



ASSOCIATION OF
CONSULTING ENGINEERS
SINGAPORE

ACES-Winston Engrg. Training: Common Pump Failures and New Age Pumping Solutions

WINSTON
ENGINEERING

Registration Link
<https://forms.gle/n6PZGUMLmbZhrYeh6>

Date: 14 September 2021 (Tuesday)
Time: 12.00 pm to 2.00 pm
Mode of Delivery: Online via Zoom Meeting
(Training will only convene with minimum 25 participants)
CPD: 2 PDU approved
Fee: Complimentary for ACES Members

TRAINING OBJECTIVES

One of the biggest problems that the maintenance teams encounter in the recent years, is the ever-growing skills gap. We are here to provide additional help to the industries by sharing our expertise to diagnose and repair the major faults that could eventually lead to catastrophic failures.

TRAINING CONTENTS

1. TWO WAYS TO CAUSE A PUMP TO FAIL



Cavitation and Air Entrainment/Air Lock are two of the most common problems that could occur in a pump system.

- Cavitation could damage the key components and result in the downtime, and repair costs.
- Air Entrainment could impact the product output.

Hence, it is important for asset manager or engineering personnel to understand these failures modes, causes and some valuable tips to minimize them, so that we can use them on the pump systems right away.

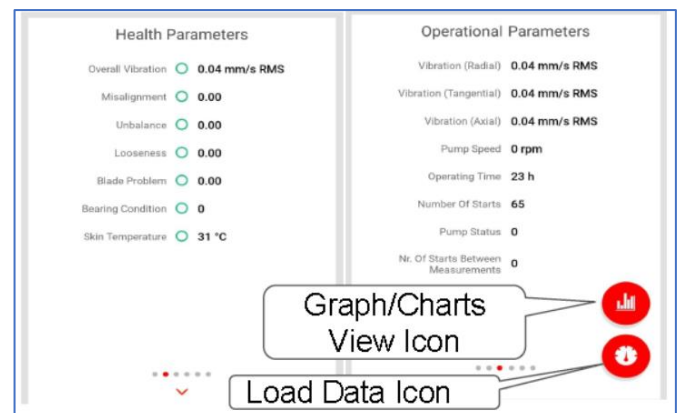
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2. PREDICTIVE MAINTENANCE WITH IOT SENSORS

Condition Monitoring and Predictive Maintenance via Internet of Things (IoT) is the Industrial 4.0 way to track the pump's operation. Features include :

- Vibration Measurement (due to misalignment, bearing failure, cavitation)
- Temperature
- Threshold setting
- Asset management
- Detail spectrum generation

We will explain more about these features in our session to help you embark onto the Predictive Maintenance technology using the IOT device.



SPEAKER

Mr. Karthik (WEC's Trainer)_WSQ certified (curriculum design and development)




Trainer's Portfolio

At Winston Engineering Corp Pte Ltd., Singapore as Project/Application Engineer:

- Attained MSc Rotating Machinery (Universidad Sanjorge, Spain) in year 2020
- OSBL/ISBL Process Pump Package to OrgKhim Malaysia, from Jun'18 to present
- Kaombo CIP Package to ENI Ghana; Siemens Singapore from Jun'15 to Dec '17
- Pre Lube Process Package to TEN Tullow Ghana FPSO ; Global Process Systems Pte Ltd from July '14 to Jun'15
- Crude Transfer Package to Jubilee FOPS; Modec Ghana Ltd from Jun'14 to Jul'15
- Rotary Gear Pumps Package to Afton Chemicals Project Lion ; Foster Wheeler Singapore Pte Ltd from May'14 to Jun'15
- Waste Water Treatment Package to MSD Tuas West Singapore; Lendlease Singapore Pte Ltd. from Jul'13 to Mar'14
- Chemical Injection Package to Bukit Tua FPSO; Global Process Systems Pte Ltd from Jun'13 to Mar'014
- Fire Water Package to SINOPEC; SINOPEC China from Sep'12 to Aug'13
- Process and Utility Package to OSX3 FPSO; Modec Offshore Singapore Pte Ltd. from Jul'11 to Aug'12
- Hydrocarbon Process Package to OSX1 FOPS; BW Offshore Singapore Pte Ltd. from Apr'11 to Aug'11

At ITT Saudi Co., KSA as Contracts Engineer:  **ITT**

- Hydrocarbon Production Package to Saudi Aramco Bulk Plants-Al-Suwaidi Trading Company from Mar'10 to Mar'11
- Waste Water Treatment Package for ITHRA-King Abdul Aziz Centre of Knowledge and Culture from Jun'10 to Nov'10
- HCL Incinerator Quench Circulation Package to SABIC SMO-SABIC SMO from Feb'10 to Aug'10

At Flowserve Pump Division, India as Application Engineer: 

- Hydrocarbon Production Package to CPOC-JDA Block17-SMOE Singapore Pte Ltd. from May'07 to Dec'07
- Various Process Package to FPSO Cidade Niteroi, Brazil-Modec Singapore Pte Ltd. from Dec'06 to Jul'07
- Various Production Package to FCCU, HGU & AMU Unit of ESSAR Oil Refinery-ESSAR Oil Refinery from Jul'07 to May'08
- Boiler Feed Package to Koniambo Nickel SAS Project from Dec'08 to Dec'09

Trainer has provided multiple trainings on introduction to pumps, Practical Approach to Pumps for Banyan Caverns, SWA, Singapore Plumbing society, Semcorp Marine.