The Conference & Expo organization is progressing at full speed; 150 abstracts had been accepted, divided in 5 parallel sessions for 2 days.

The preliminary program is available on the conference website:

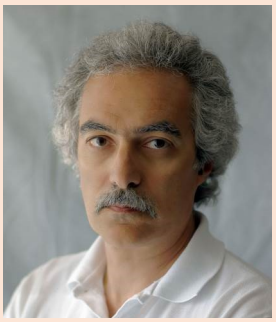
www.naceitalia.it/genoa2018

This session will be chaired by Ugo Marinelli (FM Engineering), Marco Cattalini (CorE), Marco Ormellese and Andrea Brenna (Politecnico di Milano).

17 papers will be presented in this session, covering the following main topics.

Cathodic Protection application

Cathodic protection is a world-wide well know electrochemical technique used to control corrosion by lowering the potential of the structure by a cathodic direct current.



Ugo Marinelli

It can be applied to buried or immersed structures, to reinforced concrete and to internal surface in the presence of an electrolyte. Two systems are available: galvanic anodes and impressed current systems. The former is typically used in very conductive environment, as seawater; the latter is used where high resistivity environments, as in concrete and in soil.

In this session, real CP field applications will be presented and discussed, ranging from carbon steel subsea pipelines to tank bottoms, from stainless steel lift pumps to carbon steel rebars in concrete. Both impressed current systems and galvanic anode system will be discussed. Use of Zn-based hydrogel galvanic anode and mixed-metal oxide activated Ti will be presented.

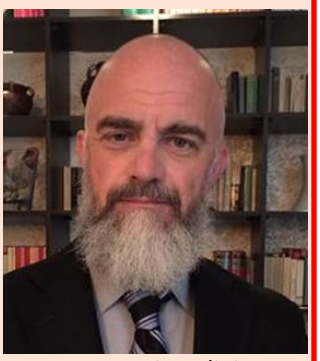
Cathodic Protection Monitoring

Marco Ormellese

In order to verify is the CP plants are properly working, periodic monitoring is mandatory.

The recent introduction of the standard ISO 15589-1 clearly defines the conditions to achieve a proper level of cathodic protection, highlighting the importance to know the real level of polarization of the pipe, by measuring the so-called IR-free potential.

In the CP session the recent developments will be presented and discussed, focussing of the most used methods: potential probes, instant OFF readings, remote monitoring.



Marco Cattalini

AC/DC Interference

Electrical interference is the most important cause of severe corrosion of buried pipelines, above all if close to public transportation systems, as trains, undergrounds, trams, powered both by AC or DC.

Cathodic protection is typically used to face both DC and AC stray current corrosion on buried pipelines. It is mandatory by law, in the case of transportation of dangerous fluids, such as flammable and methane. In this session, potential monitoring performed by remote monitoring or by 24 h data logging will be discussed to verify the level of protection of interfered buried structures.

Andrea Brenna

In the presence of AC interference, mitigation system are recommended: criteria, performance, costs and failure risks will be discussed.