

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

TENTATIVE PROGRAM

26-28 January 2025

Ritz-Carlton Hotel in Jeddah, Saudi Arabia

AN INITIATIVE BY

OMAINTEC
المجالس العربي لإدارة الأصول والمرافق والصيانة
Arab Asset, Facility and Maintenance Management Council

EXECUTED BY

TSG | EXICON.
شركة مجموعة المختص • The Specialist Group

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STRATEGIC PARTNERS

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الشركة السعودية للكهرباء
Saudi Electricity Company
نعمل بإتقان من أجلكم



SUPPORTED BY

نقل الكهرباء
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الشركة السعودية لشراكات المياه
Saudi Water Partnership Company



COLLABORATORS





Day 01

26 January 2025

Day 01: Sunday 26 January 2025

Registration

07:00 – 09:00

3 PARALLEL WORKSHOPS

09:00 – 10:10

1st Workshop: How Digitalization could Change Control Systems in Metro and Railways Systems

Eng. Simone Bernasconi
Founder, Avalue, Switzerland

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

Prof. Mufid Samarai
Senior Advisor, Sahara Group, UAE

3rd Workshop: Fundamental of LCC Digitization

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



Coffee Break

10:00 – 10:30

Day 01: Sunday 26 January 2025

3 PARALLEL WORKSHOPS

10:30 – 11:30

4th Workshop: How to have a Successful Career Path in the Facility and Asset Management Industry

Eng. Ali Alsuwaidi
Vice President, MEFMA, UAE

5th Workshop: Digital Twin Relays and Test Sets Enables Virtual Relay Testing

Megger Co. & Siemens Co.

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

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



Coffee Break

11:30 – 11:45

Day 01: Sunday 26 January 2025

OPENING CEREMONY

11:45 – 12:45



Coffee Break

12:45 – 13:15

Panel Discussion: International Experiences and Expertise in Maintenance (Experiences from China)

13:15 – 14:15

Experiences and Practices in Digitizing Operations and Maintenance Procedures in China



Lunch

14:15 – 15:00

Day 01: Sunday 26 January 2025

3 PARALLEL WORKSHOPS

15:00 – 16:00

7th Workshop:

Digital Infra-Mapping

Suleiman Barada

Digital Transformation Strategist, Lebanon

8th Workshop

Sustainable Predictive Maintenance Applications for Assets and Facilities

Prof. Hossam Elborombaly

X-head of Architecture Department, Ain Shams University, Egypt

9th Workshop:

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 in Prince Sultan Medical Military City, Saudi Arabia

Eng. Fayad Daraghme

General Manager, Steady Solutions, Jordan

A futuristic cityscape at night, viewed from a high angle. The buildings are illuminated with a blue and purple glow. In the foreground, there are several glowing neon circles in shades of blue and purple, creating a sense of depth and movement. The overall atmosphere is dark and high-tech.

Day 02

27 January 2025

Day 02: Monday 27 January 2025

Registration

07:00 – 09:00

2 PARALLEL SESSIONS

09:00 – 10:00

Session 01:
Innovating Asset Management:
**Embracing Digital Solutions
for Enhanced Performance**

**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**

Yazeed Al-Owaid

Programs Director, Saudi Aramco, Saudi Arabia

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

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

Amro Mohamed

Omicron Electronics Middle East, Bahrain

**Fault management in HVDC transmission
lines**

Ahmad Abdullatif

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**

Mostafa Mokhta

Saudi Electric Company, Saudi Arabia

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

Ahmed Alawami

Saudi Electric Company, Saudi Arabia



Coffee Break

10:00 – 10:15

Day 02: Monday 27 January 2025

2 PARALLEL SESSIONS

10:15 – 11:15

Session 02: Innovative Solutions for Smart Facility Management

Buildings and Facilities Management - Digital Asset Management

Dr. Abdelkarim Rezk

General Manager Operation & Maintenance
Sector, AlMajal Alarabi Group Co., Saudi Arabia

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

Eng. Rami Alsodi

Senior Researcher, Department of Public Works, UAE

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**

Optimization and Performance Evaluation of a Hybrid Solar Power System for University Campuses: A Case Study with Environmental and Economic Impacts

Mohammed Al-Haj

Sulaiman Alrajhi University, Saudi Arabia

Frequency Regulation Coordinated Framework: Hybrid Battery Energy Storage System and Supercapacitor

Salem Alshahrani

Kemya, Saudi Arabia

Solar Panel Optimization Based on Graphene-Silicon-Droplet Integration

Ahmed Kabeel

Delta University, Egypt

Superconducting Magnetic Energy Storage (SMES) Energy Applications

Nehal Alyamani

IEEE, Saudi Arabia



Coffee Break

11:15 – 11:30

Day 02: Monday 27 January 2025

2 PARALLEL SESSIONS

11:30 – 12:30

Session 03: The Role of IoT in Smart Maintenance Practices

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 Alhaqbani

Electric Engineer, Prince Sattam Bin, 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**

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

Marco Tatti

Testing Technologies, Italy

Digitalized Monitoring of Digital Meters Calibration

Abdulrahman Alqahtani

Saudi Electric Company, Saudi Arabia

Standardization of the Signal List and SCL Engineering for 61850-based Substation Projects: Challenges, Solutions and Future Directions

Arulraj Irudayasamy

Omicron Electronics Middle East, Bahrain

Smart Meters' Cyber Security Risks and How to Overcome Them

Hind AlQasem

Saudi Electric Company, Saudi Arabia



Coffee Break

12:30 – 13:00



IMA COINCIDE EVENT

Day 02: Monday 27 January 2025

INTERNATIONAL MAINTENANCE ASSOCIATION GUIDELINE OF DIGITALIZATION OF ASSETS, FACILITIES, AND MAINTENANCE MANAGEMENT

Re-Shaping the Future of Maintenance

13:00 – 14:10

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.



Coffee Break

14:10 – 14:20

Day 02: Monday 27 January 2025

2 PARALLEL SESSIONS

14:20 – 15:20

Session 04: Future Trends in Sustainable Transportation Infrastructure

Developing A BIM Based Model for Road Construction & Maintenance in KSA

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, Avalue, 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

Ashraf Sabry

Consultant – Economist, Lsf, Egypt

Session 05: Innovative Strategies for Water Systems Management

Comprehensive Asset Condition Assessment Framework for Various Equipment Types in Desalination Plants

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

Spectro Marine: Real-Time Water Quality Measurement for Desalination Plants

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. Ahmed Abuouf

Planning & Performance Specialist
Saudi Water Authority, Saudi Arabia

 Lunch

15:20

The background is a dark, blue-toned illustration of a futuristic exhibition or conference hall. In the center, there are several concentric, glowing neon circles in shades of blue and purple. The floor is a grid of light blue and white squares. People in business attire are walking around the space. In the background, there are large digital screens displaying various icons and data. The overall atmosphere is high-tech and modern.

Day 03

28 January 2025

Day 03: Tuesday 28 January 2025

Registration

07:00 – 09:00

2 PARALLEL SESSIONS

09:00 – 10:00

Session 06: Strategic Asset Planning and Performance Optimization

Cost Optimal Asset Replacement Plan Case Study

Eng. Ondrej Stejskal

Supply Chain Lead, Rimac Technology, 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

Sr Process Engineer, Saudi Aramco, Saudi 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

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

Towards a Training Program for Developing Leadership Skills for Facility Managers at Sonatrach, Algeria

Prof. Mansour Benzahi

Professor, University of Ouargla Algeria, Algeria

The Role of AI-Powered Training in Enhancing Compliance with ISO 55001 Asset Management Standards

Eng. Hamid Yagoub

Senior Instructor, Engineering Science Institute,
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, and
Assistant Professor in Management

University of Sharjah, UAE

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

Prof. Hossam Elborombaly

X-head Of Architecture Department

Ain Shams University, Egypt



Coffee Break

10:00 – 10:15

Day 03: Tuesday 28 January 2025

2 PARALLEL SESSIONS

10:15 – 11:15

Session 08: Innovative Asset and Facility Solutions for Enhanced Resilience

**An Innovative Resilience Assessing for
Critical Infrastructures Using the Lean
Methodology**

Eng. 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. Hussam 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

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

**Zero Trust Architecture Application
in Maintenance Operations:
A Cybersecurity Perspective**

Tamer Hellah

Director, Happy Life Limited, UK

**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



Coffee Break

11:15 – 11:30

Day 03: Tuesday 28 January 2025

2 PARALLEL SESSIONS

11:30 – 12:30

Session 10: Advancements in Digital Solutions for Predictive Maintenance

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, UAE

Session 11: Exploring New Horizons in Maintenance and Design

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 University, Lebanon



Coffee Break

12:30 – 13:00

Day 03: Tuesday 28 January 2025

Panel Discussion:

13:00 – 14:00

Local Experiences in Asset, Facility, and Maintenance Management
Enhancing Maturity Levels in Asset and Facility Management

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

Transition

13:00 – 13:05

**GENERAL ASSEMBLY MEETING OF THE ARAB
ASSET, FACILITY AND MAINTENANCE
MANAGEMENT COUNCIL**

13:05 – 13:45

CLOSING SESSION

13:45 - 14:00

 **Lunch**

14:00