The 24th International Asset Facility and Maintenance Management Conference

The Tentative Program

January 17-19, 2027 | Ritz Carlton Jeddah

Empowering the Integration of Digital Transformation and Artificial Intelligence Towards Smart Asset and Facility Management

Day 1: January 17, 2027

07:00-09:00	Registration & Networking		
09:00-10:00	Three Parallel Workshops		
	Workshop 1 The Digital Road Map for Asset Management (DRAM) **Prof. Adolfo Crespo Marquez**, Full Professor, University of Seville, Spain	**Workshop 2** Facility Management Contracts in the Kingdom of Saudi Arabia **Eng. Mazin Shapo**, General Manager, Marafiq Training, Saudi Arabia	**Workshop 3** Artificial Intelligence and Digital Transformation for Smart Asset and Facility Management: Predicting Failures in Buildings, Roads, and Bridges **Prof. Mufid Samarai**, Engineering and Education Senior Advisor, Sahara Consultancy, UAE
10:00-10:30	Break		
10:30-11:30	Three Parallel Workshops		
	Workshop 4 From Digital Twins to Decision Twins: The Future of Asset Management **Dr. Ahmed Khezam**, Director, Cortex Reliability, UK	**Workshop 5** Facility Intelligent Management 5.0 applied for Water System **Dr. Eduardo Calixto**, CEO & Founder, Eduardo Calixto Consulting, Germany	**Workshop 6** Risks Of Overreliance on Technologies **Eng. Simone Bernasconi**, Founder and CEO, Avalle, Switzerland
11:30-12:00	Break		
12:00-13:00	**Opening ceremony**		
13:00-14:00	Lunch		
14:00-15:00	International Experience in Asset, Facilities and Maintenance Management		

15:00 – 16:05	Session 1: Strategic Asset Governance, Lifecycle Management & Value Creation ❖ 1st Speaker Engineering the Next Generation of Intelligent Asset Management: An AI-Driven Governance and Leadership Framework for Saudi Arabia's Mega Infrastructure (2027–2034) **Eng. Jana Mouawad**, AI Engineer, Effat University, Saudi Arabia ❖ 2nd Speaker Lifecycle-Embedded Operational Readiness for Airport Expansion: A Systems and Asset Assurance Framework **Eng. Kingkof Opoku-Ohemeng**, CEO, KIS PLUS LTD, UK ❖ 3rd Speaker **From Reactive Operations to Asset Governance: A Proposed Framework for Governing Operational Evidence in Risk-Based Municipal Asset Management** **Eng. Eissa Adam,** Director of Emergency & Crisis Management Sector, Kharetat Al-Enmaa for Consulting Engineers, Saudi Arabia ❖ 4th Speaker **From Asset Management to Value Management: An ISO 55001-Based Strategic Framework for Governance and Decision-Making** **Eng. Hamid Yagoub**, CEO, HAYAC CONSULTANCY, Saudi Arabia ❖ 5th Speaker The Excellence of Asset Management **Eng. Mohanna Almohanna,** Asset Reliability Manager, National Water Company, Saudi Arabia
16:05 – 16:30	Prayer
16:30-17:35	Session 2: AI-Enabled Asset Investment Governance & Strategic Decision-Making ❖ 1st Speaker Smart Strategic Governance of Pricing and Tendering: An Integrated Model for Institutional Leadership in Contracting and Asset & Facility Management **Omar Ibrahim**, Commercial Manager, Labenat Al Bena'a Contracting, Saudi Arabia ❖ 2nd Speaker Governed AI Agents for Technical Safety Studies: A Practical Architecture for Smart Asset and Facility Management **Dr. Ahmed Khezam**, Director, Cortex Reliability, UK ❖ 3rd Speaker From Operational Challenges to Asset Value: An Innovation-Driven Framework for Advancing Asset and Facility Management **Eng. Ahmed Alzahrani**, CIO Ministry of defense, Saudi Arabia ❖ 4th Speaker **Asset Intelligence Continuum** **Abdeslam Koubaa**, Digital Transformation Expert, P2Q, Oman ❖ 5th Speaker **AI-Enabled Uncertainty-Aware Lifecycle Capital Allocation for Saudi Mega-Project Asset Portfolios: Integrating Risk, Whole-Life Cost and Commercial Value** **Zeeniya Nafrin,** Assistant Lecturer, Horizon Campus, Malabe, Sri Lanka
17:35	Closing of the first day

Day 2: January 18, 2027

<table>
<tr><td>07:00-08:00</td><td colspan="2">Registration & Networking</td></tr>
<tr><td>08:00-09:00</td><td colspan="2">Four Parallel Workshops</td></tr>
<tr><td colspan="2">Workshop 7
Governing the Transformation of Government Facilities Management to Enhance Spending Efficiency and Sustainability in Light of Saudi Vision 2030
Eng. Ahmed Alzahrani, CIO, Ministry of Defense, Saudi Arabia</td><td>Workshop 8
Zero-Maintenance Engineering: A Guide to Smart, Self-Sustaining Buildings
Prof. Hossam Eldin Elborombaly, Former Head of Architecture Department, Ain Shams University, Egypt</td></tr>
<tr><td colspan="2">Workshop 9
Roadmap to Smart Facility Management: From Data Readiness to Measuring Operational Value
Eng. Mahmoud Almousli, Facilities Management Consultant, Andersen, Saudi Arabia</td><td>Workshop 10
Engineering-Aware OT Cybersecurity for IEC 61850 Digital Substations: From Detection to Operational Cyber Defence
Amro Mohamed, OT Cybersecurity Lead, Omicron Energy, Bahrain</td></tr>
<tr><td>09:00-09:30</td><td colspan="2">Break</td></tr>
<tr><td>09:30-10:35</td><td colspan="2">Session 3: Digital Transformation, AI & Operational Efficiency

❖ 1st Speaker
From Connected Buildings to Intelligent Operations: A Practical AI and Digital Transformation Framework for Energy and Operational Efficiency in Smart Buildings and Cities
Eng. Mohamed Saadeh, CEO, Darwish Interserve Facility Management, Qatar

❖ 2nd Speaker
When Buildings Speak: Why the Future of Facility Management Starts with People Before Algorithms
Eng. Mahmoud Almousli, Facility Management Consultant, Andersen, Saudi Arabia

❖ 3rd Speaker
Autonomous Building Intelligence Framework (ABIF): A Technology-Independent Cognitive Reference Architecture for Knowledge-Driven Autonomous Facility Management
Eng. Mohammad Faiz Chikh Awad, General Manager, Bushra Novel Answers 4CIT, Saudi Arabia

❖ 4th Speaker
Leveraging Digital Transformation and Artificial Intelligence in Building and Facility Management for Sustainable Energy and Operational Efficiency in Smart Cities
Prof. Hossam Eldin Elborombaly, Former Head of Architecture Department, Ain Shams University, Egypt

❖ 5th Speaker
AI Future in Digital Cities and Facilities
Eng. Faisal Alharbi, Consultant, Consulting engineering company, Saudi Arabia</td></tr>
</table>

10:35-11:40	**Session 4: Future-Ready Workforce: Education, Professional Development & Change Management** ❖ 1st Speaker **From Training to Operational Impact: A Competency, Risk, and KPI-Based Framework to Enhance Workforce Readiness for Smart Asset and Facility Management** **Eng. Ehsan Abdulrazak**, Board Member, Saudi Quality Council, Saudi Arabia ❖ 2nd Speaker **EduNova: A Modular AI-Based Platform for Adaptive Learning and Intelligent Educational Content Generation** **Prof. Hanaa Marie,** Dean of the Faculty of Artificial Intelligence, Delta University for science and Technology, Egypt ❖ 3rd Speaker **Managing Resistance to Digital Transformation in Organizations in Light of John Kotter's Change Management Model** **Prof. Mansour Benzahi**, Professor, University of Ouargla, Algeria ❖ 4th Speaker **Redesigning Asset and Facility Management Curricula in the Era of Digital Transformation and Artificial Intelligence in Alignment with Saudi Vision 2030** **Prof. Mohamed Abdelaziz,** Professor of urban Planning and modelling, Al-Azhar University**,** Egypt ❖ 5th Speaker **Advancing Facilities and Asset Management Engineering (FAME): An Integrative Framework for Education, Workplace Competence, Chartership, and Digital Transformation** **Prof. Zaher Kyle,** Chairman, OMAINTEC Academy UK, UK
11:40-11:50	Break
11:50-12:30	**Session 5: Intelligent Road Asset Management: Digital Maintenance & Lifecycle Optimization** ❖ 1st Speaker Artificial Intelligence in Road Asset Management: Applications, Opportunities, and Implementation Framework Dr. Fawaz Alharbi, Associate Professor, Qassim University, Saudi Arabia ❖ 2nd Speaker Optimizing Lifecycle Costs: The Economics of Digital Rehabilitation in Asset and Maintenance Management Eng. Agamy Agamy, Project Manager, Kharetat Al-Enmaa for Consulting Engineers, Egypt ❖ 3rd Speaker Drone-Enabled Intelligent Road Maintenance Eng. Ibrahim Al Abbassy, Executive Director of Facility Management Division, Al Modon Al Arabia Company, Saudi Arabia
12:30-13:30	lunch

	Session Parallel to Workshop	
13:30-14:35	Session 6: Digital Grid Asset Intelligence, Condition Monitoring & Cybersecurity ❖ 1st Speaker Automated Condition Assessment of 69 kV Distribution Overhead Lines Using Drones, Computer Vision, and Artificial Intelligence **Eng. Ahmed Taher,** AI & Digital Transformation Executive, Saudi Energy, Saudi Arabia ❖ 2nd Speaker Non-Invasive Digitalization of In-Service Power Transformers: A Modular Edge-To-Cloud Architecture for Thermal Monitoring, Scada Integration and Health Analytics **Akshat Kulkarni,** Co-Founder, OrxaGrid Pvt ltd, UK ❖ 3rd Speaker A Practical Digital Method for Risk-Based Maintenance Prioritization of Protection and Control Systems Using Standardized Field-Test Records **Eng. Ali Husain,** Commercial Leader – Protection Middle East, Doble-Megger Middle East, Bahrain 4th Speaker Multi-Horizon Machine-Learning Forecasting of Ground-Magnetic Disturbance Classes Relevant to GIC Hazard Assessment **Besma Guesmi,** Lead Data Scientist, Ubotica Technologies, Ireland ❖ 5th Speaker Retrofit Digitization of MV/LV Substations: From Grid Visibility to Actionable Operational Data **Robin Mueller,** International Sales Manager, BeEnergy SG GmbH, Germany	**Workshop 11** **Recent Advancement in Bridges Assessment and Management** **Eng. Hazim Abdulwahid,** Vice President, Saudi Society of Civil Engineering, Saudi Arabia

14:35-15:40	Session 7: Intelligent Industrial Asset Management: Reliability & Maintenance Strategy ❖ 1st Speaker System Architecture, Core Contents and Innovative Features of the Equipment Management System Standard **Prof. Baowen Li,** Chairman, Huamou Consulting Technology (shenzhen) Co., Ltd, China ❖ 2nd Speaker From Intelligent Maintenance to Inventive Asset Strategy: A TRIZ-Based Inventive Reasoning Layer Complementing AI-Enabled Digital Twins **Eng. Marco Tatti**, Founder, TRIZConsulting.it, Italy ❖ 3rd Speaker Advancing Predictive Maintenance for Sustainable Operations **Abdenour Jbili**, CEO, OCP Maintenance Solutions SA (OCP-MS), Morocco ❖ 4th Speaker Governing the Transition to Intelligent Maintenance a Maturity Based Implementation Framework for Asset Intensive Organizations **Prof. Adolfo Crespo Marquez,** Full Professor, University of Seville, Spain ❖ 5th Speaker A Layered Framework for AI Empowerment in Industrial Equipment Management: From Digital Ontology to Organizational Intelligence **Prof. Baoqiang Xu,** Associate Professor, Guangzhou University, China
15:40-16:00	Prayer
16:00-17:05	Session 8: Facility Governance, Data Management & Sustainability ❖ 1st Speaker An Integrated AHP–MAUT Decision Support System for School Maintenance Prioritization and Budget Allocation **Eng. Amer Alasaibia,** Project Engineer, SRACO, Saudi Arabia ❖ 2nd Speaker Framework for Managing Saudi Royal Reserves' Assets and Facilities to Become Smart and Sustainable **Eng. Saleh Alswayan**, CEO, PERPEXITY Consultancy, Saudi Arabia ❖ 3rd Speaker From CAFM Records to an AI-Ready Semantic Twin: A Data-Governance and Circular Decision Architecture for University Facilities **Eng. Mohammed Al-Haj,** Facilities and Assets Specialist, Sulaiman Alrajhi University, Saudi Arabia ❖ 4th Speaker From Smart Buildings to Sovereign Governance: A Digitally-Enabled, ISO 37106-Inspired Governance Operating Model for Smart Buildings in Saudi Giga projects **Eng. Firas Obeido Tamimi,** Founder & CEO, NexUrban Smart Cities Advisory, Riyadh, Saudi Arabia ❖ 5th Speaker Integrating Circular Economy and ESG in University Facility Management: A Framework Aligned with Saudi Vision 2030 **Eng. Asem Alrubayan,** Head of the Services & Environment Department, Sulaiman Alrajhi University, Saudi Arabia

17:05-18:10	Session 9: Intelligent Building Diagnostics, Digital Twins & Predictive Maintenance ❖ 1st Speaker An Integrated Structural Health Monitoring and Digital Twin Framework for Probabilistic Deterioration Forecasting and Risk-Based Maintenance Optimization of Coastal High-Rise Buildings in The Middle East **Dr. Hussein Ismail,** Head of Engineering, INSPECTEX SA, Saudi Arabia ❖ 2nd Speaker Generative AI-Assisted Concrete Strength Assessment for Smart Asset Management **Eng. Rami Alsodi,** Support Services Officer, University of Sharjah- The Office of Scientific and Consultancy Services, UAE ❖ 3rd Speaker Digital Twins AI-Driven Predictive Maintenance of Coastal Built Heritage: Qaitbay Citadel Case Study **Dr. Mo'men El Mezayen,** Professor, AHI, Egypt ❖ 4th Speaker A Smart Predictive Maintenance Model for High-Rise Buildings in Saudi Arabia Using an Integrated BIM-RFID Framework **Dr. Altayeb Qasem,** Faculty Member, Imam Abdulrahman Bin Faisal University (IAU), Saudi Arabia ❖ 5th Speaker AI-Enabled Smart Asset Management for Resilient Buildings: A Digital Transformation Framework for Natural Disaster Preparedness **Eng. Alvaro Azevedo**, LNEC – National Laboratory for Civil Engineering, Portugal
18:10	Closing of the 2nd day

Day 3: January 19, 2027

<table>
<tr><td>07:00-08:00</td><td colspan="2">Registration & Networking</td></tr>
<tr><td>08:00-09:00</td><td colspan="2">Four Parallel Workshops</td></tr>
<tr><td colspan="2">Workshop 12
Owner-Side Phased Governance for AI Initiatives in Asset and Facility Management: STAGE-AI
Dr. Osama Dawoud, Head of Course- Project Management, School of Engineering and Technology, Central Queensland University, Australia</td><td>Workshop 13
Facility Management in the Data Era
Eng. Ryad AlMashhour, IFM Operation Manager, Asteco, UAE</td></tr>
<tr><td colspan="2">Workshop 14
Best Practices for Reliability and Maintenance
Prof. Claudio Rolandi, Consultant, Academia s.a.s., Italy</td><td>Workshop 15
A UHF PDM System for Arc Detection and Signal Location in GIS
Eng. Fraser Cook, Principal Engineer, Qualitrol, United Kingdom</td></tr>
<tr><td>09:00-09:30</td><td colspan="2">Break</td></tr>
<tr><td>09:30-10:35</td><td colspan="2">Session 10: Performance-Based Facility Management: Contracts, Handover & Operations

❖ 1st Speaker
Performance-Based Contracting and Contractor and Supplier Evaluation in Smart Facility Management
Eng. Mohamed Almotayam, Facility Manager, Zahran FM, Saudi Arabia

❖ 2nd Speaker
Using an AI Model to Support Final Handover Decisions and Dynamic Demand Forecasting for Corrective Maintenance in Megaprojects
Eng. Salem Balkhair, Member Facility Management Division, Saudi Council of Engineers, Saudi Arabia

❖ 3rd Speaker
The AI You Didn’t Buy: A Contractual Framework for Governing Embedded AI in Facility Management Contracts
Eng. Mohamed Siddig, Facility Manager, Alrasikhat Realestate Investment Co., Saudi Arabia

❖ 4th Speaker
From Traditional Facility Maintenance Contracts to AI-Enabled Performance-Based Contracts: A Bibliometric Analysis and Transition Framework
Eng. Abdulrahman Alanazi, Head of Engineering Affairs & Maintenance, Prince Sattam bin Abdulaziz University Hospital, Saudi Arabia

❖ 5th Speaker
The Future of Facility Management: AI-Driven Operations and Maintenance Governance for Efficiency and Sustainability
Eng. Amal Al-Jahni, Building Construction Supervision Consultant, Technical Services and Maintenance Cooperative Association, Saudi Arabia</td></tr>
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<tr><td></td><td colspan="2">Session Parallel to Workshop</td></tr>
<tr><td rowspan="2">10:35-11:40</td><td>Session 11: AI-Enabled Microgrids, Hybrid Renewables & Energy Flexibility

❖ 1st Speaker
Hybrid Roadside Wind and Solar Energy Harvesting from Numerical Simulation to Prototype Testing
Prof. Moataz M. Abdel-Aziz, Vice dean of faculty of Engineering for postgraduate and scientific research, Horus University, Egypt

❖ 2nd Speaker
AI-Driven Smart Asset Management for Off-Grid Renewable Microgrids
Rahul Kale, Director, Sunpower Renewables Pty. Ltd., Australia

❖ 3rd Speaker
AI-Based Forecast Calibration for Grid Storage and Maintenance Scheduling: Why Margins and Offsets Are Not Interchangeable
Eng. Abdulhakim Bin Dayil, Director of Renewable Energy Data and Knowledge Management, King Abdullah City for Atomic and Renewable Energy, Saudi Arabia

❖ 4th Speaker
From Conventional to Smart Microgrids: IoT-Based Real-Time Digitalization for Monitoring, Energy Management, and Adaptive Protection
Prof. Hamid Bentarzi, Researcher and lecturer, Boumerdes University, Algeria

❖ 5th Speaker
AI-Based Wind-Power Forecasting for Renewable Energy Integration: Distinguishing the Value of Meteorological Information from Model Complexity
Dr. Abdelaziz Saidi, Senior Transmission Engineering Expert, National Grid SA, Saudi Arabia</td><td>Workshop 16
Smart Maintenance and Its Financial Impact
Dr. Abdulkarim Rezk, General Manager of Maintenance and Facility Services, Almajal Alarabi Group, Saudi Arabia</td></tr>
<tr><td>11:40 – 11:50</td><td colspan="2">Break</td></tr>
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11:50-12:55	Session 12: Smart Maintenance and Cybersecurity ❖ 1st Speaker **Effects of AI and Digitalization for On-Premise Assessments** **Eng. Daniel Pfammatter**, Chairman and senior consultant, Easy Energy Companies & Consulting SA, Switzerland ❖ 2nd Speaker Technology Infrastructure Required to Achieve AI in FM Operations Andreas Hadjioannou, Managing Director, Virtual IT Consultants, UAE ❖ 3rd Speaker An Artificial Intelligence-Driven Computerized Maintenance Management System Integrating Predictive Maintenance, Intelligent Maintenance Planning, and Comprehensive Maintenance Cost Analysis Dr. Tarek Nasab, Assistant Professor, Lebanese International University, Lebanon ❖ 4th Speaker An Integrated Framework for Leveraging Emergency Management Systems and AI in Municipal Asset Risk Assessment and Predictive Maintenance Dr. Mohamed Gamal Shahin, GIS & Remote Sensing Expert- Early Warning and Geospatial Solutions, Kharetat Al-Enmaa for Consulting Engineers, Saudi Arabia ❖ 5th Speaker Securing Autonomous Rail Operations: AI and Cybersecurity Against Insider Threats Dr. Ali Shikai, Cyber Security Manager, AtkinsRéalis, Saudi Arabia
12:55 – 13:10	Break
13:10-14:00	Session 13: Intelligent Water Asset Management: Treatment, Predictive Maintenance & Leak Detection ❖ 1st Speaker Smart and Risk-Informed Management of Nanotechnology-Enabled Wastewater Treatment Prof. Wael Abdelmoez, Founder and CEO, Smart Drop Company, Saudi Arabia ❖ 2nd Speaker From Predictive to Autonomous: The Future of Water Asset Management Eng. Walaa Elsrogy, General Manager for Artificial Intelligent, Holding company for Water and Wastewater, Egypt ❖ 3rd Speaker Smart IoT Acoustic Leak Detection for Facility Underground Piping: A Practical Alternative to Conventional Integrity Inspection Approaches Eng. Muhammad Bilal, RCM Engineer, International Construction and Manufacturing Services (ICMS), Saudi Arabia ❖ 4th Speaker Artificial Intelligence (AI) Based Diagnosis and Analysis for Roto-Dynamic Machinery Fault Recognition and Detection Eng. Amro M. Mahmoud, Senior Researcher, WTIIRA-SWA, Jubail, Saudi Arabia
14:00-15:00	Panel Discussion

15:00-15:30	General Assembly Meeting of OMAINTEC Council
15:30-15:40	Closing session
15:40	lunch, and conference conclusion