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NDT 2025 – Tuesday 9 September

08.45 Opening Ceremony – Welcome and introduction...N/A

Authors - J Taylor, D Gilbert and L Gelman

Room A: Sidlaw Auditorium

**08.55 Opening Plenary Paper – Roy Sharpe Prize Lecture –
Shifting paradigms: user-centred design for successful implementation
of AI-driven and assistive technologies in non-destructive testing...N/A**

Author - M Bertović, Federal Institute for Materials Research and Testing (BAM), Germany

Chair: J Taylor, SGS, UK - Room A: Sidlaw Auditorium

**09.35 Plenary Paper – COMADIT Prize Lecture – Health monitoring of
3D printed structures: complexities and challenges...N/A**

Author - M Khan, Cranfield University, UK

Chair: Professor L Gelman, University of Huddersfield, UK - Room A: Sidlaw Auditorium

**10.15 NDT Plenary Paper – Next-generation NDE: integrating artificial
intelligence into advanced non-destructive inspection systems and
structural health monitoring...N/A**

Author - R Maev, University of Windsor, Canada

Chair: J Taylor, SGS, UK - Room A: Sidlaw Auditorium

**10.45 Research Centre in Non-Destructive Evaluation (RCNDE) presentation
on NDT for the future: opportunities and threats. An update of our
industrial landscape report...N/A**

Author - T Barden, Rolls-Royce plc, UK

Chair: C Bull, RCNDE, UK - Room A: Sidlaw Auditorium

**10.50 CM Plenary Paper – Optical and terahertz methodologies and
instrumentation for quantitative non-destructive evaluation of
surface and interface of thin films...N/A**

Author - S Zhong, Fuzhou University, China

Chair: Professor L Gelman, University of Huddersfield, UK - Room A: Sidlaw Auditorium

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Session A – Civil Engineering Group

Chair: **J Elliott** Room A: **Sidlaw Auditorium**

11.50 [IA1] Transforming railway structure inspections using robotic-coupled non-destructive testing and automated analysis...1

Authors - H Murtaza, T Hovell, N Pietrow, A Birch and M Begg
The Manufacturing Technology Centre, UK

12.10 [IA2] Transforming tunnel lining inspection using novel non-destructive testing approach...15

Authors - H Murtaza¹, S Smith¹, B Norman¹, J Mitchell², T Dunstan² and P Silva²
¹The Manufacturing Technology Centre, UK
²National Highways, UK

12.30 [IA4] Publication of report on the NDT, CM and SHM requirements for civil structures...N/A

Authors - C Brett and C Bull
RCNDE, UK

12.50 [IA5] Towards guided wave inspection of concrete using magnetostrictive patch transducers...N/A

Authors - Z West¹, S Khan¹, L Marston², R Young³, M Mulheron⁴ and O Trushkevych¹
¹University of Warwick, UK
²Fibre Technology Ltd, UK
³Lateral Logic Ltd, UK
⁴University of Surrey, UK

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Session B – **Ultrasonics**

Chair: **K Kirk** Room B: **Harris I**

11.50 [IB1] Comparison of laser ultrasonic testing and traditional ultrasonic testing...27

Authors - B van Elburg, W Kramer and H P Jansen
Royal Netherlands Aerospace Centre, Netherlands

12.10 [IB2] Adhesive bond thickness inversion using through-transmission data...39

Authors - A Volker and H P Jansen
Royal Netherlands Aerospace Centre, Netherlands

12.30 [IB3] Simulation of gel effects on the ultrasonic LCR wave for residual stress error quantification...49

Authors - B Mills, Y Javadi and C MacLeod
University of Strathclyde, UK

12.50 [IB4] Acousto-ultrasonic modal identification for health monitoring of safety-critical engineering structures...N/A

Authors - A Gullapalli¹, A Kundu¹, C Featherston¹, R Pullin¹ and M Naaman²
¹Cardiff University, UK
²Babcock International Group, UK

Session B – **Laser shearography NDT breakthroughs in marine composites: a new era with PCN certification**

Chair: **S Dickinson** Room B: **Harris I**

13.10 [IB5] Improvements in laser shearography for marine composite inspection and the new PCN status for marine composite inspection for qualifying technicians...N/A

Authors - J Tyrer and S Dickinson
Laser Optical Engineering Ltd, UK

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Session C – Electromagnetics

Chair: **P Loftus** Room C: **Harris 2**

11.50 [IC1] Gathering dust: a new technique for rapid measurement of magnetic fluid concentration...61

Authors - R Howles¹, A Gregory¹, I Gill² and D Seghier²

¹National Physical Laboratory, UK

²NDT Consultants Ltd, UK

12.10 [IC2] Multi-point calibration of a portable coercivity meter using BH curve analysis for improved accuracy...N/A

Authors - J Salas¹, Z Chen¹, R Lyu¹, D Brunt² and D Ryan²

¹Manchester Advanced Intelligent Equipment Research & Innovation Centre (MAIERIC) Ltd, UK

²National Physical Laboratory (NPL), UK

12.30 [IC3] Multi-angle steering of a meander-line coil EMAT...73

Authors - S Hurrell^{1,2}, P Charlton¹, S Mosey¹, O Rees-Lloyd² and R Lewis²

¹University of Wales Trinity Saint David, UK

²TWI Ltd, UK

Session C – Composites

Chair: **T Bertenshaw** Room C: **Harris 2**

12.50 [IC4] Influence of ply orientation on eddy current behaviour in CFRPs using inductive coupling...N/A

Authors - A Sharma¹, R Hughes¹ and A Peyton²

¹University of Bristol, UK

²University of Manchester, UK

13.10 [IC5] Guided wave transmission around a CFRP L-stiffener...N/A

Authors - F Hervin^{1,2}, V Maes², P Fromme³, R Hughes² and P Wilcox²

¹GKN Aerospace Services Ltd, UK

²University of Bristol, UK

³University College London, UK

NDT 2025 – Tuesday 9 September

Session A – **Phased array**

Chair: **C Bull** Room A: **Sidlaw Auditorium**

14.10 [2A1] Ultrasonic imaging of volumetric defect using diffuse signals acquired from a laser vibrometer...N/A

Author - J Li
University of Bristol, UK

14.30 [2A2] A sensitivity-based model for ultrasound fastener hole inspection probe optimisation...N/A

Authors - Y Wu, P Wilcox and A Croxford
University of Bristol, UK

14.50 [2A3] Comparative study on over 150 m of welded joints using established (PA/TOFD) and emerging (PCI/TFM) ultrasonic imaging methods...N/A

Authors - F Turcu¹, D Visan², V Coman² and A Le Duff³
¹Evident Scientific Europe, Germany
²Namicon Testing SRL, Romania
³Evident Scientific, Canada

15.10 [2A5] AI and edge computing assisted manual phased array inspection...N/A

Authors - O Jessen-Juhler, T Koskinen and I Virkkunen
Trueflaw Ltd, Finland

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Session B – **Thermography**

Chair: **D Manning-Ohren** Room B: **Harris I**

14.10 [2B1] Use of CIVA to determine optimal settings for the inspection of bonded 1.6 mm aluminium plates with thermography...92

Authors - H P Jansen and D B Deutz

Royal Netherlands Aerospace Centre, Netherlands

14.30 [2B2] Improving the spatial resolution in active thermography using pixel-variable IR excitation...N/A

Authors - M Kreutzbruck, J Rittmann and J Hufert

University of Stuttgart, Germany

14.50 [2B3] AI-based defect reconstruction in lock-in thermography...N/A

Authors - M Kreutzbruck, J Rittmann and J Hufert

University of Stuttgart, Germany

15.10 [2B4] A low-cost, high-throughput X-ray scanner for quantitative 3D imaging using biaxial computed laminography...104

Authors - A Mavalankar¹, M Contino¹, C Antrobus¹, M Holden¹, S Wells¹, K Bowen¹,
B Hughes¹, L Eley^{2,3}, C Welsch^{2,3}, I Nicholson⁴, C Forrest⁴ and A Clarke⁴

¹Adaptix Ltd, UK

²University of Liverpool, UK

³The Cockcroft Institute, UK

⁴TWI Ltd, UK

NDT 2025 – Tuesday 9 September

Session C – Inspection qualification

Chair: **Dr C Brett** Room C: **Harris 2**

14.10 [2C1] NDT validation...N/A

Author - C Douglas
BP, UK

14.30 [2C2] Remote internal inspection of pressure vessels and tanks: HOIS's recommended practice...N/A

Author - T Conder
ESR Technology Ltd, UK

14.50 [2C3] Inspection for SCC in uncoated austenitic stainless steel...N/A

Author - M Jones
ESR Technology Ltd, UK

15.10 [2C4] Enhancing inspector training through the integration of artificial defect data in guided wave testing...116

Authors - D Martinez-Trejo and B Pavlakovic
Guided Ultrasonics Ltd, UK

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Session A – Phased array

Chair: **B Brown** Room A: **Sidlaw Auditorium**

16.00 [2A6] Advanced ultrasound methods for HTHA inspection...121

Author - S Couture

Evident Scientific, Canada

16.20 [2A7] Improving efficiency and reliability of pipeline girth weld inspection with next-generation software tools...N/A

Authors - P Hillman, D Richard, D Marois, J Berlinger and P Cyr

Eddyfi Technologies, Canada

16.40 [2A8] Bridging the expertise gap in phased array ultrasonic testing: A workflow-centric approach to democratising advanced NDT techniques...N/A

Author - P Hillman

Eddyfi Technologies, Canada

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Session B – Digital signal processing

Chair: **To be confirmed** Room B: **Harris I**

16.00 [2B6] Enhancing hydrogen damage detection through coherence imaging...N/A

*Authors - A Assokumar, V Samaitis, A Stravinskas and R Raišutis
Ultrasound Research Institute, Kaunas University of Technology, Lithuania*

16.20 [2B7] Innovative ultrasound testing technique with scanner for detection of stress corrosion cracking in welds on elbow pipes...N/A

*Author - C Thibault
TPAC, France*

16.40 [2B8] Guided wave testing advances in the detection of metal loss in stainless steel pipelines and plate structures...N/A

*Author - S Hughes
Eddyfi Technologies, UK*

17.00 [2B9] Guided wave tomography using generative adversarial neural network architectures for sparse ultrasonic arrays...N/A

*Author - I Matthaiou
University of Strathclyde, UK
Presenter to be confirmed*

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Session C – Composites

Chair: **T O'Hare** Room C: **Harris 2**

16.00 [2C5] Comparing different non-destructive evaluation modalities for the assessment of out-of-plane waviness in carbon fibre-reinforced plastics...N/A

Authors - R Gomes¹, E Mohseni¹, V Maes², M Contino³, S G Pierce¹, K Burnham¹, R Vithanage¹, C MacLeod¹, G Munro⁴ and T O'Hare⁴

¹University of Strathclyde, UK

²University of Bristol, UK

³Adaptix NDE UK Ltd, UK

⁴Spirit AeroSystems, UK

16.20 [2C6] Multi-model machine learning approach for automated data analysis of carbon fibre-reinforced polymer composites...N/A

Authors - E Mohseni¹, V Tunukovic¹, S McKnight¹, A Hifi¹, S G Pierce¹, R Vithanage¹, G Dobie¹, C MacLeod¹, S Cochran¹, G Munro² and T O'Hare²

¹University of Strathclyde, UK

²Spirit AeroSystems, UK

16.40 [2C7] From cradle to the grave: eddy current testing for manufacture and remanufacture of carbon fibre composite structures...N/A

Authors - E Arabul¹, M Mussatayev¹, R Palazzetti², P Saunders³ and R Hughes¹

¹University of Bristol, UK

²Politecnico di Milano, Italy

³National Composites Centre, UK

17.00 [2C8] NDT methods to quantify Joule heating-induced degradation in carbon fibre-reinforced polymers...N/A

Authors - K Dikwal¹, V Tunukovic¹, E Mohseni¹, C Jones¹, K Tant², R Vithanage¹, C MacLeod¹, G Munro³ and S G Pierce¹

¹University of Strathclyde, UK

²University of Glasgow, UK

³Spirit AeroSystems, UK

NDT 2025 – Wednesday 10 September

08.50 NDT Plenary Paper – Anne Birt Prize Winner Lecture – From hot data to sound decisions: the technology powering on-stream, high-temperature UT for inspection and monitoring...N/A

Author - Dr T Stevenson, Ionix Advanced Technologies Ltd, UK

Chair: J Taylor, SGS, UK - Room A: Sidlaw Auditorium

09.20 CM Plenary Paper – Past, present and future of sustainable, lightweight and ecofriendly magnesium-based materials in engineering and biomedical applications...N/A

Author - Professor M Gupta, National University of Singapore, Singapore

Chair: Professor L Gelman, University of Huddersfield, UK - Room A: Sidlaw Auditorium

09.50 Research Centre in Non-Destructive Evaluation (RCNDE) presentation on NDT for the future: opportunities and threats. An update of our industrial landscape report...N/A

Author - T Barden, Rolls-Royce plc, UK

Chair: C Bull, RCNDE, UK - Room A: Sidlaw Auditorium

Session A – SHM Session

Chair: C Bull Room A: Sidlaw Auditorium

10.00 [3A1] Airframe structural health monitoring for damage detection and damage monitoring...N/A

Authors - K Atherton¹ and A Rautureau²

¹Airbus Operations UK Ltd, UK

²Airbus Operations SAS, France

10.20 [3A2] Evaluating image registration stitching techniques for partially overlapping ultrasonic corrosion maps...N/A

Authors - A Nichita and F Cegla

Imperial College London, UK

11.10 [3A3] Machine learning to enhance the performance of guided wave SHM...N/A

Author - A Croxford

University of Bristol, UK

11.30 [3A4] Crack path effects on vibration characteristics in structural beams and plates...136

Authors - Y Lafi A Alshammari^{1,2}, M Khan¹, F He¹ and H Doganay Kati^{1,3}

¹Cranfield University, UK

²Northern Border University, Saudi Arabia

³Bursa Technical University, Türkiye

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Session B – **Electromagnetics**

Chair: **Dr R Hughes** Room B: **Harris I**

10.00 [3B1] Defining technical axioms for eddy current array technologies: for their general use and certification...N/A

Author - J Watson

Lavender International NDT Consultancy Services Ltd, UK

10.20 [3B2] Building trust in NDT: the role of metrology in industrial electromagnetic techniques...N/A

Author - G Finch

National Physical Laboratory, UK

11.10 [3B3] PECT through steel covers: mitigating vibration and signal distortion via magnetic saturation...N/A

Authors - J Salas¹, Z Chen¹, G Finch² and L Wright²

¹MAIERIC Ltd, UK

²National Physical Laboratory, UK

11.30 [3B4] Advanced magnetic flux leakage (MFL) system for residual stress characterisation in ferromagnetic materials...N/A

Author - T Chen

National Ilan University, Taiwan

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Session C – **Quality assurance**

Chair: **T Bertenshaw** Room C: **Harris 2**

10.00 [3C1] Integrating mmWave radar into digital manufacturing for tool health assessment...148

Authors - K Khalil, A Abotoor, M Hassan, Z Murat Kilic, M D O'Toole and A Peyton
University of Manchester, UK

10.20 [3C2] Laser shock peening with acoustic emission *in-situ* monitoring for quality control...159

Authors - J Griffin¹, P Shukla², R Qin³ and P Butler Smith²
¹Coventry University, UK
²The Manufacturing Technology Centre, UK
³University of Edinburgh, UK

11.10 [3C4] Fault diagnosis method for elevator brakes based on WTEMD and CNN-BiLSTM cross-attention...N/A

Author - J Feng
China Special Equipment Inspection and Research Institute, China

11.30 [2B5] Enhancing pipeline structural health monitoring with AI-driven data analysis...N/A

Author - K Sidor
Scope Inspection Ltd, UK

11.50 NDT SHM Plenary Paper – Assessing the impact of pressure transients to predict pipe failures in water networks...N/A

Author - Dr I Stoianov, Imperial College London, UK
Chair: J Taylor, SGS, UK - Room A: Sidlaw Auditorium

12.10 BINDT's strategy for serving the NDT, CM and SHM community: a 2025 update...N/A

Author - D Gilbert, CEO, BINDT, UK
Chair: J Taylor, SGS, UK - Room A: Sidlaw Auditorium

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I4.00 President's Honour Lecture – Impact of AI technology on the testing, inspection and certification (TIC) sector...N/A

Author - G Bendelow, HSB Engineering Insurance Ltd, UK, and a Director of the Safety Assessment Federation (SAFed), UK

Chair: J Taylor, SGS, UK - Room A: Sidlaw Auditorium

I4.00 CM Innovation Paper – Using different condition monitoring techniques for fault diagnosis in industries...N/A

Author - M Behzad

Chair: Professor L Gelman, University of Huddersfield, UK - Room D: Carrick 2 and 3

Session A – NDE 4.0

Chair: **Dr N Brierley** Room A: **Sidlaw Auditorium**

I4.30 [4A1] Seamless integration of phased array data with digital models by the use of 6DOF devices...N/A

Author - P Burrows

Baugh & Weedon Ltd, UK

I4.50 [4A2] Advanced defect detection and classification in sandwich composite structures using statistical and AI-driven techniques...178

Authors - J Aigbotsua¹, B Drinkwater², R Smith² and T Marshall³

¹Baugh & Weedon Ltd, UK

²University of Bristol, UK

³Tom Marshall NDT Ltd, UK

I5.10 [4A3] Glovebox-CT to enable 3D imaging of reactive or hazardous samples...N/A

Authors - N Brierley¹, D Zanke¹, L Peche¹ and P Habenschaden²

¹Diondo GmbH, Germany

²MBRAUN Inertgas-Systeme GmbH, Germany

I5.30 [IA3] Development of ultrasonic inspection processes for critical railway fasteners for subsurface fractures...N/A

Author - S Bhat

University of Bristol, UK

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Session B – Phased array

Chair: **To be confirmed** Room B: **Harris I**

14.30 [4B1] Improving phased array inspection reliability of alloy 625 welds...190

Author - A Birring
Birring NDE Center Inc, USA

14.50 [4B2] Quantitative characterisation and performance verification of a new phased array instrument for the automated PAUT inspection of steel bars in accordance with EN ISO 18563-1...199

Authors - K Sanjeevareddy¹, J Claudia¹, A Cord¹, K Daniel¹ and M Josef²
¹Rosenxt IDS GmbH, Germany
²Voestalpine Böhler Edelstahl GmbH & Co KG, Austria

15.10 [4B3] Process-to-part phased array inspection of a large-scale composite aerospace specimen...N/A

Authors - M Shields¹, R Vithanage¹, S G Pierce¹, T O'Hare², G Munro², J O'Brian-O'Reilly², C MacLeod¹ and A Gachagan¹
¹University of Strathclyde, UK
²Spirit AeroSystems, UK

15.30 [4B4] Crawler robots meet NDT on industrial chimneys: GRP, concrete, stainless steel and more...209

Authors - J Cornes¹, J M Henault², S Treguier², A Druet² and A Bulavinov³
¹HausBots Ltd, UK
²EDF Group, France
³ACS Solutions GmbH, Germany

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Session C – **Ultrasonics**

Chair: **T Stevenson** Room C: **Harris 2**

14.30 [4C1] Ultrasonic inspection of industrial components with complex geometries using optimised single transmission modulated signals and a flexible ecofriendly ultrasonic array...N/A

Authors - E Germano^{1,2}, E Mohseni¹, D Lines¹, M Tabatabaeipour³, K Lam², D Hughes⁴,
H Trodden⁴ and A Gachagan¹

¹University of Strathclyde, UK

²University of Glasgow, UK

³Ulster University, UK

⁴Novosound Ltd, UK

14.50 [4C2] Investigation into distinguishing defects from corroded surfaces in ultrasonic imaging...N/A

Authors - Y Cai, A Mulholland and J Zhang
University of Bristol, UK

15.10 [4C3] Automated ultrasonic sizing of surface breaking cracks using snooker images and neural network machine learning systems...N/A

Author - C Nageswaran
TWI Ltd, UK

15.30 [4C4] Understanding wave modes generated in thick plates and concrete using magnetostrictive patch transducers...N/A

Authors - Z West, D Billson and O Trushkevych
University of Warwick, UK

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Session A – Modelling

Chair: **To be confirmed** Room A: **Sidlaw Auditorium**

16.30 [4A5] Investigation into modelling hydrogen-induced defects to predict their ultrasound images...N/A

Authors - L Chang, B Drinkwater and J Zhang
University of Bristol, UK

16.50 [4A6] Predictive models for estimating front position in resin infusion processes using ultrasonic guided wave sensors...N/A

Authors - C Calistru¹, V Tunukovic¹, E Mohseni¹, S G Pierce¹, C MacLeod¹, D Lines¹,
R Vithanage¹, I Bomphray², T Weis², G Munro³ and T O'Hare³
¹University of Strathclyde, UK
²National Manufacturing Institute Scotland (NMIS), UK
³Spirit AeroSystems, UK

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Session B – Ultrasonics

Chair: **To be confirmed** Room B: **Harris I**

16.30 [4B5] Ultrasonic monitoring of high-cycle thermal fatigue (HCTF)...N/A

Authors - L Clarkson and F Cegla
Imperial College London, UK

16.50 [4B6] Review of extended reality for manual NDT inspections...215

Authors - D Conniffe¹, R Zhu¹, A Fletcher¹, A Peyton¹ and J Skelton²
¹University of Manchester, UK
²Amentum, UK

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Session C – Diversity and Inclusion Advisory Group (DIAG) panel session

Chair: **C Bull** Room C: **Harris 2**

16.30 [4C5] Diversity and Inclusion Advisory Group (DIAG) panel session:
Title to be confirmed...N/A

Speakers to be confirmed

NDT 2025 – Thursday 11 September

09.00 NDT Plenary Paper – The journey of replacing RT with phased array UT, including the qualification and legislative compliance...N/A

Author - M Graham, BAE Systems plc, UK

Chair: J Taylor, SGS, UK - Room A: Sidlaw Auditorium

09.30 CM Plenary Paper: Distinguished overview speaker – Signal Lab – Artificial intelligence and advanced signal processing in applied research: real-world applications from industry to space...N/A

Author - R Martinek, Technical University of Ostrava, Czech Republic

Chair: Professor L Gelman, University of Huddersfield, UK - Room A: Sidlaw Auditorium

Session A – Horizon scans of leading-edge NDE, CM and SHM technologies

Chair: D Gilbert Room A: Sidlaw Auditorium

10.00 [5A1] Emerging technologies and methodologies at the forefront of NDE...N/A

Author - B Drinkwater

University of Bristol, UK

10.20 [5A2] Predicting the trends for condition monitoring...N/A

Author - D Manning-Ohren

Eriks Industrial Services, UK

10.40 [5A3] Research trajectories, critical challenges and opportunities that will shape the future of SHM...N/A

Author - S G Pierce

University of Strathclyde, UK

11.00 [5A4] Using AI to cover the blind spot in NDT...N/A

Author - T Wenzel

The German Society for Non-Destructive Testing (DGZfP), Germany

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Session B – Miscellaneous techniques

Chair: **J Watson** Room B: **Harris I**

10.00 [5B1] Diamond quantum sensors for non-destructive testing...227

*Authors - B Vindolet, G Bourcin, H Nguyen and T Hingant
KWAN-TEK, France*

10.20 [5B2] A portable magnetic Barkhausen noise (MBN) instrument for hardness and stress evaluation...237

*Authors - X Pang, S She, X Zheng, X Zou, A Peyton and W Yin
University of Manchester, UK*

10.40 [5B3] Hemispherical multi-directional eddy current array sensor for robotic profiling of metallic edge surfaces...249

*Authors - X Bai, F Zhu, Z Xia, A Peyton and W Yin
University of Manchester, UK*

11.00 [5B4] The use of muon tomography for structural integrity and ground remediation and characterisation...259

*Authors - L Thompson and C Steer
Geoptic Infrastructure Investigations Ltd, UK*

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Session C – Pathway to NDT

Chair: **S Cunningham** Room C: **Harris 2**

10.00 [5C1] Driving technical competence through structured training in Scotland...N/A

Author - K Fleming
ECITB, UK

10.20 [5C2] Employer case study: attracting the next generation...N/A

Author - Speaker to be confirmed

10.40 [5C3] BINDT STEM and outreach programme...N/A

Author - R Mulholland
BINDT, UK

11.00 Q&A Session

S Cunningham, Lavender International, UK, K Fleming, ECITB, UK, and R Mulholland, BINDT, UK

11.30 CM Plenary Paper – Fault diagnostics and prognostics of power transmission train of rotating machinery...N/A

Authors - Professor T R Lin and Y Shang, Qingdao University of Technology, China
Chair: Professor L Gelman, University of Huddersfield, UK - Room D: Carrick 2 and 3

12.00 CM Panel session

Chair: Professor L Gelman, University of Huddersfield, UK - Room D: Carrick 2 and 3

13.30 Panel Session – CM, NDE and SHM

B Drinkwater, University of Bristol, UK
D Manning-Ohren, Eriks Industrial Services, UK
S G Pierce, University of Strathclyde, UK
T Wenzel, The German Society for Non-Destructive Testing (DGZfP), Germany

Panel Session – Audience with D Gilbert and guests