



ICMIAM 2026

Programme

**7th International Conference on
Maintenance and Intelligent
Asset Management**



1–3 September 2026



The University of Huddersfield,
Huddersfield, UK

— ORGANISER —

University of
HUDDERSFIELD
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Welcome to ICMIAM 2026

Dear Delegates,

Welcome to the 7th International Conference on Maintenance and Intelligent Asset Management (ICMIAM 2026), hosted by the University of Huddersfield from 1st to 3rd September 2026.

ICMIAM 2026 provides an international forum for researchers, engineers, asset managers, industry practitioners and decision-makers to share knowledge and experience across maintenance, reliability, diagnostics, smart sensing, energy systems, sustainable infrastructure, safety and emerging intelligent technologies. The final technical programme brings together 131 papers, comprising 112 in-person and 19 online presentations, organised around five major research themes.

Across the three days of the conference, delegates will hear keynotes and invited contributions from academia and industry, participate in focused theme-based technical sessions and practical workshops, explore a technology demonstration, and exchange ideas with colleagues working across a wide range of asset-intensive sectors. The programme is designed to support both specialist discussion and wider interdisciplinary collaboration.

We would like to thank all authors for their dedicated work and for sharing their research and experience. We also extend our thanks to the reviewers, keynote and invited speakers, session chairs and co-chairs, partner organisations and sponsors for their valuable contribution to ICMIAM 2026. We hope that your visit to Huddersfield is both enjoyable and rewarding, and that the conference leads to new collaborations and practical advances in maintenance and intelligent asset management.

ICMIAM 2026 Organising Committee

Conference Organisers

ICMIAM 2026 Organising Committee, University of Huddersfield

Item	Details
Conference	7th International Conference on Maintenance and Intelligent Asset Management (ICMIAM 2026)
Dates	1–3 September 2026
Venue	University of Huddersfield, Queensgate, Huddersfield HD1 3DH, United Kingdom
Technical programme	131 scheduled papers: 112 in-person and 19 online
Paper presentation slot	10-minute presentation + 5-minute Q&A
Keynote / invited presentation slot	20-minute presentation + 10-minute Q&A (where indicated in the programme)
Proceedings	Accepted peer-reviewed papers are planned for publication in the conference proceedings by Springer Nature and indexing in Scopus, subject to conference publication requirements.
Website	www.icmiam.com

ICMIAM 2026 Organising Committees

ICMIAM 2026 is supported by an international network of academic and professional colleagues who contribute to strategic guidance, conference leadership, technical review and the local delivery of the event.

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Prof. Raghuvir Pai	Manipal Institute of Technology, India

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Volunteers

Name	Affiliation
Elnaz Sohani (PhD Student)	University of Huddersfield, UK
Alireza Fatahian (PhD Student)	University of Huddersfield, UK
Mohammad Zunnurain (PhD Student)	University of Huddersfield, UK
Nethaji Nagarajan Gopal (PhD Student)	University of Huddersfield, UK
George Phythian (PhD Student)	University of Huddersfield, UK
Farbod Dadashbaki (PhD Student)	University of Huddersfield, UK
Mohammad Hamza (PhD Student)	University of Huddersfield, UK
Muhammad Faraz Mahmood (PhD Student)	University of Huddersfield, UK
Muhammad Javed (PhD Student)	University of Huddersfield, UK
Hakeem Busari (Master Student)	University of Huddersfield, UK
Muhammad Atif (PhD Student)	University of Huddersfield, UK
Dr Deepak Meerakaviyad (KTP Associate)	University of Huddersfield, UK
Mubarak Aderibigbe (PhD Student)	University of Huddersfield, UK
Aminu Isiyaku (PhD Student)	University of Huddersfield, UK

International Organising Committee

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Dr Esmaeel Fatahian	University of Huddersfield, UK

Conference aims

- Raise awareness of new and emerging developments, technologies, and opportunities in maintenance, reliability, and intelligent asset management.
- Disseminate best practice, high-quality research, industrial applications, and successful approaches to the effective management of engineering assets.
- Encourage knowledge exchange, interdisciplinary discussion, networking, and collaboration among engineers, researchers, industry professionals, policymakers, and practitioners.
- Promote sustainable, resilient, reliable, and performance-driven approaches to the design, operation, maintenance, and lifecycle management of engineering assets.
- Strengthen the connection between academic research and industrial practice, supporting the translation of innovative methods and technologies into real-world asset-management solutions.

Major research themes

The ICMIAM 2026 technical programme is structured around five major research themes, reflecting the conference's multidisciplinary focus on maintenance, intelligent asset management, diagnostics, sustainability, safety and emerging engineering technologies.

Theme	Research area	In-person	Online	Total
Theme 1	Asset Management & Maintenance Systems	25	2	27
Theme 2	Diagnostics, Monitoring & Smart Sensing	30	6	36

Theme	Research area	In-person	Online	Total
Theme 3	Energy Systems, Built Environment & Sustainability	34	4	38
Theme 4	Safety, Risk, Security & Ethics	9	4	13
Theme 5	Advanced & Emerging Applications	14	3	17
Total		112	19	131

Theme scope

- Theme 1 – Asset Management & Maintenance Systems: Covers intelligent and standards-based asset management, lifecycle optimisation, reliability engineering, maintenance planning, predictive and condition-based maintenance, and data-driven decision support for engineering assets.
- Theme 2 – Diagnostics, Monitoring & Smart Sensing: Focuses on structural health monitoring, non-destructive testing, smart sensing, signal processing, AI- and IoT-enabled diagnostics, condition monitoring, fault detection, and remaining-useful-life estimation.
- Theme 3 – Energy Systems, Built Environment & Sustainability: Addresses energy technologies, smart and healthy buildings, net-zero systems, sustainable manufacturing, circular engineering, low-carbon infrastructure, resource efficiency, and environmentally responsible asset management.
- Theme 4 – Safety, Risk, Security & Ethics: Encompasses safety and risk engineering, cybersecurity, risk-informed asset-management frameworks, trustworthy artificial intelligence, privacy, resilience, governance, and regulatory considerations.
- Theme 5 – Advanced & Emerging Applications: Brings together innovative applications in aerospace engineering, cyber-physical systems, digital twins, smart manufacturing, healthcare and biomedical engineering, robotics, intelligent systems, and other emerging technologies.

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Overall programme

1–3 September 2026

Pre-conference welcome reception: Monday 31 August 2026, 17:00–21:00, Sky Indian Restaurant, 70 John William Street, Huddersfield, HD1 1EH.

Tuesday 1 September 2026 (Day 1)

Time	Programme	Location
08:00–10:00	Registration	Arium
10:00–10:30	VC Inauguration — Host: Professor Leigh Fleming	OA4/02
10:30–11:00	Tea/Coffee Break	OA4/01
11:00–11:30	Professor Gopinath (Gopi) Chattopadhyay – Keynote	OA4/02
11:30–12:00	Professor Uday Kumar	OA4/02
12:00–12:30	Mr. Matthew Charlton	OA4/02
12:30–13:30	Lunch	OA4/01
13:30–14:00	Invited speeches in parallel rooms	OA6/07 (30); OA6/10 (36); OA7/02 (30); OA7/26 (30); OA7/27 (40)
14:00–15:30	Parallel technical paper sessions	OA6/07 (30); OA6/10 (36); OA7/02 (30); OA7/26 (30); OA7/27 (40)
15:30–16:00	Tea/Coffee Break	OA4/01
16:00–17:00	Parallel continuation sessions	OA6/07 (30); OA6/10 (36); OA7/02 (30); OA7/26 (30); OA7/27 (40)
17:00–18:00	Networking	OA4/01

Wednesday 2 September 2026 (Day 2)

Time	Programme	Location
09:00–10:00	Registration	Arium
09:00–09:30	Professor Prabhakar V. Varde	OA4/02
09:30–10:00	Professor Parikshit Goswami	OA4/02
10:00–10:30	Professor Jyoti K. Sinha	OA4/02
10:30–11:00	Tea/Coffee Break	OA4/01
11:00–11:30	Mr. Alistair Carvell	OA4/02
11:00–12:00	Workshop 2	OA4/01
11:30–12:00	Professor (Emeritus) Andrew Ball (Online)	OA4/02
12:00–12:30	Dr Anne Gibbs	OA4/02
12:30–13:30	Lunch	OA4/01
13:30–14:00	Invited speeches in parallel rooms	OA6/07 (30); OA6/10 (36); OA7/02 (30); OA7/26 (30); OA7/29 (58) Hybrid; OA7/31 (60) Hybrid
14:00–15:30	Parallel technical paper sessions	OA6/07 (30); OA6/10 (36); OA7/02 (30); OA7/26 (30); OA7/29 (58) Hybrid; OA7/31 (60) Hybrid
15:30–16:00	Tea/Coffee Break	OA4/01
16:00–17:00	Parallel continuation sessions and online/hybrid presentations	OA6/07 (30); OA7/02 (30); OA7/26 (30); OA7/29 (58) Hybrid
17:00–18:00	Networking	OA4/01
19:00–23:00	Gala Dinner (for pre-booked delegates)	Accu Stadium, Stadium Way, Huddersfield, HD1 6PG

Thursday 3 September 2026 (Day 3)

Time	Programme	Location
09:00–10:00	Registration	Arium
09:00–09:30	Mr. François-Baptiste Cartiaux – Invited Industrial Talk	OA4/02
09:30–10:00	Professor Patricia Tzortzopoulos	OA4/02
10:00–10:30	Professor Prashant Kumar (Online)	OA4/02
10:30–11:00	Tea/Coffee Break	OA4/02
11:00–11:30	Professor Mourad Bentahar	OA4/02
11:30–12:00	Professor Jan Harm Christiaan Pretorius	OA4/02
12:00–12:30	Ms. Fiona Conor – Invited Industrial Lecture	OA4/02
12:30–13:30	Lunch	OA4/01
13:30–14:00	Mr. Ashish Rakheja – Invited Lecture (Online)	OA7/29 (58) Hybrid
14:00–15:30	Parallel technical paper sessions	OA6/07 (30); OA6/10 (36); OA7/02 (30); OA7/26 (30)
14:00–15:30	Online presentations session	OA7/29 (58) Hybrid
15:30–16:00	Tea/Coffee Break	Arium
16:00–17:00	Professor Leigh Fleming – Professorial Lecture and closing activity	OA5.5

Parallel sessions – Tuesday 1 September 2026

50 papers are scheduled on this day. Paper slots are 10 minutes presentation + 5 minutes Q&A. Each Paper ID is shown with its theme code (T1–T5); online presentations are marked Online. Continuation blocks may include cross-theme papers, as indicated by the theme tag.

T1 Asset Management | OA6/07 (30) / Tuesday 1 September 2026 (Day 1)

Main block — Chair: Professor Gopinath (Gopi) Chattopadhyay; Co-chair: Professor Ajay Kumar Pandey; Student volunteer: Muhammad Javed

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Professor Marco Corradi – Invited Speech	
14:00–14:15	67 · T1	A Multi-Criteria Framework for Prioritising Robotic Automation of Rolling Stock Maintenance and Inspection Tasks	Hamidreza Faham, Gareth Tucker and Soran Parsa
14:15–14:30	84 · T1	Meta-Model for Comparing Process Models for Developing Data-Driven Industrial Services and Derived Differentiation Criteria	Anna Maria Binder de Serdio, Dirk Stegelmeyer, Leigh Fleming and Rakesh Mishra
14:30–14:45	89 · T1	Digital Twin Approach to Predictive Failure and Cavitation Mitigation in Control Valve Systems	Qingyun Bu, Anshu Gaur, Hossein Fatahian and Rakesh Mishra
14:45–15:00	113 · T1	IoT-Based digital shadow Implementation of Energy-intensive system for Robust performance monitoring	Nonso Aghaukwu and Naeem Mian
15:00–15:15	93 · T1	An Asset-Centric Cost Optimization Framework for Slurry Transport in Non-Circular Ducts	Nyararai Mukandiwa, Hossein Fatahian and Rakesh Mishra
15:15–15:30	92 · T1	Digitally Enabled Production Control: Configuring Infrastructure to Improve Productivity in Large-Scale Construction	Kevin McHugh, Patricia Tzortzopoulos and Saikiran Rudra
15:30–16:00	—	Tea/Coffee Break	

T1 Asset Management | OA6/07 (30) / Tuesday 1 September 2026 (Day 1)

Continuation block — Chair: Professor Marco Corradi; Co-chair: Dr Gina Javanbakht; Student volunteer: Muhammad Javed

Time	Paper ID / Theme	Title	Authors
16:00–16:15	56 · T1	Comparative Evaluation of Bagasse Dryers: Selection, Maintenance and Operational Parameter Analysis	Lilies K. Kathumbi, Gina Javanbakht, John M. Allport and Jack Edwards
16:15–16:30	20 · T1	DASH: A Multi-Tenant Real-Time Visualisation and Monitoring Platform for Intelligent Asset Management of Heterogeneous Precision Manufacturing Equipment	Veda Salkar, Ashley Cusack, Andrew Bell, Joe Kelly and Andrew Longstaff
16:30–16:45	142 · T1	Failure Behaviour Fragmentation Analysis of Aircraft Maintenance Narratives for Component-Level Reliability Interpretation	Venkata Sai Prashanth Sudula, Gopinath Chattopadhyay, Rakesh Mishra and Jhareswar Maiti
16:45–17:00	205 · T1	Digital Twin Integration of Hazard-Based Maintenance Scheduling: An Advisory Architecture with Auditable Decision Triggers	Mohamad Afiq Amiruddin Parnon; Kassandra A. Papadopoulou; Mohamed Ali Mohamed Alaswed; Jyoti K. Sinha

T2 Diagnostics & Monitoring | OA6/10 (36) / Tuesday 1 September 2026 (Day 1)

Main block — Chair: Professor Uday Kumar; Co-chair: Dr Taimoor Asim; Student volunteer: Aminu Isiyaku

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Professor Maneesh Singh – Invited Speech	
14:00–14:15	75 · T2	An Unsupervised Learning Framework Using Narrow Bands for Acoustic Emission Source Detection in Composite Wind Turbine Blades	Deba Datta Mandal, Farbod Dadashbaki, Shirsendu Sikdar and Rakesh Mishra
14:15–14:30	98 · T2	An advanced analysis method of acoustic emission signals for characterization of cracking modes in reinforced concrete structures	Mourad Bentahar, Deba Datta Mandal, Abderrahim El Mahi, Alexandre Brouste, Rachid El Guerjouma, Silvio Montresor, François-Baptiste Cartiaux and Jorge Semiao
14:30–14:45	188 · T2	From Signal to Latent Space: A Review of Representation Reduction and Recalibration in Deep Learning for Vibration-based Fault Diagnosis	Chiheng Huang, Attia Bibi, Haiyan Miao and Wenxian Yang
14:45–15:00	26 · T2	A data driven approach for fault severity estimation using acoustic and vibration signals in a globe valve.	Nethaji Nagarajan Gopal
15:00–15:15	69 · T2	A Lifecycle-Aware Evaluation Framework for Battery State-of-Health Estimation	Youssif Ahmed, Muhammad Saad Iqbal, Hamza Aagela and Waleed Gheth
15:15–15:30	177 · T2	Baseline-free damage detection under environmental variability using a normalized FRF–WPPE–LOF approach	Yutao Zhou and Jyoti Sinha
15:30–16:00	—	Tea/Coffee Break	

T2 Diagnostics & Monitoring | OA6/10 (36) / Tuesday 1 September 2026 (Day 1)

Continuation block — Chair: Professor Maneesh Singh; Co-chair: Dr Hossein Fatahian; Student volunteer: Aminu Isiyaku

Time	Paper ID / Theme	Title	Authors
16:00–16:15	202 · T2	A novel calibration approach for improved cavitation classification in control valves	Harry Broadbent, Kenneth Delaney and Rakesh Mishra
16:15–16:30	21 · T2	An AI-Driven Model for Monitoring Control Valve Pressure Drop in Multiphase Pipelines	Ilyasu Anda, Rakesh Mishra, Aliyu M. Aliyu and Shamaila Iram
16:30–16:45	210 · T2	Guided Wave based Structural Health Monitoring of a Stainless Steel Pressure Vessel used in Hydrogen Storage	Shirsendu Sikdar, Anjaly Pillai and Mohammad Hamza
16:45–17:00	13 · T2	Design of an Interdigitated Capacitive Sensor for Microfibre Detection in Indoor Environment	Yomna Elsaboni, Rakesh Mishra, Samira Awwal, Catherine Hill and Leigh Fleming

T3 Energy & Sustainability | OA7/02 (30) / Tuesday 1 September 2026 (Day 1)

Main block — Chair: Professor Maneesh Singh; Co-chair: Professor Wenxian Yang; Student volunteer: Alireza Fatahian

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Professor John Allport – Invited Speech	
14:00–14:15	183 · T3	Chip Morphology and Cutting Force in Milling of Additively Manufactured Ti-6Al-4V: Statistical Analysis and SEM-Based	Abdulkadir Mohammed Sambo1*, Muhammad Younas1 , Taimoor Asim
14:15–14:30	103 · T3	Experimental Investigation of Burr Size and Surface Quality in End Milling Process of Al6082-T6 Alloy	Muhammad Younas, Abdulkadir Sambo and Taimoor Asim
14:30–14:45	58 · T3	A Degradation-Aware Mixed-Integer Linear Programming Framework for Stacked Grid Services from Battery Energy Storage Systems	Muhammad Saad Iqbal and Hamza Aagela
14:45–15:00	59 · T3	Multi-Year Lifecycle Optimisation of Battery Energy Storage Systems with Degradation-Aware Service Stacking and Inverter Flexibility Management	Muhammad Saad Iqbal, Youssif Ahmed and Hamza Aagela
15:00–15:15	44 · T3	Dynamic biogas simulation model “A reduced ADM1 based model for mesophilic batch anaerobic digestion of mixed food waste”.	Celestina Ezenwajiaku, Aliyu Aliyu, Samson Sogbaike, Suneela Sadar and Amir Badiee
15:15–15:30	184 · T3	CFD Simulation of a Bubbling Fluidized Bed Regenerator for K ₂ CO ₃ Sorbent Production in CO ₂ Capture Applications	Darlington Amadi, Aditya Karnik and Mamdud Hossain
15:30–16:00	—	Tea/Coffee Break	

T3 Energy & Sustainability | OA7/02 (30) / Tuesday 1 September 2026 (Day 1)

Continuation block — Chair: Dr Naeem Shaukat Mian; Co-chair: Dr Esmaeel Fatahian; Student volunteer: Alireza Fatahian

Time	Paper ID / Theme	Title	Authors
16:00–16:15	35 · T3	Self-Adaptive Passive Thermoelectric Energy Harvesting for Wireless Condition Monitoring of CNC Machine Tools	Augustine Oppong, Naeem Mian, Simon Fletcher, Andrew Longstaff and Nicholas Roberts
16:15–16:30	176 · T3	Fenton-Assisted Nano-Remediation of Petroleum-Contaminated Soil using Magnetite Nanoparticles: A Full Factorial Design Study	Mubaraq Adewale Razaq, Omokehinde Ayodeji and Taimoor Asim
16:30–16:45	180 · T3	Electrochemical Recycling of Carbon Fibre for High-Strength Polypropylene Filaments in Additive Manufacturing	Behzad Abdi and Naeem S. Mian
16:45–17:00	27 · T3	Waste-to-Energy Approach: Development of Tissue Paper-Derived Carbon Nanofluids for Solar Thermal Energy Harvesting	Vishal Bhalla, Abhishek Singh Kashyap, Daya Shankar Pandey and Sudip K. Batabyal

T4 Safety, Risk, Security & Ethics | OA7/26 (30) / Tuesday 1 September 2026 (Day 1)

Main block — Chair: Dr Ali Aliyu; Co-chair: Dr Sulaiman Fadlallah; Student volunteer: Elnaz Sohani

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Professor Jhareswar Maiti – Invited Speech	
14:00–14:15	91 · T4	Adaptive Hybrid Physical-Layer Authentication for Low-Power LoRaWAN IoT Nodes: Four Failure Modes and a Lightweight Decision Framework	Mohammed Bello Aliyu
14:15–14:30	66 · T4	Advancements in Multi-Hazard Risk Assessment at the Urban Scale	Maham Shahid and Nicola Chieffo
14:30–14:45	107 · T3	Green hydrogen production with AEM pressure electrolyser - using an advanced electrolyte management concept	Enno Wagner, Jens Rau and Rakesh Mishra
14:45–15:00	88 · T4	AISHIELD: An Edge-First, Privacy-Preserving Platform for Multi-Zone Presence Detection and Predictive Thermal Preheating in Smart Homes	Aisha Al Debri, Fuad Alhabill, Hanein Hassan and Hamza Aagela
15:00–15:15	172 · T4	Addressing Key Safety Hazards through Proactive Risk Control System in an Integrated Steel Plant	Anjali Ghosh, Jhareswar Maiti and Neeraj Kumar Sinha
15:15–15:30	79 · T4	Risk-Aware Trust-Weighted Federated Learning for Resilient Healthcare Monitoring under Byzantine Clients	David Gana and Anju Johnson
15:30–16:00	—	Tea/Coffee Break	

T4 Safety, Risk, Security & Ethics | OA7/26 (30) / Tuesday 1 September 2026 (Day 1)

Continuation block — Chair: Dr Nicola Chieffo; Co-chair: Dr Deba Datta Mandal; Student volunteer: Elnaz Sohani

Time	Paper ID / Theme	Title	Authors
16:00–16:15	160 · T2	Quantifying Human Emotions: A Multi-Modal Framework Using Facial Expressions and Physiological Signals	Sinjana Choudhuri, J Maiti and Priyadarshi Patnaik
16:15–16:30	87 · T2	Guided Waves based Monitoring of Degradation Levels in Orthopedic Implants	Shirsendu Sikdar and Anjaly Pillai
16:30–16:45	152 · T4	Displaced risk: how front-end decisions in renewable energy projects shape operational and safety risk years before the operator arrives	Rakesh Maharaj, Khalida Suleymanova and Arvid Keprate
16:45–17:00	208 · T4	Risk and Cybersecurity Challenges in AI-Enabled Decentralised Asset Trading Platforms: A Structured Review and Layered Classification Framework	Baljeet Kaur, Hari Krishna Menta Venkata and Sai Prashanth Sudula Venkata

T5 Advanced Applications | OA7/27 (40) / Tuesday 1 September 2026 (Day 1)

Main block — Chair: Dr Faisal Asfand; Co-chair: Dr Ahmed Hamood; Student volunteer: Mohmmad Zunnurain

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Professor Konstantina Lambrinou – Invited Speech	
14:00–14:15	182 · T5	Aerodynamic Data Reconstruction and Inverse Design Framework of a 2D Aerofoil Using Proper Orthogonal Decomposition	Muhammad Faraz Mahmood, Rakesh Mishra and Naeem Shaukat Mian
14:15–14:30	199 · T5	Numerical Assessment of RANS Turbulence Modelling on Ice-Roughened Slat Gap Flow Under Varying Liquid Water Content	Pratham Chauhan, Mohammad Jafari and Professor Artur Jaworski
14:30–14:45	4 · T5	Optimizing Inhalation Systems through Experimental Study of Particle Deposition and Performance Management	Alireza Fatahian, Prof Rakesh Mishra, Dr Hossein Fatahian and Dr Kofi Asare-Addo
14:45–15:00	38 · T5	HFSS-Based Breast Phantom Modelling and Microstrip Patch Antenna Design for Early Breast Tumour Detection	Areej Safdar, Behnaz Sohani, Faiz Iqbal and Aliyu Aliyu
15:00–15:15	62 · T5	Frequency-Informed Magnetic Control of von Kármán Vortex Shedding Behind a Confined Bluff Body	Fardin Jahanbakhsh Shojae, Mohammad Jafari and Artur Jaworski
15:15–15:30	71 · T2	Integrating LoRaWAN with the UK Fixed Telecom Network for Railway Predictive Maintenance	Youssif Ahmed, Hamza Aagela, Faheem Khan, Waleed Gheth and Muhammad Saad Iqbal
15:30–16:00	—	Tea/Coffee Break	

T5 Advanced Applications | OA7/27 (40) / Tuesday 1 September 2026 (Day 1)

Continuation block — Chair: Professor Prabhakar V. Varde; Co-chair: Dr Ali Aliyu; Student volunteer: Mohmmad Zunnurain

Time	Paper ID / Theme	Title	Authors
16:00–16:15	109 · T3	Durability and Mechanical Behaviour of Recycled PET-Modified Polyester Resin and GFRP Bars under Aggressive Environments	Luca Malazzini, Vincenzo Romanazzi, Marco Corradi, Marianovella Leone, Alfonso Maffezzoli and Maria Antonietta Aiello
16:15–16:30	72 · T5	Enhancing Safety and Efficiency of LPG Fractionation Fired Heaters through Advanced Automated Control: A Case Study of Zueitina Oil Company Libya	Ali Afkireen, Hamza Aagela and Bubaker Abdrabah
16:30–16:45	179 · T5	Mechanical properties of epoxy resin filled 3D printed parts under different loading conditions	Behzad Abdi and Naeem S. Mian
16:45–17:00	126 · T2	Remaining Useful Life Prediction for Locomotive Compressor Systems Using Machine Learning: A Heavy-Haul Fleet Case Study	B.B.S. Makhanya; J.H.C. Pretorius

Parallel sessions – Wednesday 2 September 2026

50 papers are scheduled on this day. Paper slots are 10 minutes presentation + 5 minutes Q&A. Each Paper ID is shown with its theme code (T1–T5); online presentations are marked Online. Continuation blocks may include cross-theme papers, as indicated by the theme tag.

T1 Asset Management | OA6/07 (30) / Wednesday 2 September 2026

Main block — Chair: Professor Jyoti K. Sinha; Co-chair: Dr Shamaila Iram; Student volunteer: Mohammad Hamza

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Professor Wenxian Yang – Invited Speech	
14:00–14:15	111 · T1	Intelligent Asset Management of EOT Cranes: A Data-Driven Approach	Kshitij Mishra and Abhyuday
14:15–14:30	29 · T1	Health-Centric Risk-Weighted Maintenance Decision Models for Smart Home Asset Management	Catherine Hill, Samira Awwal, Yomna El Saboni, Rakesh Mishra and Leigh Fleming
14:30–14:45	130 · T1	Design and Implementation of an IoT Telemetry Database for Sensor-Informed Digital Twins in the Huddersfield Smart House	Aminu Isiyaku and Rakesh Mishra
14:45–15:00	115 · T1	Testing Economies of Heavy Duty Compressors Facilities	Kshitij Mishra, Swastika Mishra and Abhyuday
15:00–15:15	167 · T1	Predicting water main failures from climate-driven soil movement: a correlation-based approach for future risk assessment	Ella Fothergill
15:15–15:30	24 · T1	Maturity assessment of maintenance management practices: A ferro-alloy smelter case-study	Mohamad Afiq Amiruddin Parnon; Kassandra A. Papadopolou; Mohamed Ali Mohamed Alaswed; Jyoti K. Sinha
15:30–16:00	—	Tea/Coffee Break	

T1 Asset Management | OA6/07 (30) / Wednesday 2 September 2026

Continuation block — Chair: Prof. Arvind; Co-chairs: Professor Konstantina Lambrinou/Dr Shamaila Iram; Student volunteer: Mohammad Hamza

Time	Paper ID / Theme	Title	Authors
16:00–16:15	133 · T4	Hazard Assessment of Digital Twin Implementation in Wind Turbine Operations and Maintenance	Harsh Verma, Maneesh Singh, Arvind Keprate and Gunjan Soni
16:15–16:30	3 · T3	Floating-Aware Blade Design for Fatigue Reduction in Offshore Wind Turbines	Mohammad Zunnurain, Rakesh Mishra and Hossein Fatahian
16:30–16:45	22 · T1	Agentic LLMs for Trustworthy Maintenance Scheduling: Uncertainty-Aware Decision Support for Offshore Wind	Louis Donaldson, Koorosh Aslansefat, David Parker and Yiannis Papadopoulos
16:45–17:00	28 · T5	Enhancing telecommunications testing environments with network digital twins	P.P. Mabuza; T.N.D. Mathaba; Dr M. Kao

T2 Diagnostics & Monitoring | OA6/10 (36) / Wednesday 2 September 2026

Main block — Chair: Professor John Allport; Co-chair: Dr Lukesh Parida; Student volunteer: Farbod Dadashbaki

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Dr Shirsendu Sikdar – Invited Speech	
14:00–14:15	140 · T2	A Novel SHM architecture based on Electro Mechanical Impedance Guided by Physics Informed Digital Twins and Machine Learning for Steel Structure Monitoring	Mayank Kamal, Lukesh Parida and Sauvik Banerjee
14:15–14:30	147 · T2	A Novel SHM framework for autonomous diagnosis using reusable acoustic emission (AE) sensors via electro mechanical impedance (EMI) for weld damage in steel structures	Lukesh Parida, Mayank Kamal and Sauvik Banerjee
14:30–14:45	32 · T2	Dynamics of Monodispersed Oil Droplets Injected in a Deoiling Hydrocyclone	Okwunna Maryjane Ekechukwu, Taimoor Asim and Rakesh Mishra
14:45–15:00	178 · T2	CFD Analysis of Flow Distribution in a Complex-Pipe System with Sudden Junction	Kirti Singh and Kesheo Prasad
15:00–15:15	139 · T2	Swirl-Induced Phase Redistribution for Enhanced Oil-Water Separation Downstream of a Control Valve	Muhammad Atif, Rakesh Mishra, Matthew Charlton and Andrew Limebear
15:15–15:30	105 · T2	Spatio-Temporal Dynamics of the Vortical Structures in Oscillating Jet Nozzles	Mubaraq Adewale Razaq, Taimoor Asim and Barry Reid
15:30–16:00	—	Tea/Coffee Break	

T3 Energy & Sustainability | OA7/02 (30) / Wednesday 2 September 2026

Main block — Chair: Professor Prabhakar V. Varde; Co-chair: Professor Wenxian Yang; Student volunteer: Nethaji Nagarajan Gopal

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Professor Ajay Kumar Pandey – Invited Speech	
14:00–14:15	99 · T3	From Heat to Table and Tank: A Geothermal Pathway for Decarbonising Food Production and Transport Systems	Oscar Utomo, Amir Badiee, Aliyu Aliyu and Simon Pearson
14:15–14:30	19 · T3	Hybrid ANN-Genetic Algorithm based Optimization of Indigenous Water Droplet based TENG for Sustainable Energy Harvesting Applications	Arvind Kumar Rajput, Peerzada Aazam Fayaz and Jashan Kumar
14:30–14:45	33 · T3	Understanding Hygienic Surface Material Selection in Healthcare Facilities: Insights from Semi-Structured Interviews with Design and Clinical Stakeholders	Mouhand Abobakr and Patricia Tzortzopoulos
14:45–15:00	157 · T3	Transient Finite Element Evaluation of Torispherical Head Geometry in Hydrogen Pressure Vessels with Comparative Study to Hemispherical and Ellipsoidal Head	Abdullah Elshennawy, Ahmed Hussain Ali Abdelrahman, Shirsendu Sikdar, Mosbeh R. Kaloob, Mohamed M. Awad and Rana Shahin
15:00–15:15	54 · T3	Assessment of VOF and Species Transport Models for Hydrogen-Methane Pipe Flows: Implications for Mixing, Stratification and Pressure Drop	Kenneth Delaney, Harry Broadbent and Rakesh Mishra
15:15–15:30	155 · T3	A CFD-coupled ANN model for spatial prediction of mould growth risk in a controlled indoor environment: a single room case study	Mubarak Tolani Aderibigbe, Rakesh Mishra, Naeem Mian and Aliyu Aliyu
15:30–16:00	—	Tea/Coffee Break	

T3 Energy & Sustainability | OA7/02 (30) / Wednesday 2 September 2026

Continuation block — Chair: Dr Taimoor Asim; Co-chair: Dr Hossein Fatahian; Student volunteer: Nethaji Nagarajan Gopal

Time	Paper ID / Theme	Title	Authors
16:00–16:15	65 · T2	An Intelligent IIoT and Edge-Enabled Framework for Safe Real-Time Monitoring of Petroleum Storage Tanks	Bubaker Abdrabah
16:15–16:30	15 · T3	Circular Economy Strategies for Retrofitting Architectural Assets: Material Efficiency and Structural Performance	Samira Awwal, Rakesh Mishra, Esmaeel Fatahian, Hossein Fatahian, Yomna El Saboni, Catherine Hill and Leigh Fleming
16:30–16:45	181 · T3	The Catalytic Effect of ESG on Green Bond Issuance: A Panel Threshold Analysis	Arsalan Haneef Malik, Jahanzaib Alvi, Muhammad Rehan and Awais Ur Rehman
16:45–17:00	51 · T3	Multi-Fuel Combustion Analysis of Ammonia, Gasoline, and Hydrogen in a Spark Ignition Engine	Muhammad Usman Saeed Akhtar, Hossein Fatahian, Faisal Asfand, Muhammad Imran Khan and Rakesh Mishra

T3 Energy & Sustainability | OA7/26 (30) / Wednesday 2 September 2026

Main block — Chair: Professor Gopinath (Gopi) Chattopadhyay; Co-chair: Professor Marco Corradi; Student volunteer: George Phythian

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Prof. Arvind – Invited Speech	
14:00–14:15	110 · T3	Computational Fluid Dynamics based Flow Diagnostics of Train-roof Mounted Vertical Axis Wind Turbines	Jaidon Kurisinkal, Aidan Page, Taimoor Asim, Mubaraq Adewale Razaq and Muhammad Younas
14:15–14:30	40 · T3	Parallel operation and control for Hybrid Generators in wind farms	Eduardo Flores-Moran, Naeem S. Mian and Nigel Schofield
14:30–14:45	50 · T3	Comparative Performance and Emissions Analysis of Ammonia, Diesel, and Hydrogen in a Compression Ignition Engine	Muhammad Usman Saeed Akhtar, Frankie Jackson, Muhammad Imran Khan, Faisal Asfand and Rakesh Mishra
14:45–15:00	128 · T3	Life cycle analysis of conventional turning of Aluminium and Stainless-Steel alloys	Muhammad Younas, Finlay Ross, Taimoor Asim and Abdulkadir Sambo
15:00–15:15	101 · T4	Privacy-Preserving YOLOv11-Based Vision Fall Detection on Jetson Nano with TensorRT Deployment, Runtime Profiling, and Smart-Home Dashboard Integration	Ahmad Znin, Hamza Aagela, Aisha Al Debri and Ahmed Yousef
15:15–15:30	81 · T3	State-of-the-Art Review of Flax–Hemp Circular Bricks for Sustainable Infrastructure Asset Management and Digital Opportunities	Adebisi A. Oyegoke and Nicola Chieffo
15:30–16:00	—	Tea/Coffee Break	

T3 Energy & Sustainability | OA7/26 (30) / Wednesday 2 September 2026

Continuation block — Chair: Dr Sulaiman Fadlallah; Co-chair: Dr Deba Datta Mandal; Student volunteer: George Phythian

Time	Paper ID / Theme	Title	Authors
16:00–16:15	14 · T2	Ultrasonic Guided Wave based Damage Assessment for Wind Turbine Blades	Farbod Dadashbaki, Shirsendu Sikdar, Deba Datta Mandal, Alok Gupta, Karl Walton and Rakesh Mishra
16:15–16:30	189 · T2	Torsional Load Estimation and Stiffness Degradation Detection in Wind Turbine Blades: A Review of Measurement, Simulation, and Data-Driven Approaches	Attia Bibi, Chiheng Huang, Haiyan Miao and Wenxian Yang
16:30–16:45	5 · T3	Predictive Modelling of Indoor Thermal Comfort in Retrofitted Smart Buildings for Sustainable Asset Management	Esmaeel Fatahian, Samira Awwal, Leigh Fleming, Rakesh Mishra and Hossein Fatahian
16:45–17:00	34 · T5 / Online	PVP oil lubricated thermo-hybrid textured circular thrust pad bearing	Navneet Kumar Thakur and Arvind K. Rajput

Mixed-Theme Session | OA7/29 (58) Hybrid / Wednesday 2 September 2026

Main block — Chair: Dr Naeem Shaukat Mian (Online); Co-chair: Dr Esmaeel Fatahian; Student volunteer: Hakeem Busari

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Professor Raghuvir Pai – Invited Speech	
14:00–14:15	95 · T2 / Online	Early-stage failure detection in mechanical components within industry 4.0: a systematic review	Zakaria Bechri, Lamia Hammadi and Abdessamad El Ballouti
14:15–14:30	144 · T2 / Online	Identifying electrical and mechanical fault in induction motor using Temporal Convolution Network on limited dataset	Nagendra Singh Ranawat, Ankur Miglani and Pavan Kankar
14:30–14:45	73 · T2 / Online	Machine Learning-Based Flame Colour Classification for Intelligent Automation of LPG Fired Heaters	Ali Afkireen, Hamza Aagela and Ahmad Abdulla
14:45–15:00	149 · T2 / Online	Graph Neural Networks from Industrial SCADA Systems for Degradation Modeling	Madhu Krishna Menon
15:00–15:15	203 · T5 / Online	Investigation of Thermal Radiation Effects on Electrical MHD Jeffrey fluid Flow over a Stretching Sheet through Porous Media via Optimal Homotopy Asymptotic Method	Ramesh Yadav , Pravin K Srivastava , Abhai K Verma
15:15–15:30	153 · T1	Insights from a Correlational Analysis of Indian Railways Key Performance Indicators	Dennis Noble, Gopinath Chattopadhyay and Truong Phung
15:30–16:00	—	Tea/Coffee Break	

Mixed-Theme Session | OA7/29 (58) Hybrid / Wednesday 2 September 2026

Continuation block — Chair: Dr Ali Aliyu (Online); Co-chair: Dr Yomna ElSaboni; Student volunteer: Hakeem Busari

Time	Paper ID / Theme	Title	Authors
16:00–16:15	—	Professor Sauvik Banerjee – Invited Speech	
16:30–16:45	18 · T2 / Online	From RUL Estimation to Risk-Informed Decision Support: A Bayesian Framework for Long-Life Assets under Data Scarcity	Ravi Welandage Don, Gopinath Chattopadhyay, Joarder Kamruzzaman and Jhareswar Maiti
16:45–17:00	174 · T4 / Online	A Risk-informed Contractor HSE Performance Framework: A Case Study of Kuwait Oil Company for Proactive Safety Engineering in Oil and Gas Asset Management	Bala Siva Srikanth Adivi, Dr. Abdurrahman Alenezi, Jhareswar Maiti and Harshad Shrigondekar

Mixed-Theme Session | OA7/31 (60) Hybrid / Wednesday 2 September 2026

Main block — Chair: Dr Shamaila Iram (Online); Co-chair: Dr Gina Javanbakht; Student volunteer: Farbod Dadashbaki

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Professor Pavan Kumar Kankar – Invited Speech	
14:00–14:15	162 · T4 / Online	Factors Associated with Fatal Outcomes in Speed-Related Crashes	Sankhadeep Pramanik, Jhareswar Maiti and Bhargab Maitra
14:15–14:30	163 · T3 / Online	Sustainable bricks reinforced with natural fiber: A performance study	Neha Thakur; Priyanka Sharma; Joy pal
14:30–14:45	108 · T2	Diagnosing Recurring Subsystem Faults in a Newly Commissioned Electric Multiple Unit Fleet: A Mixed-Methods Case Study from South Africa	Vuyiswa Thala; Sunita Kruger; Leon Pretorius
14:45–15:00	168 · T4 / Online	Enhancing Safety in Lithium-Ion Battery Repurposing: A System-Theoretic Process Analysis (STPA) Approach	Madhwika Madhwika
15:00–15:15	106 · T4 / Online	Digital Behavioural Monitoring Systems: A Trustworthy Hybrid Neural-Symbolic Pipeline for the Longitudinal Profiling of Coercive Control	Dhruv Patel, Anju P. Johnson and Hamza Aagela
15:15–15:30	135 · T2 / Online	A Dual-Layer Framework for Condition Monitoring of Wind Turbine Blades	Akash Deep, Maneesh Singh and Arvind Keprate
15:30–16:00	—	Tea/Coffee Break	

Parallel sessions – Thursday 3 September 2026

31 papers are scheduled on this day. Paper slots are 10 minutes presentation + 5 minutes Q&A. Each Paper ID is shown with its theme code (T1–T5); online presentations are marked Online.

T1 Asset Management | OA6/07 (30) / Thursday 3 September 2026

Main block — Chair: Professor Maneesh Singh; Co-chair: Dr Hossein Fatahian; Student volunteer: Mubarak Aderibigbe

Time	Paper ID / Theme	Title	Authors
13:45–14:00	159 · T1	Mobilizing Domain Expertise through Ontology-Based Neurosymbolic AI: An Action Design Research Study in Industrial Maintenance	Nick Tugarin, Isgar Glauninger and Christian van Husen
14:00–14:15	190 · T1	Reinforcement Learning-Enhanced Stochastic Petri Net Framework for Opportunistic Maintenance of Offshore Wind Turbine Blades	Zijia Chen
14:15–14:30	70 · T1	A Predictive Maintenance Framework for Multi-Mode Damper-Failure Detection in Railway Vehicle Dynamics	Youssef Ahmed, Hamza Aagela, Faheem Khan, Muhammad Saad Iqbal and Gareth Tucker
14:30–14:45	9 · T1	Improving Turbocharger Reliability in Diesel Freight Locomotive Engines Using CBM	Mohamed Ali Mohamed Alaswed and Jyoti Sinha
14:45–15:00	37 · T1	Evaluating the Impact of Data Resolution on Machine Learning-Based Predictive Maintenance on heavy duty automated door system: Local vs Cloud Storage Approaches	Yaseer Zaman Chowdhury, Naeem. S. Mian, Qasim Zeeshan Ahmed, Muhammad Umair Siddique, Bernard Houghton and Saptarshi Halder
15:00–15:15	39 · T1	Improvement of FMECA Framework: A Case Study	Anindya Bhattacharya, Kassandra Papadopoulou, Amir Rahbarimanesh and Jyoti Sinha
15:15–15:30	127 · T1	B.B.S. Makhanya; J.H.C. Pretorius	Venkata Sai Prashanth Sudula, Gopinath Chattopadhyay, Rakesh Mishra and Jhareswar Maiti
15:30–16:00	—	Tea/Coffee Break	

T2 Diagnostics & Monitoring | OA6/10 (36) / Thursday 3 September 2026

Main block — Chair: Dr Shirsendu Sikdar; Co-chairs: Dr Deba Datta Mandal and Dr Lukesh Parida; Student volunteer: Farbod Dadashbaki

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Dr Amit Kaushik – Invited Speech	
14:00–14:15	2 · T2	Hydrodynamic Performance and Reliability of Multi-Capsule Pipeline Transport Systems	Elnaz Sohani, Hossein Fatahian and Rakesh Mishra
14:15–14:30	134 · T2	Domestic Fall Detection Using Floor-Mounted Vibration Sensors and Spectrogram-Based Deep Learning	Torbjørn Vatnelid, Magnus Santos Nordeide, Halldor Broddi Thorsteinsson, Maneesh Singh and Anne-Lena Kampen
14:30–14:45	6 · T2	Computational Analysis of Multiphase Flow in Complex Piping Systems for Performance and Reliability Evaluation	Hakeem Busari, Hossein Fatahian and Rakesh Mishra
14:45–15:00	7 · T2	Ultrasonic Guided Wave based Damage Detection in a Composite Pressure Vessel	Muhammad Asif Javed, Shirsendu Sikdar, Deba Datta Mandal and Rakesh Mishra
15:00–15:15	8 · T2	Ultrasonic Guided Wave-Based Structural Health Monitoring of Stainless Steel Pipes	Mohammad Hamza, Shirsendu Sikdar, Deba Datta Mandal, Rakesh Mishra, Ahmed Hussain Ali Abdelrahman, Mosbeh R Kaloop and Mohamed M. Awad
15:15–15:30	10 · T2	Intelligent Health Assessment of Globe Valves using Ultrasonic Guided Waves and Machine Learning	George Phythian, Shirsendu Sikdar, Deba Datta Mandal and Rakesh Mishra
15:30–16:00	—	Tea/Coffee Break	

T3 Energy & Sustainability | OA7/02 (30) / Thursday 3 September 2026

Main block — Chair: Professor Wenxian Yang; Co-chair: Dr Sulaiman Fadlallah; Student volunteer: Aminu Isiyaku

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Dr Taimoor Asim – Invited Speech	
14:00–14:15	112 · T3	Comfort-Aware Predictive Heating Management for Smart Homes Using Edge AI and Multi-Zone Presence Detection	Aisha Al Debri, Fuad Alhabill, Hamza Aagela and Ahmad Znin
14:15–14:30	49 · T3	Benchmarking RL and MPC for robust greenhouse climate control	Samson Sogbaike, Amir Badiie, Chris Bingham and Aliyu Aliyu
14:30–14:45	1 · T3	Effect of anti-stripping agents on adhesion between aggregates and bitumen	Mehvesh Mushtaq, Marco Corradi and Rakesh Mishra
14:45–15:00	31 · T3	Selecting spare parts suitable for additive manufacturing: a case study	Astrid Mex, Alexander Manzke and Dirk Stegelmeyer
15:00–15:15	55 · T3	Advancing sustainability in Electropolishing: The role of eco-friendly electrolytes	Deepak Meerakaviyad, Zahir Jamil, Baba Musa Abbagoni, Sarita Sasidharan Nair and Rakesh Mishra
15:15–15:30	187 · T3	Architecting Real-Time Environmental Accounting in Digital Commerce: A System Topology for Transaction-Linked Carbon Analytics and Micro-Donation Orchestration	Kaushik Vaidya
15:30–16:00	—	Tea/Coffee Break	

T5 Advanced Applications | OA7/26 (30) / Thursday 3 September 2026

Main block — Chair: Dr Mohammad Jafari; Co-chair: Dr Gina Javanbakht; Student volunteer: Mohmmad Zunnurain

Time	Paper ID / Theme	Title	Authors
13:45–14:00	100 · T5	Edge-Ready YOLO-Based Multi-Posture Fall Detection for Smart Homes with Confidence Calibration Error Analysis and Real-Time Validation	Ahmad Znin, Hamza Aagela and Aisha Al Debri
14:00–14:15	94 · T5	Towards Smart Railway Maintenance: Real-Time Robotic Fault Detection in Pantographs	Soran Parsa, Hamidreza Fahham, Gareth Tucker and Mohamed Eban
14:15–14:30	42 · T5	UWB RADIO SLAM SMART ROBOTIC LOCALIZATION	Mahmoud Omar
14:30–14:45	158 · T5	Data-Driven System Identification and Embedded State Estimation for a Tracked Mobile Robot	Masoud Fahim, Hamza Hobbani and Karsten Schmidt
14:45–15:00	43 · T5	Development of Blind / Partially Sighted Assisted Living Aid: Smart canes with integrated Depth detection	Ruby Chauncy Nandhakumar, Naeem.S. Mian and Rakesh Mishra
15:00–15:15	169 · T5	Design of an Intelligent Resource Demand Forecasting Framework for Tourism Destinations Using Real-Time Sensor Data	Jagannath Muduli, Souvik Das and Sinjana Choudhuri
15:30–16:00	—	Tea/Coffee Break	

Mixed-Theme Session | OA7/29 (58) Hybrid / Thursday 3 September 2026

Main block — Chair: Dr Naeem Shaukat Mian (Online); Co-chair: Dr Yomna ElSaboni; Student volunteer: Elnaz Sohani

Time	Paper ID / Theme	Title	Authors
13:30–14:00	—	Mr Ashish Rakheja – Invited Lecture	
14:00–14:15	102 · T3 / Online	Comparative Analysis of Analog and IEC 61850-Based Digital Substation Protection Using Typhoon HIL	Rakibul Islam, Asma Aziz and Shantanu Kumar
14:15–14:30	165 · T3 / Online	Mix Design of M30 Grade Fly Ash and Ground Granulated Blast Furnace Slag-Based Geopolymer Concrete	Priyanka Sharma, Neha Thakur and Joy Pal
14:30–14:45	204 · T3 / Online	Beyond Chemical Inhibition: A Thermodynamic Reassessment of Pressure–Temperature Optimisation for Water Vapour Removal in the Aje Field Three-Phase Separator	Ali Afkireen, Gina Javanbakht, Lilies Kathumbi and Hamza Aagela
14:45–15:00	206 · T1 / Online	Lifecycle Costing and Maintainability-Informed Replacement Decision-Making for Mining Haul Trucks: A Western Australian Case Study	Daniel Botchway, Venkata Sai Prashanth Sudula and Gopinath Chattopadhyay
15:00–15:15	211 · T5 / Online	Dual-Nozzle Electrospun PVA/PLA Nanofibrous Mats Functionalised with Polygonum bistorta Extract for Wound-Healing Applications	Reihaneh Fatahian, Elisa Roldan Ciudad, Hossein Fatahian, Rakesh Mishra, Esmaeel Fatahian and Rasool Erfani
15:15–15:30	143 · T1 / Online	LLM-Based Structuring and Reliability Analysis of SDR Logs for Aircraft Maintenance	Thejeshwarr Chandrakanthan and Hrishikesh Gaikwad
15:30–16:00	—	Tea/Coffee Break	

Keynote and invited speakers' profiles

ICMIAM 2026 keynote and invited contributors

Professor (Emeritus) Andrew Ball

University of Huddersfield, UK

Contribution: Keynote

Internationally recognised for machinery condition monitoring, diagnostics and predictive maintenance, with extensive academic and industrial leadership experience.

Professor Parikshit Goswami

University of Huddersfield, UK

Contribution: Keynote

Director of Research, Innovation and Knowledge Exchange and Director of the Technical Textiles Research Centre, with multidisciplinary research across functional materials, textiles and sustainable technologies.

Professor Uday Kumar

Luleå University of Technology, Sweden

Contribution: Keynote

Professor of Operation and Maintenance Engineering and Senior Advisor (R&D) for the Luleå Railway Research Center (JVTC), with extensive research and industrial consultancy experience in maintenance and asset management.

Professor Gopinath (Gopi) Chattopadhyay

Federation University, Australia

Contribution: Keynote / Distinguished Speaker

Keynote and distinguished speaker representing Federation University, Australia.

Professor Raghuvir Pai

Manipal Institute of Technology, India

Contribution: Keynote / Distinguished Speaker

Professor Pai will join ICMIAM 2026 online as a keynote and distinguished speaker from Manipal Institute of Technology, India.

Professor Prashant Kumar

University of Surrey, UK

Contribution: Keynote

Founding Director of the Global Centre for Clean Air Research, with research spanning air quality, environmental engineering, exposure, public health and urban sustainability.

Dr Anne Gibbs

Chief Executive Officer, Asset Management Council, Oakleigh, Melbourne, Victoria, Australia

Contribution: Keynote

Chief Executive Officer of the Asset Management Council in Melbourne, Australia, and a keynote contributor to ICMIAM 2026.

Professor Jyoti K. Sinha

University of Manchester, UK

Contribution: Keynote / Distinguished Speaker

Head of the Dynamics Laboratory and a specialist in vibration, structural dynamics, condition monitoring, reliability and maintenance engineering.

Professor Patricia Tzortzopoulos

Nottingham Trent University, UK

Contribution: Keynote

Professor of Architecture and leader of BE:SMART, with research in design management, lean construction, BIM, retrofit, healthcare design and sustainable construction.

Professor Marco Corradi

University of Huddersfield, UK

Contribution: Invited Speech

Invited speaker representing the University of Huddersfield, UK.

Professor John Allport

University of Huddersfield, UK

Contribution: Invited Speech

Invited speaker representing the University of Huddersfield, UK.

Professor Pavan Kumar Kankar

IIT Indore, India

Contribution: Keynote / Distinguished Speaker

Professor Kankar will join ICMIAM 2026 online as a keynote and distinguished speaker.

Mr Matthew Charlton

Technical Director, KOSO Kent Introl Ltd, Brighouse, England, UK

Contribution: Keynote

Technical Director at KOSO Kent Introl Ltd in Brighouse, UK, and a keynote contributor to ICMIAM 2026.

Professor Konstantina Lambrinou

University of Huddersfield, UK

Contribution: Keynote

Keynote contributor representing the University of Huddersfield, UK.

Professor Wenxian Yang

University of Huddersfield, UK

Contribution: Invited Speech

Professor of Renewable Energy Engineering with expertise in renewable energy systems, intelligent condition monitoring, structural health monitoring, fault diagnosis and asset management.

Professor Jan Harm Christiaan Pretorius

University of Johannesburg, South Africa

Contribution: Keynote / Distinguished Speaker

Keynote and distinguished speaker representing the University of Johannesburg, South Africa.

Professor Mourad Bentahar

Le Mans University, France

Contribution: Keynote / Distinguished Speaker

Keynote and distinguished speaker representing Le Mans University, France.

Mr François-Baptiste Cartiaux

Head of Research, OSMOS Group, Paris, France

Contribution: Invited Industrial Talk

Head of Research at OSMOS Group, Paris, France, and an invited industrial contributor to ICMIAM 2026.

Professor Ajay Kumar Pandey

Graphic Era School of Management (GESoM), Graphic Era University, Dehradun, India

Contribution: Keynote

Keynote contributor from Graphic Era School of Management, Graphic Era University, Dehradun, India.

Mr Ashish Rakheja

AEON Integrated Building Design Consultants LLP

Contribution: Invited Lecture

Online invited contributor representing AEON Integrated Building Design Consultants LLP.

Professor Maneesh Singh

MIMER Services AS, Stavanger, Norway; Monitoring, Inspection, Maintenance Engineering Services

Contribution: Keynote

Contributor from MIMER Services AS, Stavanger, Norway, associated with monitoring, inspection and maintenance engineering services.

Mr Alistair Carvell

National Gas

Contribution: Keynote

Keynote contributor representing National Gas.

Professor Prabhakar V. Varde

ERAMC, Mumbai, India

Contribution: Keynote

Former senior scientist at BARC with expertise in nuclear operations, safety, reliability, risk engineering and AI/ML applications for complex engineering systems.

Ms Fiona Conor

Trust Electric Heating, Leeds, UK

Contribution: Invited Industrial Lecture

Chief Executive Officer of Trust Electric Heating, with a focus on smart, sustainable heating technologies, innovation and the transition to low-carbon buildings.

Professor Leigh Fleming

University of Huddersfield, UK

Contribution: Professorial Lecture

Dean of the School of Computing and Engineering, with research interests including metrology, healthcare technologies, surface characterisation and predictive health maintenance systems.

Workshops and technology demonstration sessions

Practical, case-based sessions for delegates and industry participants

ICMIAM 2026 also includes practical workshops and an interactive technology demonstration designed to connect current research with real-world engineering and asset-management challenges. The sessions emphasise case-based learning, practical methods, discussion and direct engagement with researchers and industry participants.

1- AI Platform Demonstration

Scheduled: Thursday 3 September 2026, 10:00–12:30, 3M Buckley Innovation Centre, Firth Street, Huddersfield, HD1 3BD**Led by:** Dr Shamaila Iram, Senior Lecturer in Data Science and Applied AI, University of Huddersfield

This interactive technology-demonstration session explores how artificial intelligence can support informed decision-making in complex systems, including infrastructure, energy, housing and the built environment. Combining a live AI demonstrator with collaborative discussion, the session will enable participants to explore how AI-driven decision-support tools can be developed and tailored to address real-world industry challenges.

**Key focus**

- Practical insight into AI-driven decision-support systems and analytics.
- Real-world use cases across infrastructure, sustainability, energy and the built environment.
- Live technology demonstration and interactive co-creation with participants.
- Opportunities to identify future collaborations, pilot projects and funding activities.

2- Data-Driven Optimisation and Smart Asset Management in Wind Energy Systems

Scheduled: Wednesday 2 September 2026, 11:00–12:00, OA4/01**Presenter:** Dr Hossein Fatahian, Research Fellow, School of Computing and Engineering, University of Huddersfield

This interactive workshop demonstrates practical, data-driven approaches for improving wind-turbine performance and supporting intelligent asset management. It connects predictive analytics, surrogate modelling, optimisation and case-based analysis to the goals of higher energy output, improved cost efficiency and more effective lifecycle management of wind-energy assets.

**Key focus**

- Machine-learning approaches for wind-turbine performance prediction.

- Surrogate and mathematical models for rapid aerodynamic analysis.
- Optimisation algorithms for identifying improved turbine configurations.
- Cost-efficiency, O&M optimisation and case studies of ML-enhanced performance improvement.

Delegate information

Conference venue

University of Huddersfield
Queensgate
Huddersfield, West Yorkshire
HD1 3DH
United Kingdom

ICMIAM 2026 will take place at the University of Huddersfield, Queensgate, Huddersfield, West Yorkshire, HD1 3DH, United Kingdom. Conference activities will be held across the Arium, OA4/01, OA4/02, OA5.5, OA6/07 (30), OA6/10 (36), OA7/02 (30), OA7/26 (30), OA7/27 (40), OA7/29 (58) Hybrid and OA7/31 (60) Hybrid, with designated online presentation blocks identified in the detailed programme. Delegates are advised to follow conference signage and on-site guidance for final room locations and any programme updates.

Presentation guidance

- Technical paper presentations: 10-minute presentation + 5-minute Q&A.
- Keynote and invited presentations: 20-minute presentation + 10-minute Q&A, where indicated in the programme.
- Presenters are requested to arrive at their assigned room before the scheduled session and introduce themselves to the session chair or co-chair.
- Online presenters should join the designated online session in good time to complete audio and video checks and should follow the joining instructions provided by the organisers.
- Any changes to presentation times, room allocations or session arrangements will be communicated by the organising committee. Delegates are encouraged to check conference notices and on-site information throughout the event.

Social and networking programme

ICMIAM 2026 includes a programme of social and networking activities designed to give delegates opportunities to meet fellow participants, continue discussions beyond the technical sessions, establish new professional connections and explore future research and industry collaborations.

Pre-conference welcome reception

Monday 31 August 2026 | 17:00–21:00

Sky Indian Restaurant, 70 John William Street, Huddersfield, HD1 1EH

Delegates are warmly invited to attend the pre-conference welcome reception on the evening before the formal opening of ICMIAM 2026. The reception provides an informal opportunity to meet fellow delegates, invited speakers and members of the organising committee ahead of the conference.

Conference networking

Tuesday 1 September 2026 | 17:00–18:00

An informal networking session will follow the first day of technical sessions, providing an opportunity to continue discussions and establish new academic and industrial connections.

Wednesday 2 September 2026 | 17:00–18:00

A further networking session will take place at the conclusion of the Day 2 technical programme, ahead of the Conference Gala Dinner later that evening.

Conference Gala Dinner

Wednesday 2 September 2026 | 19:00–23:00

Accu Stadium, Stadium Way, Huddersfield, HD1 6PG

The ICMIAM 2026 Gala Dinner will bring together delegates, keynote and invited speakers, industry representatives and members of the organising committee for an evening of networking and informal discussion in a relaxed setting.

Closing programme

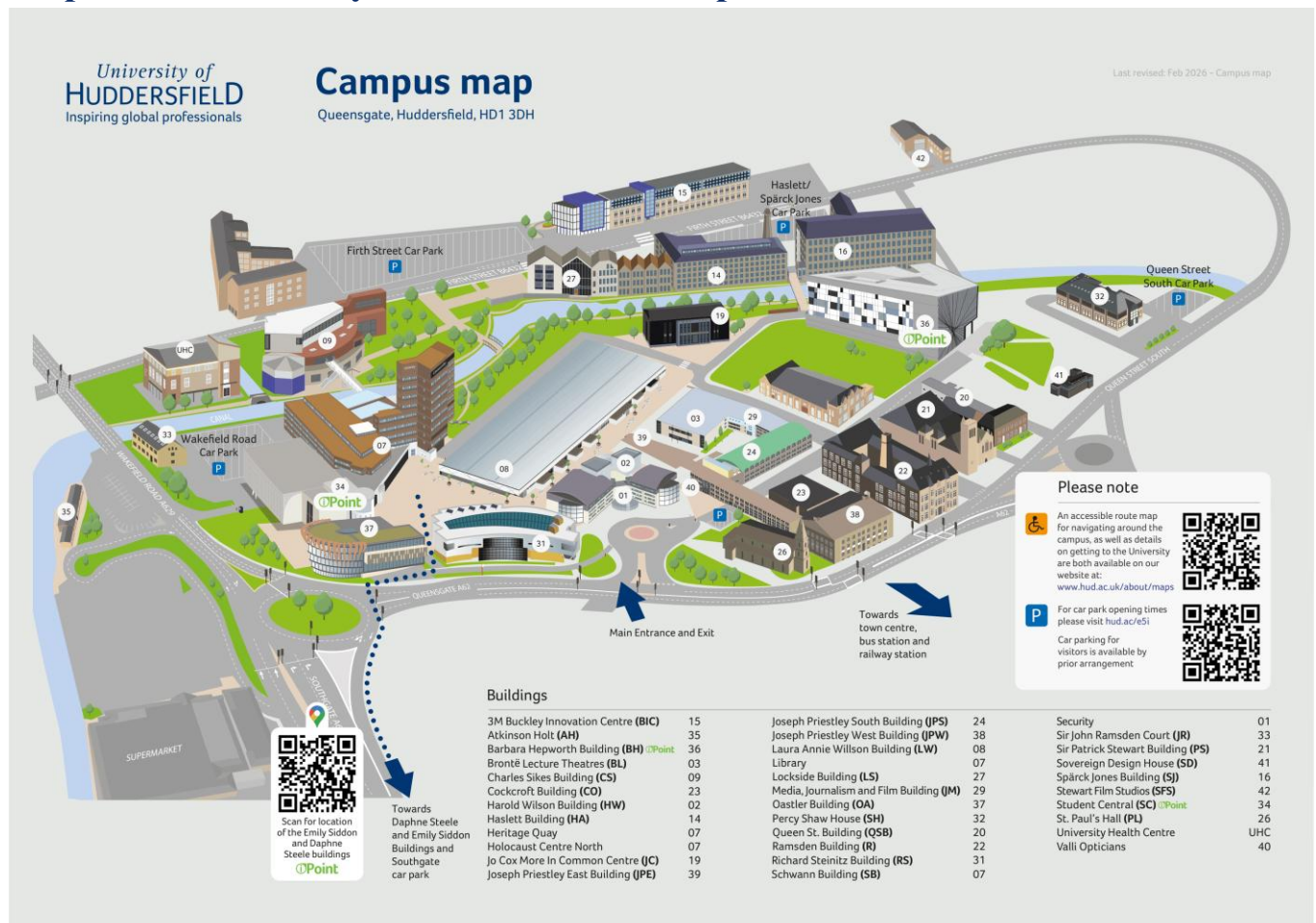
Thursday 3 September 2026

The final conference programme and closing activities will take place during the late afternoon, concluding three days of technical presentations, invited contributions, workshops, networking and knowledge exchange. The concluding session will include a Professorial Lecture by the Dean of The School, Professor Leigh Fleming.

Conference updates

For the latest conference notices, programme updates, venue information and other announcements, please visit www.icmiam.com.

Map of the University of Huddersfield campus



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