Under the patronage of **HRH Prince Khalid Al-Faisal** Advisor to the Custodian of the Two Holy Mosques & Governor of Makkah Region



المؤتمر الدولي الثاني والعشرون لإدارة الأصول والمرافق والصيانة The 22nd International Asset, Facility & Maintenance Management Conference

Digitization.. Excellence.. Sustainability

Under the theme: Sustainable Operational Excellence for Digitalization of Assets, Facility, and Maintenance

CONFERENCE PROGRAM

26-28 January 2025

Ritz-Carlton Hotel in Jeddah, Saudi Arabia

AN INITIATIVE BY

EXECUTED BY

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Day 01 26 January 2025

Registration

07:00 - 09:00

3 PARALLEL WORKSHOPS

09:00 - 10:00

1st Workshop (Room 1) How Digitalization Could Change Control Systems in Metro and Railways Systems

Eng. Simone Bernasconi Founder & CEO, Avalle, Switzerland

2nd Workshop (Room 2) Predicting Failures of Buildings, Roads and Bridges Utilising Artificial Intelligence and Machine Learning

Prof. Mufid Samarai Senior Advisor, Sahara GCC, United Arab Emirates

3rd Workshop (Room 3) Fundamental of LCC Digitization

Dr. Isam Kabbani Owner & CEO, Al Kabbani Engineering Consulting Office, Saudi Arabia



10:00 - 10:30

3 PARALLEL WORKSHOPS

10:30 - 11:30

4th Workshop (Room 1) How to Have a Successful Career Path in the Facility and Asset Management Industry

Eng. Ali Alsuwaidi Vice President, MEFMA, United Arab Emirates

5th Workshop (Room 2) Digital Twin Relays and Test Sets Enables Virtual Relay Testing

Eng. Ali Husain Sales Application Engineer, Protection Segment Leader, Megger Middle East, Bahrain

Eng. Andrea Bonetti Senior Specialist in Power System Protection and IEC 61850 Applications, Megger Sweden, Sweden

Eng. Niclas Wetterstrand Global Industry Director for Utilities, Megger Sweden, Sweden

Eng. Cedric Harispuru

Product Manager, Senior Key Expert, Siemens, Germany

6th Workshop (Room 3) Real-Time IoT (Internet of Things) Monitoring in Medical Equipment

Eng. Jihan Aleid Operation Assistant Manager, Wajdlife Trading Co., Saudi Arabia



11:30 - 11:45

OPENING CEREMONY	HALL A 11:45 – 12:45
Break	12:45 - 13:15
Panel Discussion: International Experiences in Asset, Facility, and Maintenance Management (Experiences from China)	HALL A 13:15 – 14:15
Experiences and Practices in Digitizing Operations and Maintenance Procedures in China (The Guest Country)	
Moderator: Dr. Alan Wilson Director, Carmichael Smith Ltd., United Kingdom	
Prof. Baowen Li Chairman of Huamou Consulting Technology (shenzhen) Co. Ltd, China	
Prof. Baoqiang Xu Associate Professor, School of Mechanical and Electrical Engineering, Guangzhou University, China	
Eng. Yuchang Zhang Independent advisor of R&D program, Beijing Centraltech Co. Ltd., China	
Eng. Colin Ning Head of International Business Development, Yado Monitoring Technology Co. Ltc	I., China
î©î Lunch	14:15 - 15:00

3 PARALLEL WORKSHOPS

15:00 - 16:00

7th Workshop (Room 1) Digital Infrastructure Mapping

Ms. Katherine Pfeil Head of Sales, Inframappa, United Sates

8th Workshop (Room 2) Sustainable Predictive Maintenance Applications for Assets and Facilities

Prof. Hossam Elborombaly X-head Of Architecture Department, Ain Shams University, Egypt

9th Workshop (Room 3) Using Digital Technology in Medical Devices within the Standards of Facility Management and Safety FMS in Healthcare

Dr. Ibrahim Andijani Consultant Biomedical Engineer and Director of facility Safety Department, Prince Sultan Military Medical City, Saudi Arabia

Eng. Fayad Daraghmeh

General Manager, Steady Solutions, Jordan

Day 02 27 January 2025

Registration

2 PARALLEL SESSIONS

Hall A

Keynote Speaker: 09:00 - 09:15

A New Age: Maintenance for Sustainability

Dr. Eng. Franco Santini Former President of Aiman Former Chairman of EU CEN MAINTENANCE 319 Italy

Session 01:

Innovating Asset Management: Embracing Digital Solutions for Enhanced Performance

Chairman:

Eng. Mohammed Abu Afifeh Board Member, Arab Asset, Facility and Maintenance Management Council (OMAINTEC), CEO, Conceliare, Jordan

Asset Digitalization Model and Asset Health Management

Prof. Adolfo Crespo Marquez Professor, Universidad De Sevilla, Spain

Are You Planning for Assets & Facility Management Digitization? Go for Full Solutions Eng. Fayad Daraghmeh General Manager, Steady Solutions, Jordan

Digitization in Facilities and Maintenance Operations: Modern Trends, Benefits, and Implementation Challenges

Eng. Abdul-basit Sheikh Project Manager, City Cool, Saudi Arabia

Fostering Innovation through Leveraging Disruptive Technologies Eng. Yazeed Al-Owaid

Programs Director, Saudi Aramco, Saudi Arabia

Hall B

Session 01: Electrical Track: Operational Challenges, Resilience and Grid Security

Chairman:

Eng. Waleed Alsaadi Board Member, Arab Asset, Facility and Maintenance Management Council (OMAINTEC), CEO, National Grid, Saudi Arabia

Exposing Hidden Flaws in the Power Grid: Lessons learned from IDS Deployments in Over 100 Energy Facilities

Amro Mohamed Regional Cybersecurity Sales Manager, MEA Region, Omicron Electronics Middle East, Bahrain

Fault Management in HVDC Transmission Lines Eng. Ahmad Abdullatif

Project Manager, Advanced Communication and Electronics Systems Co., Saudi Arabia

Partial Discharge Diagnostic of High Voltage Power Cables with Associated Accessories and the Human Experience for Installation

Eng. Mostafa Ahmed Transmission Engineer, Saudi Electricity Company Saudi Arabia

Short Circuit Faults Prediction Using Machine Learning in Large-Scale Power System

Eng. Ahmed Alawami Division Manager, Saudi Electricity Company, Saudi Arabia

07:00 - 9:00

09:00 - 10:15

2 PARALLEL SESSIONS WITH WORKSHOP 10

10:25 - 11:25

Session 02:

Innovative Solutions for Smart Facility Management

Hall A

Chairman:

Eng. Ali Alsuwaidi Board Member, Arab Asset, Facility and Maintenance Management Council (OMAINTEC), Vice President, MEFMA, United Arab Emirates

Buildings and Facilities Management Digital Asset Management

Dr. Abdelkarim Rezk General Manager Operation & Maintenance Sector, AlMajal Alarabi Group Company, Saudi Arabia

Artificial Intelligence and Machine Learning: The Future of Concrete Technology and Maintenance

Eng. Rami Alsodi Senior Researcher, Department of Public Works, United Arab Emirates

Risk Management, Asset Digitization & Operational Excellence in Organization & Companies

Eng. Azhar Alqaissi Consultant Engineer, Visiting Professor at Several Colleges and Institutes in Engineering Fields, Oman

Utilization of Artificial Intelligence in Monitoring Key Performance Indicators for Facility Management Performance Eng. Mohamed Siddig

Facility Manager, Alrasikhat Real-estate Investment Company, Saudi Arabia

Session 02: Electrical Track: Grid Modernization and Sustainability

Hall B

Chairman:

Eng. Essam Alwafi Head of Technical Studies Division, GCC Lab Saudi Arabia

Optimization and Performance Evaluation of a Hybrid Solar Power System for University Campuses: A Case Study with Environmental and Economic Impacts Eng. Mohammed Al-Haj

Facility Engineer, Sulaiman Alrajhi University Saudi Arabia

Frequency Regulation Coordinated Framework: Hybrid Battery Energy Storage System and Supercapacitor Eng. Salem Alshahrani

Lead Electrical Engineer, KEMYA, Saudi Arabia

Solar Panel Optimization Based on Graphene-Silicon-Droplet Integration Dr. Ahmed Kabeel

Lecturer, Electronics and Communication Dept Delta University, Egypt

Superconducting Magnetic Energy Storage (SMES) Energy Applications Eng.Nehal Alyamani

Renewable Energy Engineer, Member of IEEE-WSA, Affiliated Researcher, Effat University Saudi Arabia

10th Workshop (Room 1)

Total Quality Management (TQM) for Asset and Facility Management in the Era of Industry 4.0 and Artificial Intelligence

Prof. Omar Gnieber

Board Member, Arab Asset, Facility and Maintenance Management Council (OMAINTEC), Libya



11:25 - 11:35

2 PARALLEL SESSIONS

11:35 - 12:35

Session 03: The Role of IoT in Smart Maintenance Practices

Hall A

Chairman:

Dr. Ayman Alwaleedi Board Member, Arab Asset, Facility and Maintenance Management Council (OMAINTEC), Executive Director, Rua Almadinah, PIF, Saudi Arabia

The Technological System of the Internet of Things (IoT) and Its Modern Applications in Maintenance Management and Smart Fire Prevention Prof. Mohamed Fathy Aref

Chair of the Smart Cities Code Committee, Housing and Building National Research Center, Egypt

Smart Monitoring and Controlling System for Construction Projects as a Prerequisite to Place Smart Facility Management in Saudi Arabia Eng. Hanan Alghamdi

Design Project Manager, Shaad Company Saudi Arabia

Assessing the Impact of Digital Initiatives on Operational Excellence Using Key Performance Indicators (KPIs) and AI-Based Analytics Eng. Yazeed Alhagbani

Electric Engineer, Prince Sattam Bin Abdulaziz University, Saudi Arabia

Impact of Tailored Robots on Construction Engineering Industry & Facility Management Dr. Mostafa El Hawary

VP-Technology, NAMAA Consult, Saudi Arabia

Session 03: Electrical Track: Smart Solutions & Advance Monitoring

Hall B

Innovation in Energy Fields with the TRIZ Method: Applications in Key Sectors for the Middle East

Eng. Marco Tatti Ttech Srl, Academia sas, Triz Consulting, Italy

Digital Meters Calibration Monitoring Solution (Automation of Preventive Maintenance Work Orders & Escalation) Eng. Abdulrahman Algahtani

Head of Power Plants Works Quality Section, Central Sector, Saudi Electricity Company Saudi Arabia

Standardization of the Signal List and SCL Engineering for IEC 61850 Based Substation Projects: Challenges, Solutions and Future Directions Arulraj Irudayasamy

Regional Application Specialist for Power Utility OMICRON Electronics Middle East, Bahrain

Smart Meters' Cyber Security Risks and How to Overcome Them Hind AlQasem

Senior Cybersecurity Analyst, Saudi Electricity Company, Saudi Arabia

C Lunch

12:35 - 13:15



International Maintenance Association Guideline of Digitalization of Assets, Facilities, and Maintenance Management

HALL A 13:15 – 14:45

Re-Shaping the Future of Maintenance

IMA is presenting its latest research study, "Guideline to Digitalization of Assets, Facilities, and Maintenance Management," conducted by leading global experts providing a strategic framework for organizations to navigate their digital transformation journeys.

Additionally, IMA is conducting a survey to gather insights on how digitalization impacts various sectors, focusing on the challenges faced, technologies implemented, and overall maturity levels in maintenance management.

Break

14:45 - 15:00

2 PARALLEL SESSIONS WITH WORKSHOP 11

Session 04:

Future Trends in Sustainable Transportation Infrastructure

Hall A

Chairman: Eng. Hazim Abdulwahid Vice President, Saudi Society of Civil Engineering Saudi Arabia

Developing A BIM Based Model for Road Construction & Maintenance in Saudi Arabia

Prof. Altayeb Qasem Professor, Imam Abdulrahman Bin Faisal University (IAU), Saudi Arabia

Crisis Management and Business Continuity: How New Technologies and Innovations are affecting the Transportation Sector

Eng. Simone Bernasconi Founder & CEO, Avalle, Switzerland

Prospectives on Utilizing Sustainable Smart Maintenance in Infrastructure Projects

Prof. Moustafa Kassab Professor, University of Waterloo, Canada

Effect of Using Geocell in Paved, Unpaved Roads on Sustainability, Technology for Digitizing Roads, and Infrastructure Eng. Ashraf Sabry

Consultant Economist, LSF, Egypt

Session 05:

Innovative Strategies for Water Systems Management

Hall B

Chairman: Prof. Rifaat Abdel Wahaab Head, Research & Development (R & D), Holding Co. For Water & Wastewater (HCWW), Egypt

Comprehensive Asset Condition Assessment Framework for Various Equipment Types in Desalination Plants Eng. Suhail Kattan

Utilities Plants & Distribution Systems Manager, King Abdullah University of Science and Technology (KAUST), Saudi Arabia

Evaluation of Pipe Alternatives for Maintenance and Replacement in the Great Man-Made River Project-Libya Eng. Ali El Turki

Lecturer, Civil Engineering Department University of Benghazi, Libya

Integration of AI Solutions in Desalination Operation Optimization Eng. Amr Ahmed

Researcher, Swa-wtiira, Saudi Arabia

Data Integration of Plant Equipment's and Spare Parts and Impact of that on the Cost Computing in the Seawater Desalination Sector Eng. Khalid Al-habib Chief Strategy & Development Officer, Water

Transmission Co., Saudi Arabia

Applications of Artificial Intelligence and Early Warning Systems in the Water Sector

Eng. Walaa Elsrogy General Manager of AI and Control Department, Greater Cairo Water Company (GCWC), Egypt

11th Workshop (Room 1) Enhancing Infrastructure Asset Management Through Stakeholder Dynamics and Collaboration

Eng. E. Kingkof Kofi Opoku-Ohemeng

Asset Manager Leader (Senior Manager) Royal Commission of Yanbu, Saudi Arabia



Day 03 28 January 2025

Registration

2 PARALLEL SESSIONS

Hall A

Keynote Speaker:

09:00 - 09:15

Maintenance and Asset Management: Evolution, Big Data Integration, Digital Transformation and Future Challenges in the AECO Sector

Dr. Álvaro Vale e Azevedo Head of Buildings Department, Lnec - National Laboratory for Civil Engineering, Portugal

Session 06:

Strategic Asset Planning and Performance Optimization

Chairman:

Prof. Shabab Alhammadi Professor, Princess Nourah bint Abdulrahman University (PNU), Saudi Arabia

Cost Optimal Asset Replacement Plan Case Study

Eng. Ondrej Stejskal Senior Project Manager, Logio s.r.o., Czech

Generation of Solutions Catalog for Early-Stage Asset Lifecycle Decision Making

Prof. Adolfo Crespo Marque Professor, Universidad De Sevilla, Spain

Sustaining Crude Stabilizer Performance & Optimize Maintenance Frequency by Leveraging Digital Simulation Eng. Majed Aljeshi

Senior Process Engineer, Saudi AramcoSaudi Arabia

Implementing ISO 41001: Transitioning from Operations and Maintenance Contracts to Total Facility Management Performance-Based Contracts in KSA Eng. Shukri Habib Managing Director, Qualiserv, Qatar

Hall B

09:00 - 09:15

09:00 - 10:15

FAM Industry Future Needs in Education and Training

Prof. Zaher Kyle

Keynote Speaker:

President of the British Academy for eLearning, United Kingdom

Session 07: Role of Training and Education in Empowering Asset and Facility Management

Chairman:

Dr. Isam Kabbani Owner & CEO, Al Kabbani Engineering Consulting Office, Saudi Arabia

Towards a Training Program for Developing Leadership Skills for Facility Managers at Sonatrach, Algeria Prof. Mansour Benzahi

Professor, University of Ouargl, Algeria

The Role of Al-Powered Training in Enhancing Compliance with ISO 55001 Asset Management Standards Eng. Hamid Yagoub

Senior Consultant ISO Standard and Project Management, Engineering Science Institute for Training ESI, Saudi Arabia

The Evolution of Continued Education with the Future Role of Artificial Intelligence: A Case Study of the University of Sharjah

Dr. Asmaa Nusairi

Director of Continuous Education Center, Assistant Professor in Management, University of Sharjah, United Arab Emirates

Key Performance Indicators (KPIs) and Digital Maintenance (CMMS) for Facility Management

Prof. Hossam Elborombaly X-head Of Architecture Department Ain Shams University, Egypt



10:15 - 10:25

07:00 - 09:00

WORKSHOP

10:25 - 12:25

12th Workshop (Room 1) Optimizing Asset Performance: The Strategic Integration of Smart Power Transformers in the Saudi Arabia Electricity Network

Eng. Ayyoub Hourani Design & Engineering Manager, Saudi Power Transformer Company (SPTC), Saudi Arabia

Eng. Mahmoud Elsayed Control and Protection Design Lead, Saudi Power Transformer Company (SPTC), Saudi Arabia

2 PARALLEL SESSIONS

Session 08:

Innovative Asset and Facility Solutions for Enhanced Resilience

Hall A

Chairman: Prof. Adolfo Crespo Marquez Professor, Universidad De Sevilla, Spain

An Innovative Resilience Assessing for Critical Infrastructures Using the Lean Methodology Prof. Claudio Rolandi Principal, Academia s.a.s., Italy

Transforming Telecom Infrastructure Operations: A Vendor-Agnostic, Multi-Telecom Integrated OSS/NMS Platform for Enhanced MNO/Towerco Passive Network Operations Eng. Hussameddin Alzaatreh Operations Director, ACES, Saudi Arabia

ESG Metrics and Risk Factors in Asset and Facility Management Adapting to Mandatory Reporting Policies Eng. Mohammad Abu Afifeh CEO, Conceliare, Jordan

The Challenge of Digitalization of the Water Sector Dr. Mohsen Alamir Alkady Chairman, Misr Foundation for Science and Technology Research, Egypt

Session 09:

Cybersecurity and Sustainable Innovation in Smart Maintenance

Hall B

Chairman: Prof. Mufid Samoraei Board Member, Arab Asset, Facility and Maintenance Management Council (OMAINTEC), Senior Advisor, Sahara Group, United Arab Emirates

Zero Trust Architecture Application in Maintenance Operations: A Cybersecurity Perspective Tamer Hellah

Director, Happy Life Limited, United Kingdom

Building a Smart OS for Facilities Management: How can Facility Managers leverage Data Engineering, 5G Network, Machine Learning Algorithms and LLMs to create a Futuristic Management Operating System for Facilities Eng. Ahmed Rezik

Baseband Software Engineer Rohde & Schwarz, TUM, Germany

Revolutionizing Industrial Performance: The Disruptive Power of Sustainable Operability in the Age of AI and Net-Zero Carbon Emission Samira Ben Ali President, Maramm, Morocco

The Impact of Digital Twin Eng. Sulaiman Al Ismaili MSc Engineering Management, Oman

Automating Subsurface Utilities Detection and Visualization using Deep Learning and Augmented Reality Prof. Mohamed Marzouk

Professor, Cairo University, Egypt



11:25 - 11:35

10:25 - 11:25

2 PARALLEL SESSIONS

Session 10:

Advancements in DigitalSolutions for Predictive Maintenance

Hall A

Chairman: Dr. Tomáš Hladík Principal Consultant, Logio s.r.o., Czech

Data Analytics of Machines through Predictive Maintenance Strategies and Their Applications using Programmable Control Systems and the Internet of Things Eng. Waleed Nazhat

Chief Engineer, Baba Gurgur Association of Turkmen Engineers, Iraq

Architectural Digital Twins: Enhancing Building Lifecycle Management through Predictive Maintenance and Restoration Dr. Nader Gharib

Head of Architectural Engineering and Environmental Design, College of Engineering and Technology, AASTMT, Egypt

Digital Twin Emerging Technology: Empowering Predictive Maintenance for Enhanced Equipment Reliability and Operational Efficiency

Eng. Mohammed Al-Haj Facility Engineer, Sulaiman Alrajhi University Saudi Arabia

Ai-Enhanced Predictive Maintenance and Leakage Detection of Underground Steel Pipelines Using Ground Penetrating Radar Dr. Saleh Abu Dabous

Associate Professor, University of Sharjah United Arab Emirates

Digital Infrastructure Mapping Eng. Suleiman Barada Managing Partner, XEEVOLVE, Lebanon

Session 11: Exploring New Horizons in Maintenance and Design

Hall B

Chairman:

Dr. Hamza Ghulman Dean and Academic Consultant, College of Engineering, University of Business and Technology UBT, Saudi Arabia

Saudi Arabia's Industrial Future with 3D Printing and Digital Solutions

Eng. Ehab Bassam Business Development Manager, Lasoman Machines Empowering, Saudi Arabia

Advancing Prosthetics: Personalization with 3D Printing, AI, and the Critical Role of Maintenance

Eng. Esraa Rashad Researcher, Mansoura University, Egypt

Robotics and AI: Shaping the Future of Large-Scale Maintenance and Construction Operations (Painting as a Case Study)

Eng. Hamza Ibrahim Lead Technical Sales, Neura Robotics, Germany

Optimal Automated Designing Process for Annual Planning and Workload Distribution of Work Orders Dr. Tarek Nasab Associate Professor, Lebanese International

Associate Professor, Lebanese International University, Lebanon

Break

12:45 - 13:15

11:35 - 12:45

Panel Discussion:

Local Experiences in Asset, Facility, and Maintenance HALL A Management Enhancing Maturity Levels in Asset 13:15 - 14:15 and Facility Management Moderator: Eng. Khaled Alenzi Facilities and Maintenance Management Expert, Saudi Arabia The Experience of the Ministry of Education in Asset and Facility Management Eng. Rayyan Al-Ghamdi General Administration of Security, Safety, and Facilities, Ministry of Education, Saudi Arabia Tabuk University's Experience in Digital Applications for Asset and Facility Systems According to The EXPRO Methodology Eng. Majed Al-Towiher Director General of Engineering Affairs , Tabuk University, Saudi Arabia The Experience of the General Authority for the Care of The Affairs of the Grand Mosque and The Prophet's Mosque in Enhancing The Reliability and Efficiency of **Electrical Power Supply** Eng. Ahmed Al-Shamrani Assistant General Manager of Operations and Maintenance, Director of Electrical Works Department, the General Authority for the Care of the Affairs of the Grand Mosque and the Prophet's Mosque, Saudi Arabia Transition 14:15 - 14:20

General Assembly Meeting of the Arab Asset, Facility and Maintenance Management Council 14:20 – 15:00

