LRCUM

Long Range Ultrasonic Condition Monitoring of Engineering Assets / LRUCM

Project code: COLL-CT-2005-516405
ES programme: Framework Programe 6 (FP6)
Duration of the project: 2005-2008

The objective of the project

To develop new and novel long-range ultrasonic condition-monitoring (LRUCM) technological tools - sensors and systems - for finding defects and corrosion in a wide range of engineering assets (pipelines, rails, offshore platforms, cable stayed/suspension bridges and sheet piled coastal defences, etc.) which are degrading, thus posing risk of failure.

Problem

Current inspection technologies can only inspect a small area underneath the transducer.

Solution

Proposed system using guided waves will be able to inspect hundreds of meters of engineering assets from one location even when these are buried underground or under insulation and coatings.

Ultrasound institute

Has proposed the optimal spatial arrangement of transducer arrays for long range ultrasonic non-destructive testing.

Project partners

Deutsche Gesellschaft fur Zerstorungsfreie Prufung E.V. (DGZfP) (Germany), European Federation of Non Destructive Testing (EFNDT) (Belgium), Asociacion Espanola de Ensayos no Destructivos (AEND) (Spain), Associacao Portuguesa de Manutencao Industrial (AMPI) (Portugal), Associazione Italiana Prove Non Distructive (AIPnD) (Italy), Balgarski Saiuz po Zavariavane (BSpZ) (Bulgaria), Ukranian Society for Nondestructive Testing and Technical Diagnostics (USNDT) (Ukraine), Coaxial Power Systems (UK), I&T Nardoni Institute (Italy), Sonatest Ltd (UK), Isotest Engineering S.r.i (Italy) RARI Constructcoes Metalicas Engenharia, Projectos e Solucoes Industriais, Lda (RARI) (Portugal), A Casa Inteligente, Lda (ACIL) (Portugal), Atlantis NDE Ingenieria de Inspeccion no Destructiva SL (Spain), NDT Consultants Ltd (UK), Advanced Technology Group, spol.s.r.o. (ATG) (Czech Republic), TWI (UK), Instituto de Soldadura e Qualidade (ISQ) (Portugal), Kingston Computer Consultancy Ltd (UK), Zenon S.A. Robotics and informatics (Greece), Kaunas University of Technology (Lithuania), Nexus Engineering (Bulgaria).

Project homepage: http://www.lrucm.eu.com/

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