



- ▶▶ Under the patronage of **H.E. Dr. Eng. Abdullah Belhaif Al Nuaimi**  
Minister of Infrastructure Development - United Arab Emirates



- ▶▶ 17<sup>th</sup> Edition

—  
**International Operations  
& Maintenance Conference**  
in the Arab Countries

**19, 20, 21 NOV 2019**

Le Meridien Dubai Hotel  
& Conference Centre  
United Arab Emirates

Under the Theme:  
**Enhancing Maintenance  
Through Big Data Management**

▶▶  
**CONFERENCE  
PROGRAM**

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# CONFERENCE PROGRAM

>>>

TUESDAY 19 NOVEMBER 2019

# DAY 01

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# TUESDAY

## 19 NOV 2019

07:00 – 08:00

>>> **Registration**>>> **Seven Short Learning Sessions (Parallel)****Learning Session 01**

08:00 - 09:30

**TPM - a Foundation of Operational Excellence and Partnership working within the Emerging World of Industry 4.0 (Part 01)**

**Peter Willmott**

Associate Partner  
Sapartners, UK

**Learning Session 02**

**Understanding Some Limitations of Vibration Spectra**

**Eng. Simon Mills**

Managing Director  
Spectrumcbm Ltd, UK

**Learning Session 03**

**Sustainable Flexible Pavement in Terms of Micro Crack Healing Concept**

**Prof. Saad Sarsam**

Head of the Department of Civil Engineering  
University of Baghdad , Iraq

**Learning Session 04**

**Future Trends in Maintenance, Training and Qualifications**

**Prof. Andrew Starr**

Cranfield University, UK

**Dr. Muhammad Khan**

Cranfield University, UK

**Learning Session 05**

**Next Generation O&M – Digitized Autonomous, & Agile**

Digital Transformation approach towards achieving Operational Excellence

**Muhammad Ali Malik**

Head of Delivery & Services  
Utility Sector, Huawei, Saudi Arabia

**Learning Session 06**

**Value Engineering: A Decision Making Tool for Facility Management Options - Australian Practice**

**Prof. Emad Shublaq**

University of Western Sydney  
Director, PMRT Consultants, Australia

**Learning Session 07**

**A Stores Application - My Key Steps of Implementation of a Stores System, Starting from a Collection of Asset Components Spread around a Room**

**Dr. Alan Wilson**

Director  
Carmichael Smith Ltd, UK

08:00 – 09:15

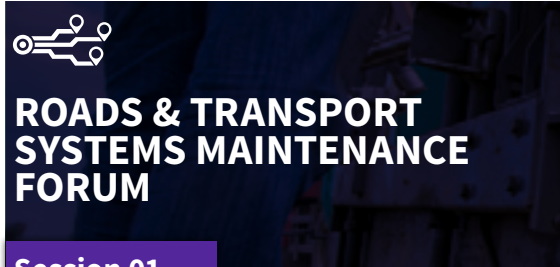
09:15 – 09:30

>>> **Coffee Break**

# TUESDAY

## 19 NOV 2019

### >>> Two Parallel Tracks



**ROADS & TRANSPORT SYSTEMS MAINTENANCE FORUM**

**Session 01**

#### CHAIRMAN

**Eng. Hazim Abdulwahid**  
 President  
 Hazim Ibrahim Engineering Consulting  
 Saudi Arabia

#### SPEAKER 1

**The Reality about Autonomous Drive**  
**Simone Bernasconi**  
 Managing Director  
 Competence Centre Msfi, Switzerland

#### SPEAKER 2

**Enhancing Rigid Pavement Quality with the Aid of Bacteria**  
**Prof. Saad Sarsam**  
 Head of the Department of Civil Engineering  
 University of Baghdad, Iraq

#### SPEAKER 3

**Graph Neural Networks for Traffic Forecasting**  
**Eng. Joao Rico**  
 Researcher  
 Instituto Superior Técnico, Portugal

#### SPEAKER 4

**Use of TELCO big data – City Planning and Management**  
**Dr. Tariq Enaya**  
 Chairman  
 Datauniverse, Saudi Arabia



**ELECTRICAL SYSTEMS MAINTENANCE FORUM**

**Session 01**

#### CHAIRMAN

**Eng. Mohammed Al-Rafaa**  
 Board Member  
 Arab Council of Operations & Maintenance  
 Saudi Arabia

#### SPEAKER 1

**Environmental Economic Dispatch of Thermal Power Plants in Saudi Arabia: A Case Study**  
**Eng. Mohammed Mutlaq**  
 Transmission Power Engineer  
 Saudi Electricity Company, Saudi Arabia

#### SPEAKER 2

**Current and Suggested Photovoltaic Maintenance in Egypt**  
**Eng. Azza Ali**  
 Engineer  
 Egyptian Electric Utility and Consumer Protection Regulatory Agency, Egypt

#### SPEAKER 3

**Introducing Digital O&M capabilities in SEC-NG Fiber Network to enhance Operational**  
**Muhammad Ali Malik**  
 Head of Delivery & Services  
 Utility Sector, Huawei, Saudi Arabia

09:30 – 10:45

10:45 -11:00

### >>> Coffee Break

# TUESDAY

19 NOV 2019

## >>> Two Parallel Tracks



### ROADS & TRANSPORT SYSTEMS MAINTENANCE FORUM

#### Session 02

##### CHAIRMAN

**Prof. Ahmed Al Shamma**

Dean of the College of Engineering  
Sharjah Research Academy, UAE

##### SPEAKER 1

**Modern Technologies in the Intelligent Transport System and the Needs Required to Deal with Big Data and Information**

**Prof. Mohamed Aref**

Chairman of Smart Cities Committee Code  
Housing and Building National Research Center (HBRC), Egypt

##### SPEAKER 2

**Perspectives on Big Data Analytics for Infrastructure's Engineering, Construction, Maintenance, and Management**

**Prof. Moustafa Kassab**

University Professor and Researcher  
Taibah University (Saudi Arabia)  
University of Waterloo (Canada)

##### SPEAKER 3

**Utilization of Mega Weather Data for Preventive Maintenance of Asphalt Pavements: An Overview**

**Dr. Hanqi Liu**

Postdoctoral Research Associate  
Sharjah Research Academy, UAE

##### CO-AUTHORS

**Prof. Mufid Samarai<sup>2</sup>**

**Eng. Rulla Saad<sup>3</sup>**

Sharjah Research  
Academy, UAE

**Waleed Zeiad<sup>4</sup>**

**Ghazi Al-Khateeb<sup>5</sup>**

University of Sharjah  
UAE



### ELECTRICAL SYSTEMS MAINTENANCE FORUM

#### Session 02

##### CHAIRMAN

**Eng. Waleed Alsaadi**

Engineering Vice President  
National Grid, Saudi Arabia

##### SPEAKER 1

**Tower Leg Foundation Corrosion Causes and Solutions**

**Eng. Khalil Alsubaie**

Transmission Engineer  
National Grid, Saudi Arabia

##### SPEAKER 2

**The Effects of Using Big Data Methods on Optimizing Electrical Systems**

**Zaid Mahmoud**

Computer Engineer  
Amman Dynamics, Jordan

##### SPEAKER 3

**The Role of Metrology in Enhancing Maintenance Programs**

**Waleed Al-Faris**

Director of Business Development  
for Testing & Calibration  
GCC Electrical Testing Laboratory

##### SPEAKER 4

**Grid Stabilization Solutions – Grow Existing Grids Under Increasingly Complex Conditions**

**Eng. Shima Fahima**

Chief Business Development Officer  
Easy Energy Companies & Consulting SA  
Switzerland

11:00 – 12:15

12:15 – 13:00

## >>> Prayer

13:00 – 14:00

## >>> Conference Opening Ceremony

14:00 – 14:15

## >>> Coffee Break

14:15 – 15:30

## >>> International Experience in Maintenance from Norway

**Prof. Per Schjølberg**

Head of Department  
Production and Quality Engineering, NTNU, Norway

15:30

## >>> Lunch



# CONFERENCE PROGRAM



WEDNESDAY 20 NOVEMBER 2019

# DAY 02

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# WEDNESDAY

20 NOV 2019

07:00 – 08:00

>>> **Registration**

## >>> Seven Short Learning Sessions (Parallel)

### Learning Session 08

08:00 - 09:30

**TPM - a Foundation of Operational Excellence and Partnership working within the Emerging World of Industry 4.0 (Part 02)**

**Peter Willmott**

Associate Partner, Sapartners, UK

### Learning Session 09

**Life Cycle Costing in Asset Management and Maintenance**

**Eng. Tom Svantesson**

CEO

TSMC, Denmark

### Learning Session 10

**Hospital of the Future**

**Eng. Malek El Hussein**

Regional Director

Middle East- UCLA Health, UAE

### Learning Session 11

**Effective Implementation of Road and Airport Maintenance Management System**

**Eng. Hazim Abdulwahid**

President

Hazim Ibrahim Engineering Consulting, Saudi Arabia

**Dr. Ali Maher**

Professor and Director - Center for Advanced

Infrastructure & Transportation, School of

Engineering, Rutgers University, USA

### Learning Session 12

**Determining Hard Time Task Frequencies using Quantitative Risk Assessment**

**Eng. James Kennedy**

Director

Interlogis Consulting, Australia

### Learning Session 13

**Advances in Evaluation, Testing, Repair and Maintenance Management of Structures: Overview of the New Modified ACI 562M-16 Code for Repair of Structures**

**Prof. Mufid Samarai**

Senior Advisor

Sharjah Research Academy, UAE

### Learning Session 14

**FM Development within Regulatory Framework in GCC Area**

**Alistair Stranack**

Managing Director

Rosmead Business Consulting, UK

08:00 – 09:15

09:15 – 09:30

>>> **Coffee Break**

### Learning Session 15

Parallel to Session 01 of Water Management and Systems Maintenance Forum

**Digital Transformation and Biomedical Engineering**

**Prof. Samir El-Masri**

CEO

Digitalization, UAE

9:30 – 10:45

10:45 – 11:00

>>> **Coffee Break**

### Learning Session 16

Parallel to Session 02 of Water Management and Systems Maintenance Forum

**Medical Equipment Safety According to Accreditation Standards**

**Dr. Ibrahim Andijani**

Certified Hospital Surveyor Consultant Biomedical Engineer

Prince Sultan Military Medical City, Saudi Arabia

11:00 – 12:15



# WEDNESDAY

## 20 NOV 2019

### >>> Two Parallel Tracks



## WATER MANAGEMENT AND SYSTEMS MAINTENANCE FORUM

### Session 01

CHAIRMAN

**Prof. Mufid Samarai**

Senior Advisor  
Sharjah Research Academy, UAE

SPEAKER 1

**Operation and Maintenance of Wastewater Sector in Egypt (Specific Challenges and Current Responses)**

**Prof. Mohamed Nazih Abdallah**

Assistant Professor  
Institute of Sanitary and Environmental Engineering, Housing and Building National Research Center (HBRC), Egypt

SPEAKER 2

**Using Data Analysis for Development of Optimum Operation, Maintenance and Performance Monitoring Procedures for Wastewater Treatment Plants**

**Dr. Walid Salim**

Associate Professor  
Environmental Engineering, Housing and Building National Research Center (HBRC), Egypt

SPEAKER 3

**The Role of Enterprise Big Data Analytics & GIS Cloud in Optimizing O&M of the Water Utilities: Case Study of HCWW, Egypt**

**Prof. Ahmed Moawad**

Vice President  
Holding Company for Water and Wastewater (HCWW), Egypt



## COMMUNICATION SYSTEMS, SMART MAINTENANCE AND CYBER SECURITY FORUM

### Session 01

CHAIRMAN

**Dr. Alan Wilson**

Director  
Carmichael Smith Ltd, UK

SPEAKER 1

**OEM IIoT based Maintenance with Digital Twinning**

**Suleiman Barada**

CEO  
S2E Middle East & Africa, Lebanon

SPEAKER 2

**Smart Hypervision Platform Hubgrade at the Core of Enova's Excellence Guarantee**

**Amin El Najjar**

Operations Director  
Enova, UAE

SPEAKER 3

**Machines Can Talk... Can you Hear Them?**

**Eng. George Efraimidis**

Chairman  
Hellenic Maintenance Society, Greece

SPEAKER 4

**Monetizing Big Data in Maintenance**

**Dr. Tomas Hladik**

Senior Consultant  
Logio, Czech Republic

09:30 – 10:45

10:45 – 11:00

### >>> Coffee Break

# WEDNESDAY

20 NOV 2019

## >>> Two Parallel Tracks



### WATER MANAGEMENT AND SYSTEMS MAINTENANCE FORUM

#### Session 02

CHAIRMAN

#### **Prof. Ahmed Moawad**

Vice President

Holding Company for Water and Wastewater (HCWW), Egypt

SPEAKER 1

**The Future of Big Data Management Opportunities in Predictive Analytics and Maintenance: A Case Study from Water Pumping Stations**

#### **Prof. Emad El-said**

Professor

Fayoum University, Egypt

SPEAKER 2

**Application of Big Data Analytics to Promote the Development of Infrastructure Services**

#### **Dr. Mohsen Al Kady**

Chairman of Board of Trustees

Misr for Research and Technology Foundation  
Egypt

SPEAKER 3

**Pharmaceuticals in Treated Wastewater Effluent and Effect on Public Health**

#### **Dr. Sourjya Bhattacharjee**

Postdoctoral

Sharjah Research Academy, UAE

#### **CO-AUTHORS**

#### **Eng. Rulla Saad<sup>2</sup>**

Sharjah Research Academy, UAE

#### **Prof. Mufid Samarai<sup>3</sup>**

Sharjah Research Academy, UAE

#### **Abdallah Shanableh<sup>4</sup>**

University of Sharjah, UAE



### COMMUNICATION SYSTEMS, SMART MAINTENANCE AND CYBER SECURITY FORUM

#### Learning Session 17

**Maintenance in the digital world  
The real game**

#### **Eng. George Effraimidis**

Chairman

Hellenic Maintenance Society, Greece

11:00 – 12:15

12:15 – 12:45

## >>> Prayer

# WEDNESDAY

## 20 NOV 2019

### >>> Two Parallel Tracks



**BUILDING MAINTENANCE AND FACILITIES MANAGEMENT FORUM**

**Session 01**

**CHAIRMAN**

**Dr. Isam Kabbani**  
 Consultant and Expert in Maintenance and Facilities Management  
 Saudi Arabia

**SPEAKER 1**

**The Concept of Data Inspection and Knowledge Extraction in Big Data**  
**Prof. Muhsin Bin Hassounah**  
 Chairman of Civil Engineering Department  
 Department of Engineering Management  
 Benghazi University, Lybia

**SPEAKER 2**

**Managing Data of Existing Building Facilities using 3D Laser Scanning**  
**Prof. Mohamed Marzouk**  
 Professor of Construction Engineering and Management  
 Cairo University, Egypt

**SPEAKER 3**

**Study the Factors of Operations and Maintenance Efficiency through the Design Stages**  
**Dr. Ghasan Alfalah**  
 Assistant Professor  
 King Saud University, Saudi Arabia



**BIOMEDICAL AND CLINICAL ENGINEERING FORUM**

**Session 01**

**CHAIRMAN**

**Prof. Ahmed Al Barrak**  
 Chairman  
 Health Informatics Research Chair  
 King Saud University, Saudi Arabia

**SPEAKER 1**

**Big Data Analytics for Intelligent Healthcare Management in Saudi Arabian MOH Facilities**  
**Dr. Yasir Shariff**  
 Associate Professor  
 Taibah University, Saudi Arabia

**SPEAKER 2**

**Digital Transformation and Biomedical Engineering**  
**Prof. Samir Almasri**  
 CEO  
 Digitalization, UAE

**SPEAKER 3**

**Digital Innovation in Healthcare could Save Billions**  
**Eng. Malek El Hussein**  
 Regional Director  
 Middle East-UCLA Health, UAE

12:45 – 14:00

14:00 – 14:15

### >>> Coffee Break

# WEDNESDAY

20 NOV 2019

## >>> Two Parallel Tracks



### BUILDING MAINTENANCE AND FACILITIES MANAGEMENT FORUM

#### Session 02

##### CHAIRMAN

**Eng. Mohammed Abu Afifa**

Secretary General  
Jordan Engineers Association, Jordan

##### SPEAKER 1

**Performance Data Analysis for Intelligent Maintenance in Warm Countries**

**Dr. Ayman Bishara**

Researcher  
Head of the Department of Building Physics  
Dr. Robert-Murjahn-Institute, Germany

##### SPEAKER 2

**Evaluation of the Operations and Maintenance of Electrical and Mechanical Equipment in Al-Masjid Al-Haram**

**Eng. Aseem Nashwan**

Senior Mechanical Engineer Consultant  
Zuhair Fayez & Associates Consulting Engineers  
Saudi Arabia

##### SPEAKER 3

**Repair Materials for Major Faulty Concrete Structures**

**Eng. Rulla Saad**

Senior Researcher  
Sharjah Research Academy, UAE

##### CO-AUTHORS

**Prof. Mufid Samarai<sup>2</sup>**

**Omar Amer<sup>3</sup>**

Sharjah  
Research Academy  
UAE

**Ali Tahmaz<sup>4</sup>**

University of Sharjah  
UAE

**Yousif Marei<sup>5</sup>**

Arab Center for Engineering  
Studies (ACES), UAE



### BIOMEDICAL AND CLINICAL ENGINEERING FORUM

#### Session 02

##### CHAIRMAN

**Dr. Ibrahim Andijani**

Certified Hospital Surveyor  
Consultant Biomedical Engineer  
Prince Sultan Military Medical City, Saudi Arabia

##### SPEAKER 1

**Elite in-Hospital Biomedical Maintenance Services**

**Eng. Amer Salha**

Director of Capital Medical  
Equipment & Planning  
American Hospital Dubai, UAE

##### SPEAKER 2

**Automation and Digitization in Health Technologies**

**Eng. Sundaram Ramnath**

Managing Director  
Healthtech 360 LLP, India

##### SPEAKER 3

**Protocols for Optimizing Medical Equipment Operation Utilization**

**Dr. Amjad Abdel-Razeq**

Medical Technology Advisor  
Maps, Jordan

##### SPEAKER 4

**Nervous System Augmentation**

**Prof. Hasan Alnashnash**

Director of the Biomedical Engineering  
Graduate Program- American University of  
Sharjah, UAE

14:15 – 15:30

15:30 – 16:15

## >>> Lunch

16:15 – 17:15

## >>> Leaders in Biomedical and Business Starter



# CONFERENCE PROGRAM



THURSDAY 21 NOVEMBER 2019

# DAY 03

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# THURSDAY

21 NOV 2019

07:00 – 08:00

>>> **Registration**



## MAINTENANCE SYSTEMS & MANAGEMENT FORUM

### Session 01

CHAIRMAN

**Prof. Hossam Elborombaly**

Professor & Head of Architecture Department  
College of Engineering, Ain Shams University, Egypt

SPEAKER 1

**Big Data Application in Maintenance Services**

**Eng. Ondrej Stejskal**

Senior Consultant  
Logio s.r.o., Czech Republic

SPEAKER 2

**Maintenance Management, AI & Big Data: A Review (2005-2019)**

**Prof. Khairy Kobbacy**

Independent Researcher  
Manchester, UK

SPEAKER 3

**Big Data in Lean Six-Sigma: Case Study of Preventive Maintenance Package Optimization**

**Prof. Abdulaziz Bubshait**

Professor  
KFUPM, Saudi Arabia

SPEAKER 4

**Maintenance Strategy by Applying Big Data Concepts**

**Eng. Mohamed Gamea**

Assistant Director of Works  
Suez Canal Authority, Egypt

SPEAKER 5

**Asset Health Index Method: A Case Study for Process Pumps Fleet**

**Prof. Adolfo Crespo Márquez**

Professor  
University of Seville, Spain

08:00 – 09:30

09:30 – 10:00

>>> **Coffee Break**

# THURSDAY

21 NOV 2019



## MAINTENANCE SYSTEMS & MANAGEMENT FORUM

### Session 02

CHAIRMAN

**H.E. Dr. Essam Sharaf**

Board Member  
Arab Council of Operations & Maintenance, Egypt

SPEAKER 1

**Comparison of Traditional and Big Data Maintenance Environment in Predictive Manufacturing Systems**

**Dr. Siti Nabilah Misti**

Operation Manager  
Vytech Limited, UK

SPEAKER 2

**Defending Your Preventive Maintenance Budget: An Approach to Information System Specification**

**Eng. James Kennedy**

Director  
Interlogis Consulting, Australia

SPEAKER 3

**Latest Developments in Condition Monitoring Standards**

**Eng. Simon Mills**

Managing Director  
Spectrumcbm Ltd, UK

SPEAKER 4

**A Framework to Support Condition Based Maintenance Management**

**Antonio Sola**

Vice President  
Ingeman, Spain

SPEAKER 5

**Vibration Condition Monitoring and Data Management in a Modern Waste Recovery Park**

**Jaroslav Gil**

Noise and Vibration Consultant  
Rotating Equipment Verification Equipment Ltd., UK

10:00 – 11:30

11:30 – 11:45

>>> **Coffee Break**

# THURSDAY

21 NOV 2019



## MAINTENANCE SYSTEMS & MANAGEMENT FORUM

### Session 03

CHAIRMAN

**Dr. Hamza Ghulman**

Associate Professor  
College of Engineering and Islamic Architecture - Umm Al-Qura University, Saudi Arabia

SPEAKER 1

**What's the Weather Like on My Assets Tomorrow?**

**Eng. Claudio Cappo**

President, MT3 Srl  
Manchester, UK

SPEAKER 2

**Qualifications for Asset Managers for Future**

**Dr. Muhammad Khan**

Course Director  
MSc Maintenance Engineering and Asset Management, Cranfield University, UK

SPEAKER 3

**Asset Management Digital Transformation**

**Mr. Andreas Hadjioannou**

Director  
Virtual IT Ltd, UAE

SPEAKER 4

**Maintenance Strategy Planning Using the Manufactures Reliability Data**

**Eng. Tom Svantesson**

CEO  
TSMC, Denmark

SPEAKER 5

**Performance Assessment of the Portuguese AECO Sector Based on Big Data Management**

**Dr. Alvaro Vale E Azevedo**

Head of Unit,  
LNEC- National Laboratory for Civil Engineering, Lisbon, Portugal

11:45 – 13:15

13:15 – 13:30

>>> Prayer



# THURSDAY

## 21 NOV 2019

### REGIONAL EXPERIENCE IN MAINTENANCE

Experience of the UAE Ministry of Infrastructure Development on Asset Management

**Dr. Daniel Llor**

Projects Manager

Ministry of Infrastructure Development, UAE

**Eng. Habiba Aflatoon**

Civil Engineer

Ministry of Infrastructure Development, UAE

**Eng. Soughah ALSamahi**

Civil Engineer

Ministry of Infrastructure Development, UAE

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**The National Program of Projects Management, Operation and Maintenance Organization (Mashroat) Overview – Saudi Arabia**

**Eng. Khalid Alammar**

Director of Standards And Procedures Dept.

Mashroat, Saudi Arabia

13:30 – 14:30

14:30 – 14:45

**>>> Annual Assembly Meeting of the OMAINTEC Members**

14:45 – 15:00

**>>> Closing Session**

15:00

**>>> Lunch**

# NOTES

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& Maintenance

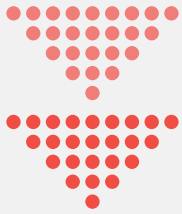
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