3rd International Conference on

Materials Science and Engineering

October 07-08, 2019 | Frankfurt, Germany

Reza Javaherdashti

Paracorrosion Consultants, Australia

A Masterclass training workshop on microbiological corrosion of engineering materials: Causes, remedies, facts & semi-facts

Microbiologically influenced corrosion (MIC) is an electrrochemical corrosion that can be initiated, enhanced or even decelarted by the action of certain micro-organisms, mainly bacteria and their "cousins" Archaea. Perhaps the most widely known of corrosion-related bacteria (CRB) to industry is SRB (sulphate reducing bacteria) and there are still professionals who think SRB are the most important CRB particularly in pipeline industry. New findings suggest otherwise : in fact there are some fifteen types of both CRB and CRA (corrosion related Archaea) that can induce corrosion to almost all engineering materaisl, metals and non-metals alike.

In addition to being rrather unknown for some industries, there are several myths surrounding recognitioon and treatment of MIC too, myths like stainless steels are immune to MIC or cathodic protection can cure MIC forr good .

In this two-hour training masterclass, Dr. Reza Javaherdashti will discuss the state-of-the-art of MIC and what is available to identify and cure it along with some pros and cons of each method.

This mastercalss could be very useful for:

• Technical Inspection Professionals

• Corrosion Management Professionals

• Operation and repair Professionals

• Integrity Management Professionals

• Water treatment professionals

• Structural and process Professionals

• HSE /safety Professionals

• Coating and paint /Cathodic protection/Chemical treatment /Materials Selection Professionals

• Testing and laboratory Professionals

Speaker Biography

Reza Javaherdashti holds a double degree in Materials Science and Metallurgical Engineering. In addition to being an internationally renowned expert on microbial corrosion, He has several internationally referenced books and papers on the subject. He has over 20 years of field and academic experience as both a consultant and a researcher. He is the first scientist who has applied Fuzzy logic in prediction the risk of microbial corrosion successfully. While as an engineer corrosion is his passion., as a manager he has grown interest in studies related to the cost of corrosion. He was the first who applied Future Studies to present a Futuristic model for managers that had corrosion as its integral element.

e: javaherdashti@yahoo.com