

Local Organising Committee

K Cambridge
S Creed
Prof L Gelman (Chair)
S Greenfield (Vice Chair)
K Hickman
Prof A Hope
S McNally
D Whittle

BINDT
BINDT
University of Huddersfield
Eaton Aerospace
BINDT
Southampton Solent University
BINDT
RMS Ltd



Enquiries

Conferences and Events Department,
The British Institute of Non-Destructive Testing,
Midsummer House, Riverside Way, Bedford Road,
Northampton NN1 5NX, UK
Tel: +44 (0)1604 438300
Fax: +44 (0)1604 438301
Email: cm_mfpt@bindt.org

www.cm-mfpt.org



International Scientific Advisory Committee

Chair:

Prof L Gelman, UK

Honorary Co-Chair:

Dr S K Babu, Singapore

Vice Chairs:

Dr M Farley, UK
D Gilbert, UK
S Greenfield, UK
J Hansen, UK
Dr N Martin, France

Members:

Prof I Antoniadis, Greece	Prof K Loparo, USA
Prof S Ao, China	Prof A Lucifredi, Italy
Prof J Antoni, France	R Lyon, UK
Dr D Arifianto, Indonesia	C Mackle, UK
Prof A Ball, UK	Prof D Mikieliewicz, Poland
Dr I Baillie, UK	S Mills, UK
C Belinco, Argentina	Dr S Muthuraman, UK
Dr A Bereson, USA	Prof J Nieznański, Poland
Prof J Bortman, Israel	Prof S Noroozi, UK
Dr S Boichenko, Russia	Dr M Papaalias, UK
C Gerard, UK	C Pearson, UK
Prof M Crocker, USA	Prof F Pellicano, Italy
Prof L Cheng, China	Prof B Randall, Australia
Prof F Chu, China	Prof R B K N Rao, UK
Dr P Cominetti, Italy	Dr A Saxena, USA
Prof G Dalpiaz, Italy	D Shabalin, Denmark
Prof M Deja, Poland	Prof G Shen, China
Dr J Dix, Denmark	D Shorten, UK
Prof D Drikakis, UK	Prof M Sidahmed, France
Prof T-H Gan, UK	Dr S Sieg-Zieba, France
Dr S Ganeriwala, USA	Prof R Smid, Czech Republic
Dr F Gu, UK	Prof A Starr, UK
Dr G Herborg, Denmark	Dr C Svendsen, Denmark
Prof S Heyns, South Africa	Prof L Swedrowski, Poland
Prof A Hope, UK	Prof P Trampus, Hungary
Prof K Horoshenkov, UK	Prof N Vyas, India
Dr E Juuso, Finland	G Walker, UK
Prof K Karwowski, Poland	Prof L Wang, UK
Prof A Khalid, UK	D Whittle, UK
Dr R Klein, Israel	Prof P White, UK
Dr S Kolokolnikov, Russia	A Wynn, USA
Prof V Krylov, UK	Dr G Yebra, UK
Prof A Kumenko, Russia	Prof R Zimroz, Poland
Prof L Kuravsky, Russia	Prof M Zuo, Canada
Prof S Lahdelma, Finland	Dr G Zusman, USA
Prof M Lipsett, Canada	
Prof L Lobanov, Ukraine	

The Sixteenth International Conference on Condition Monitoring and Asset Management CM2019

From sensors, through diagnostics and prognostics, to maintenance and management



Call for Papers

Tuesday 25 to Thursday 27 June 2019
The Principal Grand Central Hotel,
Glasgow, UK

www.cm-mfpt.org

About This International Conference

The British Institute of Non-Destructive Testing (BINDT) is pleased to invite you to this premier event. The conference is being organised by BINDT in close partnership with the International Society for Condition Monitoring (ISCM) and the US Society for Machinery Failure Prevention Technology (MFPT). This combination of the efforts of these leading organisations creates one of the largest events of its kind at a truly international level and builds on the highly successful 15 international condition monitoring conferences organised by BINDT, the First World Congress on CM in 2017 organised by BINDT and ISCM and 70 annual conferences organised by the Society for MFPT. The event provides you with a unique opportunity to network with academics and industrialists from all over the world. Leading figures in the field of condition monitoring will be presenting at the conference, ensuring that everyone will learn something.

The programme will include:

- Plenary presentations
- Invited and contributed presentations, including case study presentations
- Industrial sessions for major industrial sectors
- Expert panel session on hot topics in condition monitoring, led by recognised scientists and engineers
- Exhibition, vendor presentations and plenary spotlight session for exhibitors and sponsors
- Social events
- BINDT-sponsored student packages
- FOC workshop for CM conference delegates

Conference Participation

Submit an abstract online

Abstracts and papers should be submitted online (<https://mc.manuscriptcentral.com/cm2019-mfpt2019>). Invited papers should be linked to the appropriate session; all other papers should be linked to 'general session'.

Make a presentation at the conference

Authors of accepted abstracts will be invited to present their work at the conference.

Write a paper

Papers that are submitted will be subject to peer review by members of the International Scientific Advisory Committee. Selected papers may be published in BINDT's international journal, *Insight*, the *International Journal of Condition Monitoring* or other international journals. Papers related to 'case studies' may be published in BINDT's international newsletter, *Condition Monitor*.

Key dates, guidelines for authors and how to submit a paper are available on the conference website at www.cm-mfpt.org

We encourage papers from both academia and industry on the following topics:

- Applications
- Architecture of CM systems
- Asset management
- Certification, education and training in CM
- CM for biomedical and healthcare applications
- CM case studies
- CM for civil engineering
- CM for manufacturing
- CM systems and applications
- Condition monitoring (CM) and diagnosis methods and technologies
- Cost benefit analysis
- Data mining and fusion
- Damage
- Decision support for CM
- Design and lifecycle integrity
- Design for CM and maintenance
- Engineering standards in CM
- Equipment troubleshooting
- Failure assessment, failure consequences
- FMEA and FMECA
- Future directions for CM
- Instrumentation for CM
- Integrated vehicle health management (IVHM)
- IT in CM
- Machinery failure analysis and prevention
- Maintenance
- Maintenance planning, scheduling and control
- Materials and structural health monitoring
- Modelling and signal processing for CM
- NDT
- Optimisation in CM
- Pattern recognition for CM
- Physics of failure, fault/failure modes
- Prognostics
- Repair and overhaul
- Risk assessment
- Root cause analysis
- Sensors and actuators
- Through-life support
- Wireless CM

Other relevant topics are welcome
www.cm-mfpt.org

Structured and Industrial Sessions, Sponsorship and Exhibition

Brief proposals for structured sessions should be submitted by recognised professionals. Brief proposals for industrial sessions should be submitted by leading representatives of major trade associations, institutions, corporations, industrial companies and consortiums. Proposals should be submitted to karen.cambridge@bindt.org

A substantial discount is available for organisers of structured sessions in recognition of the hard work involved. Organisers will be awarded the opportunity to present a 'specialised keynote presentation' at the beginning of the session and will be acknowledged on the conference website and proceedings, which will be distributed worldwide.

Leading companies may wish to take a more visible sponsor role in this international event. Sponsors will be acknowledged on the conference website and in the proceedings, which will be distributed worldwide. Sponsors and exhibitors will have an opportunity to organise industrial sessions to highlight their activities and give a presentation at the plenary spotlight session. The exhibition will run on the first and second days of the conference. Details of sponsorship and exhibition packages are available online. A substantial discount on exhibition fees is available for BINDT Corporate Members.

www.cm-mfpt.org

The Venue

The Principal Grand Central Hotel, Glasgow, was originally built in the late 19th century as a British railway hotel. One of the city's most prestigious buildings, this iconic hotel is still a much-loved landmark in Glasgow's skyline, set within the hub of the Style Mile and at the centre of the city's many attractions.

With excellent transport links by road, rail and air, the Principal Grand Central Hotel benefits from a great central location; it is an ideal venue for the Sixteenth International Conference on Condition Monitoring and Asset Management.

The Principal Grand Central Hotel is conveniently attached to the Glasgow Central Station and the entrance is located on the main station concourse. Queen Street Station is an eight-minute walk from the venue. The M8 motorway network is four miles and approximately a ten-minute drive from the hotel. Glasgow Airport is eight miles, or 15 minutes via a taxi, and Prestwick Airport is 30-40 minutes from the hotel by train.

Located on the River Clyde, Glasgow has been transformed from an industrial city to the country's cultural centre, with its excellent museums, art galleries, concert venues and festivals. Its Gaelic name meaning 'lovely green place' is appropriate, given its 70 parks and open spaces. Music lovers of all kinds will find plenty of things to do in Glasgow, known as Scotland's music capital, with venues that include the Theatre Royal (home of the Scottish Opera) and the Concert Hall (home of the Royal Scottish Orchestra). Glasgow's Kelvingrove Art Gallery and Museum fills a red sandstone Victorian castle. The Burrell Collection, in Pollok Country Park, shows art and antiques donated to the city by a local shipping magnate. Art Nouveau buildings by local architect Charles Rennie Mackintosh include Sauchiehall Street's Willow Tearooms and Bellahouston Park's House for an Art Lover. The Clyde Waterfront incorporates the futuristic Glasgow Science Centre with interactive displays. Pedestrianised Buchanan Street has upmarket boutiques and the East End is home to the sprawling 'Barras' weekend flea market.

The Principal Grand Central Hotel is attached to Glasgow Central Station, which is the busiest railway station in Scotland. The award-winning venue is ideal for conferences, training, business meetings and banquets and makes any event truly memorable. At the Tempus Restaurant & Bar, discover seasonal locally sourced food and drink that showcases the very best of Scottish cuisine and culture. A recently refurbished bar, Champagne Central, overlooks Central Station and evokes the golden age of travel, while Deli Central offers quick food on the go with a special focus on local favourites. Free, superfast Wi-Fi with a maximum bandwidth of 100 Mb is available throughout the hotel.

BINDT has secured a limited number of bedrooms at the Principal Grand Central Hotel for an excellent discounted rate. Please see the CM website for further details and ensure that you reserve your room as early as possible. Alternative accommodation will be available nearby; again, please go to the website for further details.

www.cm-mfpt.org



Best Paper Competition for Students and People in the Early Stages (first five years) of their Career

The winning paper of the 'Len Gelman Award' will be selected based on both the quality of the paper and the presentation. Winner(s) will be awarded certificate(s) and the presenting author will receive a cash sum of £250 and free BINDT membership for one year.

To enter this competition, please indicate that you wish your paper to be considered when submitting online.

Social Programme

Full-time delegates of the conference will be able to participate in an evening social programme. The option to book for part-time delegates will be available upon request. An evening event on Tuesday (full details to follow online) will provide you with the perfect opportunity to experience Glasgow, as well as to network with other conference attendees and forge useful alliances with other people in the condition monitoring industry. On the Wednesday evening there will be a gala dinner, with fine food and wine being served in a friendly, relaxed setting.

Registration

For details and costs of full-time and part-time registration please visit the conference website. The full-time delegate registration fee covers your attendance at all sessions and the exhibition, a proceedings CD, coffee breaks, lunches and evening entertainment.

Cancellation penalty: less than two weeks before the event – 50% of conference fees. BINDT has always recognised the importance of encouraging students to participate in this major international event. As a gesture to celebrate the sixteenth international conference, the Institute will be providing generous sponsorship of student registrations in 2019, resulting in a major reduction in fees for student attendance.

www.cm-mfpt.org

About The Organisers

BINDT is the internationally recognised focal point for CM and NDT and it is the professional institute for all those engaged in CM and NDT. It is concerned with education, training, certification and the advancement of the science and practice of the subjects. www.bindt.org

The Condition Monitoring Technical Committee 'COMADIT' is the specialist committee within BINDT promoting best practice and exchange of knowledge within the condition monitoring and diagnostic community worldwide. www.bindt.org/comadit

The ISCM is an international forum for individuals and organisations with an interest in condition monitoring. Its purpose is to bring together an international community with the common aim of achieving excellence in the development and practice of condition monitoring and related diagnostic technologies. www.bindt.org/iscm

The US Society for MFPT is an interdisciplinary technical organisation strongly oriented towards practical applications. The MFPT Society acts as a focal point for technological developments that contribute to mechanical failure reduction or prevention. www.mfpt.org

