Nationally – Sydney, Adelaide, Brisbane, Melbourne, Perth and *Darwin.
* Darwin applicants, please note, for the exams to run, there needs to be a minimum amount of enrolments, therefore candidates may need to opt for a different region to sit their exams. Candidates will be notified accordingly.

In-Service Inspector (ISI) – Pressure Equipment : Sit Papers A, B & E	Senior In-Service Inspector (SISI) – Pressure Equipment : Sit Papers C & D
$885.00	**$495.00**

Suggested Prior Attributes Of Candidates

There are no prerequisites, prior qualifications, training and / or experience specified for ACIP in-service inspectors' examinations. However, candidates with insufficient industry experience will have difficulty passing the theoretical Paper B and practical Paper E.

To have a reasonable likelihood of demonstrating the required competency and passing the ISI examinations (and to limit cost), it is strongly recommended that applicants have at least the following.

- Qualifications – Year 12 High School, a trade certificate or equivalent knowledge
  - Knowledge of common pressure equipment types and terminology used in Australian standards.
  - Basic Mathematics ability e.g. to calculate the volume, thickness and hoopsters of a cylinder.
- Training – 100 hours format, self or on-job training in pressure equipment inspection and AS/NZ3788.
- Experience depending on qualifications and training, 5 years (Full time equivalent) including 2 years in inspection. Shorter times apply where qualifications and training are high, but experience should be sufficient to develop basic technical skills and good communication skills.
- Personal – ability to read, write and communicate orally in the English language.
- Maturity and reliability, eyesight and hearing (with or without correction) and physical and mental ability to competently perform the proposed inspections.

* Pressure equipment knowledge – Understand the main technical inspection terms relating to pressure equipment.

For SISI applicants wider experience, calculation and technical ability is desirable in addition to the above.

Finding HV Induced Thermal Anomalies

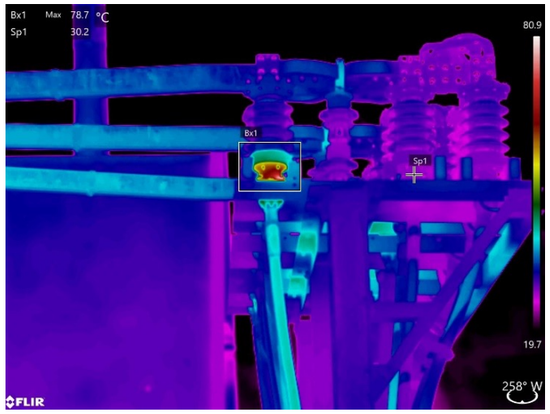
In the Transmission and Distribution HV industry in Victoria we currently work from 11KV up to 500KV. The usual modus of operandi for Thermography is to look at all the energised connections and contacts in the system, but sometimes a hot spot is found where you least expect it.

BY ERIK THORUP, DIRECTOR IR TECHNOLOGY AUSTRALIA PTY LTD CATEGORY 3 THERMOGRAPHER, ELECTRICAL/MECHANICAL (AINDT/BINDT)

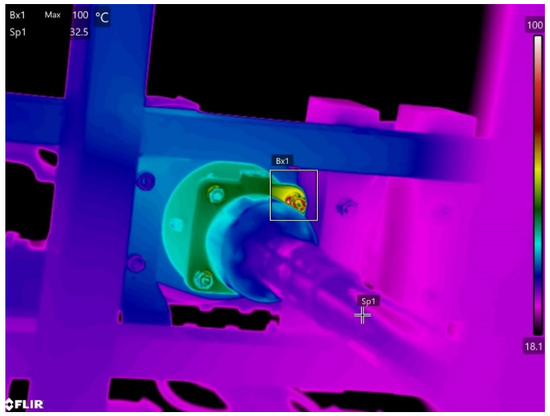
Induction (electromagnetic induction) occurs when you have varying electrical fields in combination with some material which can be magnetised, and which can cause the rise of another electrical field at a different place all together.

We will here show 4 different anomalies found over a long period, and also supply a small discussion. It is possible that the science behind the explanations is slightly flawed but remember – in electrical Thermography you always need a current to flow in a resistance to cause a hot spot, so the hot spots here MUST have some current flowing in them.

1. 11KV connection from an underground cable (Cable head)



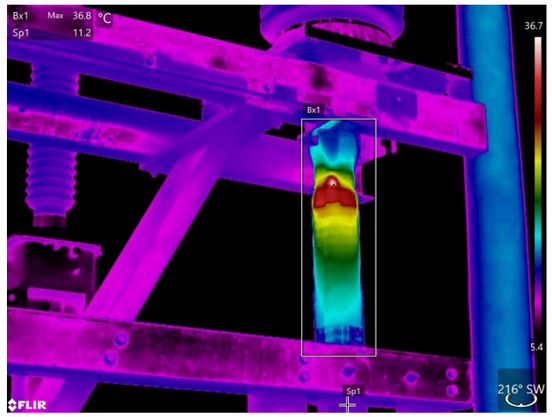
An 11 KV connection from an underground cable has shown up warm. Usually this will be due to a high resistance at the cable junction, but in this case a closer look reveals the image to the right.



A closeup image from a different angle reveals that one bolt which is likely part of the earth sheathing system is the hottest point, so some current must be flowing in the earth and there is some resistance associated with this bolt.

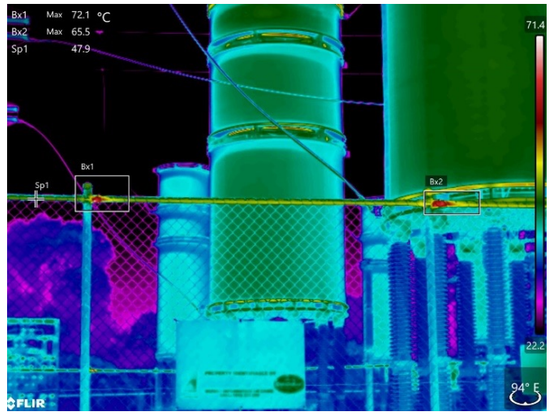
2. 220KV connection from an underground cable.

A 220KV connection from an underground cable has shown up warm. Usually this will be due to a high resistance at the cable junction, but in this case a closer look reveals the image to the right.

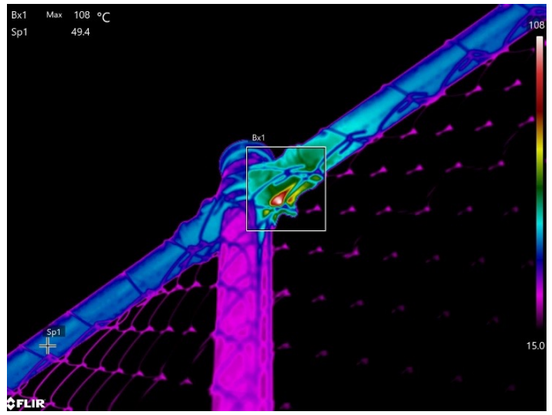


A closeup image from a different angle reveals that a hot spot under the insulating sleeve which is likely part of the earth sheathing system is the hottest point, so some current must be flowing in the earth and there is some resistance associated with thispoint.

3. Fence around a 330KV Capacitor Bank

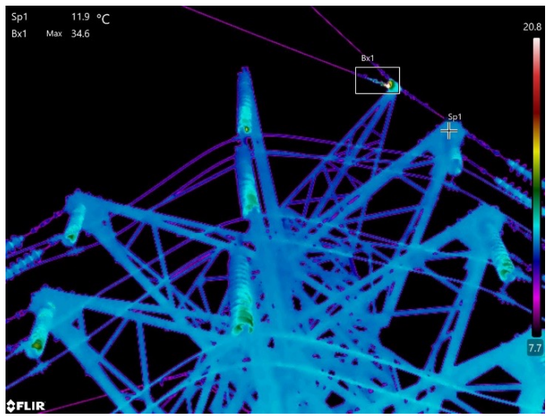


The fence around a 300KV Capacitor Bank show some odd hot spots at the top of the fence post uprights. Although this is not a problem for the continued supply it may be of safety concern if the temperature is very high.



A closeup image from a different angle reveals that part of the pole bracket has the highest temperature so some current must be flowing in this part and there is some resistance associated with this bracket connection and contact.

4. 220KV Earth connections



The earth wire connection to the top of a 220KV Tower close to a Terminal Station has increased temperature so some current must be flowing in the earth at this point and there is some resistance associated with this termination.

The earth wire connection to the top of an ground insulator at a 220KV Underground cable at a Power station is hot. Some current must be flowing in the earth at this point and there is some resistance associated with this termination.

As can be seen from the images provided, it seems that as long as the earth cables are running parallel to the energised cables as is the case from tower to tower on the transmission and distribution lines, but when you get to “the end of the line” the Earth may take a slightly different route, and maybe induction into the earth cable may happen.

If the route to Ground/Earth has no resistance, then current will flow directly to ground and you may not find any anomalies, but if there is a resistive part in the path (other than the cable/wire) then this will show up as a hot spot. Note that induction is usually highly dependent on the load (Ampere) in the system and a rise in load can easily cause an even higher change in the anomaly.

This article was written to show that it is imperative for the Thermographer to keep an eye open in places where a hot spot may not be expected. Any such anomaly should be reported and left to the HV professionals to analyse and rectify if necessary.

Generative culture in NDT Industry is essential for the survival of community and meeting new challenges

Non-Destructive Testing (NDT) Industry is facing enormous commercial and scientific challenges at present; we need to address those issues to ensure the survival of the community at large as well as the industry.

SUJIT CHAKRAVARTY1 (TECHNICAL MANAGER & ASNT NDT LEVEL III TRAINER), VELOSI (M) SDN. BHD.
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EMAIL: SUJIT@VELOSI.COM

Generative culture is the avenue to look ahead to meet these challenges. Engineering designers aim to fulfil the end process done by applying the minimum resources, creating a gap that makes a future challenge to the operator for monitoring and maintaining the assets. This do not have the objective to monitor and maintain it in long term. For example, Christmas tree structures at the well head of an oil & gas upstream facility has very limited scope for NDT to monitor its integrity. Structures made from metals, composites nonmetals and nonelastic solids have huge issue of whether they can be monitored by any NDT method or not possible. Researchers are coming forward to take on the challenges, and innovative scientific ideas are created to solve those problems. In pre-pandemic years, NDT was a vibrant industry to make things better and safer. Investors look at it as an opportunity of growth. Now the scenario has changed because of ongoing global crisis. Here we need to improvise and shift the NDT community towards a generative culture and do things, which was generally ignored in previous years. For example, nonlinear acoustic diagnostic is considered a bright spot towards those applications those did not have a chance of structural health monitoring in the past. This study shows how we need to adopt a new culture to make sure the NDT industry’s survival.

Keywords: Generative Culture; Commercial and Scientific Challenge; NDT Industry; Structural Health Monitoring.

Introduction

Leaders are role models for any successful organization or industry, where they are a pathfinder for new avenues of growth. They are driven by a strong sense of ownership, leading and encouraging all team members to strive for new ideas for solving problems. This creates a generative culture, which in turn keeps all stakeholders engaged and leaves nobody behind. The NDT industry, as a part of community at large, played a serious role in establishing a scientific way forward to make defects detected before they could affect our life both in terms of quality, safety, and reliability. Many people are unaware of such methods and being dependent on a small community of NDT professional keep them unaware of the limitations of these methods and consequence of failure to monitor key assets. Engineers/designers do think about their products to be maintenance friendly and keep in mind how that could be maintained in future. Unfortunately, they are not aware of how the product can be monitored by engaging test methods (most effectively by NDT) for health checks. This is obviously constituting a gap. NDT community needs to collaborate with academic scholars to make sure undergraduate students or future decision-makers of various engineering industries are aware of NDT methods and their limitations. As it is necessary to include NDT as a unit of undergraduate courses and make it academically included. Universities shall be engaged for this dialog. This describes that we need to shift our culture from competitive to generative. As Professor R. Westrum described, there are three organizational cultures – pathological, bureaucratic, and generative [1]. We need to shift towards generative culture seeking everyone’s participation for the sake of greater reliability and safety.

Present Challenges

The present worldwide post-pandemic global financial and political crisis creating new challenges to all including the NDT industry. The growth potential dropped in a deep dive because of various financial trade-related and supply chain issues. Research grants are downsized considerably, and many organizations related to NDT industries postpone investment in adopting new technologies. The overall scenario looks unfavorable. NDT community needs to adapt in the new environment and able to solve problems in an extremely cost-effective way. The silver line is rest in here. The knowledge of overcoming previous crisis and finding a new path of growth is already with us.

Conversion Of Challenges Into Opportunity

The methodology of finding a solution with current NDT methods to find additional applications may be one of the ways forward to achieve this goal. Here comes the role of generative culture. It is an opportunity to create a new application out of the already established NDT

method by collaborative exchange of knowledge and do something by keep a pause to the copyright or business profit-related angles and trade related issues.

Tapping unattended problems could be a source of additional business to revive output as well as resolve long outstanding issues. This is possible when our NDT community starts thinking from “It is impossible to do” to “let us see how we can do it”.

Here is an example: One of the low-temperature secondary separators of offshore natural gas producing installation have hot gas inlets as per the following arrangement in diagram 1. These inlets were exposed to the atmospheric corrosion and circled in red in diagram 1. It had a scope of health monitoring for its integrity evaluation.

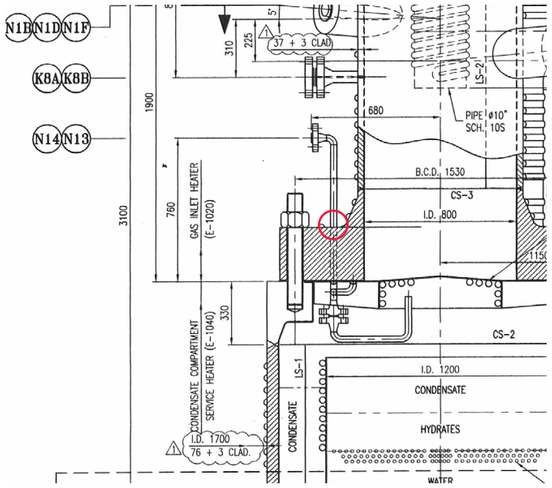

Diagram 1

The condition of the asset during visual inspection is shown in the following picture 1.

Picture 1

From the owner’s point of view, is there any NDT method available to monitor structural health condition? For example, such methods like Short Range Ultrasonic Testing (SRUT); Higher Order Mode Cluster (HOMC); Pulsed Eddy Current Testing (PECT) etc. was in view We need to find out a cost-effective technique to solve this difficult testing challenge; as a way forward, non-linear ultrasonic testing is proposed to detect and size the anomalies, which were clearly visible in this case.

It is certainly a way forward because we know “Damage specimens show different sound absorption characteristics than pristine specimens”[2]. “As the wave propagates through the damaged material crack surface near the crack tip open and close causing vibration in stiffness of the material in that region”[2]

The ratio of relative and the absolute acoustic non-linear parameters are the same for two different materials {in the above case, Tube and Flange were made from different materials}, “the ratio of the relative non-linear parameters is measurable regardless of the measurement method” [3].

The client was interested to know the cost vs benefit for these vessels aged 34 years and the installation was having another 10 years extension and replacement of such assets was costly.

Alternative methods of already established NDT methods come in view for solving problems those are otherwise not possible.

One of the common examples, which is usually not attended by NDT health monitoring of weldolet joint. Following picture 2 shows how one joint failed (leaked), mitigated by temporary wrapping and leaked again

Picture 2

even though the wrapping was intact. In fact, chemical industry has a common practice to do temporary mitigation and replacement of parts or section of the piping instead of monitoring and maintaining them.

These types of shapes, where health monitoring is difficult, are generally replaced by taking short and localized shutdowns. The present scenario allows us to rethink and do the NDT, which in turn will save much cost. This makes an opportunity of NDT industry to evolve with alternate cost-effective screening of such assets.

Micro-level studies of structures and analysis of those studies are already available in the market. We need to make it more popular and apply it in a variety of structures, and places of applications will be a great field of expansion for NDT industry.

The use of nonlinear ultrasonic guided waves can be a sensitive means for the low-velocity impact damages in composites [4].

The guided wave backscatter imaging technique is one of the recently developed methods gaining interest in rail testing.[5]

A. Choise Of Selections

Cases like these were addressed with an answer that this is impossible to do health monitoring, and the owner has no choice but to do shutdown and do replacement maintenance instead of having a reliability check.

Now we can cast these cases as opportunities; these types of cases can be made components of both scientific and financial growth for the industry.

NDT has been successfully employed in many cases to solve problems that otherwise are impossible. The mindset of the leaders in the NDT business must change from a selective to generative culture. Each mindful step will create an affirmative condition for the whole NDT industry, from top to the bottom and beyond. This will serve benefit to all stakeholders. Conscious communications with interdependent (engineering design, fabrication, construction, maintenance etc.) players will propagate a positive vibe to fight the present financial crisis together. If we do not intercept the crisis, it will not spare us at all.

B. Comparative cost study

Cost is equally important in this regard. Clients across the world would ask a question about the cost of service. Sometimes nonavailability of services or supply chain gap issues compels them to adopt the costly option of taking shut down and doing maintenance.

We need to see that the monitoring cost is much less than the maintenance cost to make it attractive. Make sure that cost, time of execution and availability of diagnostic method shall be easy for the procurement to get an commercial edge. We need to establish the reliability to such a height that the customer is sure about the value addition.

The financial efficacy of each new venture shall be done to allow those to have a modest chance of success.

NDT professionals shall have a brief knowledge of finance and marketing management. In respect of present practice, this has been covered by management specialists who need adequate NDT scientific/technical knowledge as a combination of their core ability.

C. Possibility of success

Here comes the strength of collaboration. The NDT community, from the trainee level to the doctoral level, has one thing in common, and that is inquisitiveness. When we face anything, start thinking about how to figure it out? Success depends on how quickly we can do things from concept to reality. This transformation can achieve through a venture of generative culture.

The endowment effect will be inclusive growth and the creation of more safety in every part of our society, whether it is at work or at home.

This must be endeavoured, taking the community from competitive mode to collaborative mode. Making sure nobody is left behind. Messengers are encouraged and adequately trained. Risks are shared and make things right in the first place.

4. Contrary to the market situation

There can be an argument about how the present market will react, which is full of competition between various organizations for various business interests. It is, in fact, very much possible. For example, looking at the Global Warming challenge we are facing now, we have no other option but to collaborate with each other to ensure our own existence, and the society/community is shifting towards greater cooperation. This looks impossible in the present market scenario.

5. Role of NDT

NDT has played a huge role in making modern life safe and comfortable with inclusive growth together with other industrial segments. Preference for cost-effective solutions to make quality products and services is a general goal of all professionals working in this field. We may bring it one step above together.

6. Conclusion

Generative cultures enable diversity, equity, inclusion, and belonging [6]. We will find new leadership in the NDT industry who will create space for the development and growth performance of the people working in NDT, the organizations, and the community. The generative environment's generosity extends beyond the doors of the organization [6].

More sophisticated inspection monitoring and analysis techniques for rotating equipment, which fails much more frequently and with consequences that are much costlier compared to major static structures, [7] are required. In the NDT industry, generative culture will develop a few cost-effective solutions for those cases.

7. References

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NDT World Event Calendar 2024

If you were able to attend AOG ENERGY or international conferences this year, your appetite for knowledge and networking would have been piqued.

The following list offers information on upcoming international NDT conferences for your consideration:

20th WCNDT (World Conference on Non-Destructive Testing (20th WCNDT)

27-31 May, 2024
Incheon Korea

It is our great honor to invite you to attend the 20th World Conference on Non-Destructive Testing (20th WCNDT) hosted by the Korean Society for Nondestructive Testing (KSNT) to be held in Incheon, South Korea in May 2024 under the auspice of ICNDT. We have been waiting for such a long time for this prestigious world conference to take place in Korea, and are now ready to provide a revitalized conference and exhibition.

The Organizing Committee will offer a dynamic technical program that will be highly informative to every participant. The conference will be the place for a continuous interchange of ideas and integration of professional colleagues from all around the world with an interest in this field. We are so confident that the 20th WCNDT will turn out to be the most successful platform for networking and inspiring new technical ideas with the support from all of you.

The venue, Songdo Convensia, Incheon, is a center of trade and transportation built upon the advanced infrastructure of Incheon International Airport (IATA: ICN). Within an hour’s distance from Seoul by public transportation, participants will be given the opportunity to experience a mixture of diverse cultures and world-class urban life.

We are very much looking forward to meeting you all at Songdo Convensia in May 2024.

EWSHM 2024
11th European Workshop on Structural Health Monitoring

10-13 June 2024
Potsdam, Germany

Structural Health Monitoring (SHM) is the science and application of sensing and actuation features to become an integral part of engineering structures and to allow structures’ life cycle performance to be seen from a holistic point of view. Within this, diagnostics and prognostics are therefore key elements. SHM emerged from the fields of structural mechanics and smart structures and laterally encompasses disciplines such as structural dynamics, materials and structures, fatigue and fracture, non-destructive testing and evaluation (NDT & E), sensors and actuators, microelectronics, signal processing including machine learning and possibly much more. Resulting SHM systems being realized therefore require a multidisciplinary view. The objective of SHM is to allow engineers to holistically manage the operation of engineering structures through the structures’ life cycle, leading to new breakthroughs in structural engineering.

The European Workshop on Structural Health Monitoring (EWSHM) dates back to the year 2000, where a first event was held in Madrid/Spain organized by Prof. Alfredo Güemes and where a decision was made, to run such a workshop every two years in alteration to the International Workshop on SHM (IWSHM) held every other year at Stanford University in California/USA. A further link exists to the Asia-Pacific Workshop on SHM (APWSHM), which is held on a usually biannual basis as well in the odd years. The biannual sequence of EWSHM has been continuously kept, with an exception in 2020, due to COVID-19. It has been held every time in a different city throughout Europe, the last successfully held in Palermo/Italy in 2022.

Although named a ‘workshop’, EWSHM has so far very much been run like a conference. Over the years the number of exhibitors at EWSHM has gradually increased as well as the demonstration of potential applications. EWSHM 2024 will therefore further move along this track in a way, that it will extend the portion of SHM demonstration in view of getting the obstacles of SHM application more obvious to a broader audience and to hopefully find ways on how to get such obstacles overcome. Different major demonstrators are therefore intended to be made available at EWSHM 2024, where SHM related technologies ready for application will be additionally presented and discussed along the different sessions within the workshop.

Prof. Dr. Christian Boller - Chairman Organising Committee

Dr. Thomas Wenzel - German Society for Non-Destructive Testing

NDT Canada 2024

June 11-13 2024
Ottawa, Ontario

The Canadian Institute for Non-destructive Evaluation (CINDE) is pleased to announce the NDT in Canada 2024 Conference, held in Ottawa, Ontario at the Brookstreet Hotel June 11 - 13, 2024. The theme for

this conference is "making every connection count" This conference brings a number of opportunities to discuss: where is NDT going? how do we get there? what tools and techniques will pave the way for the future of inspection? Expect to find the answers to these (and other) questions at NDT in Canada 2024! We invite NDT professionals from around the world to join in our world-class conference and enjoy the high quality programming that CINDE is known for!

Conference Activities
(Dates/times may be subject to change)

June 10, 2024
Golf details coming soon!

June 11, 2024
Pre-Conference Course: XRF course:
9:00 am - 4:00 pm

Exhibitor Move-in: 12:00pm - 5:00pm

Pre-Conference Mix N Mingle:
Approximately 6:30pm - 8:30pm

June 12, 2024

Conference Presentations:
Approximately 9:00am - 4:00pm

Conference Banquet & Awards Dinner:
Approximately 6:30pm - 9:00pm

June 13, 2024

Conference Presentations:
Approximately 9:00am - 4:00pm

Exhibitor Move-out: Approximately 3:00pm

7th Malaysia International NDT Conference and Exhibition (MINDTCE)

20th-21st August 2024

MSNT highly anticipated 7th Malaysia International NDT Conference and Exhibition (7th MINDTCE) will be held on August 20-21, 2024.

Stay tuned for our next announcement on the venue, exhibition layout, topics and much more.

36th EWGAE 2024

18-20 September 2024,
Potsdam, Germany

It is our pleasure to invite you to the upcoming 36th Conference of the European Working Group on Acoustic Emission (EWGAE), which will be held from 18 - 20 September 2024 in Potsdam, Germany.

The EWGAE conference is a prestigious international forum for researchers, engineers, and practitioners who are interested in the field of acoustic emission. The conference aims to provide an opportunity for participants to exchange ideas and share the latest advances in the field of acoustic emission, including theoretical and experimental investigations, instrumentation, data analysis, and applications.

This conference will feature keynote lectures from renowned experts in the field, as well as technical sessions, poster presentations, and panel discussions. The conference will also include social events that will provide opportunities for networking and building new collaborations.

We are confident that your participation in the EWGAE conference will be a valuable experience for you, and we hope that you will join us for this exciting event. We encourage you to submit your abstract and share your latest research findings with the acoustic emission community.

We look forward to welcoming you to the EWGAE conference and to the vibrant city of Potsdam, Germany.

Prof. Dr. Markus Sause - University of Augsburg

Prof. Dr. Gerd Manthei - Mittelhessen University of Applied Sciences

Dr. Thomas Wenzel - German Society for Non-Destructive Testing

The 3rd World Congress on Condition Monitoring

15-18 October 2024

Beijing International Convention Center,China

We truly appreciate your support and positive regard to the 3rd WCCM.

The Organizing Committee of the 3rd WCCM has decided to hold the Congress to the final dates, October 15 to 18, 2024 at the same venue, Beijing International Convention Center, Beijing, China.

The 3rd WCCM website has been updated and much information will be given later.

We wish you stay healthy and look very much forward to seeing you all in October next year at the 3rd WCCM

ASNT 2024

21-24 October 2024
Las Vegas, NV

Join us for this year's annual conference to engage with other NDT professionals and learn about advancements in the industry - from artificial intelligence and machine learning, to an everchanging workforce.

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NDT Instruments Australia

NDT Instruments Australia is a subsidiary of NDT Instruments Singapore. Started operation in 2023 at Perth, Australia with the mission to identify, source and supply quality products to our customers in the field of Non-Destructive Testing (NDT) systems and Quality Assurance & Control (QA/QC).

NDT Instruments Australia offers a wide range of Products including our Parent Company, FOERSTER's new Mobile universal device for non-destructive eddy current testing, TCM 2.142.TCM (Test Channel Mobile) is an innovative platform that can revolutionize portable Non-Destructive Testing (NDT) with Eddy Current.

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Our group is made up of complementary and specialist service providers assisting us to innovate in project delivery across multiple market verticals. They include; Geo Oceans an industry leader in Mini-ROV IRM and subsea inspection services, Sonomatic who are recognised as a global leader in specialised NDT, AUAV a specialist UAV, Drone and data analytics company, REMO Technical Services is a specialist supplier of turbine installation, turbine maintenance, and turbine inspection services.

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