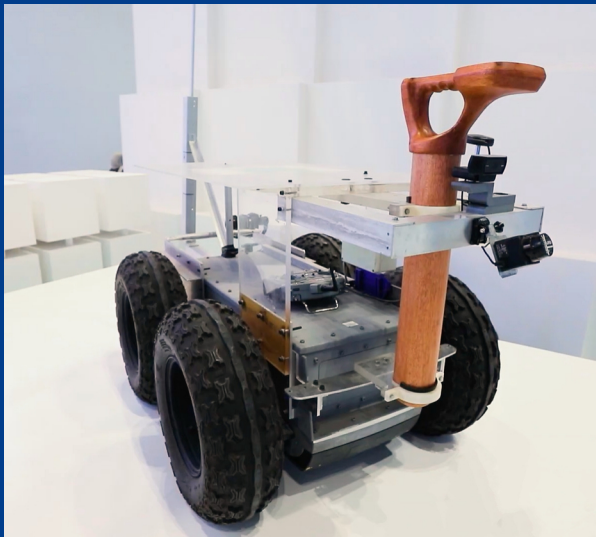


NON-CONTACT CONDITION MONITORING ROBOT



Smart Sensing Systems



ABOUT OUR TECHNOLOGY

A new alternate robotic inspection mechanism based on robotic agents (AGV & UAV), non-contact sensors and AI platforms are introduced to complement and overcome the shortcomings of the conventional inspection of the buried pipelines by ILI (In Line Inspection) tool.

The capability of predicting the yet to happen future anomalies in the pipeline is not possible with the conventional inspection methods. So, a novel predictive maintenance mechanism based on Artificial Intelligence (AI) and Machine Learning (ML) for inspection and management of the buried metallic pipes are also integrated.

FEATURES

- All terrain ground vehicle that Identifies buried pipeline and its depth autonomously
- Aerial monitoring and inspection using UAV
- Autonomous pipeline navigation and geo-tagging
- Autonomous and real time identification of pipeline defects
- Autonomous tagging of defect location using high accuracy GPS device
- Autonomous and real time identification of pipeline coating defects
- AI driven powerful engine for accurate forecasting
- Future predictions about abnormal events

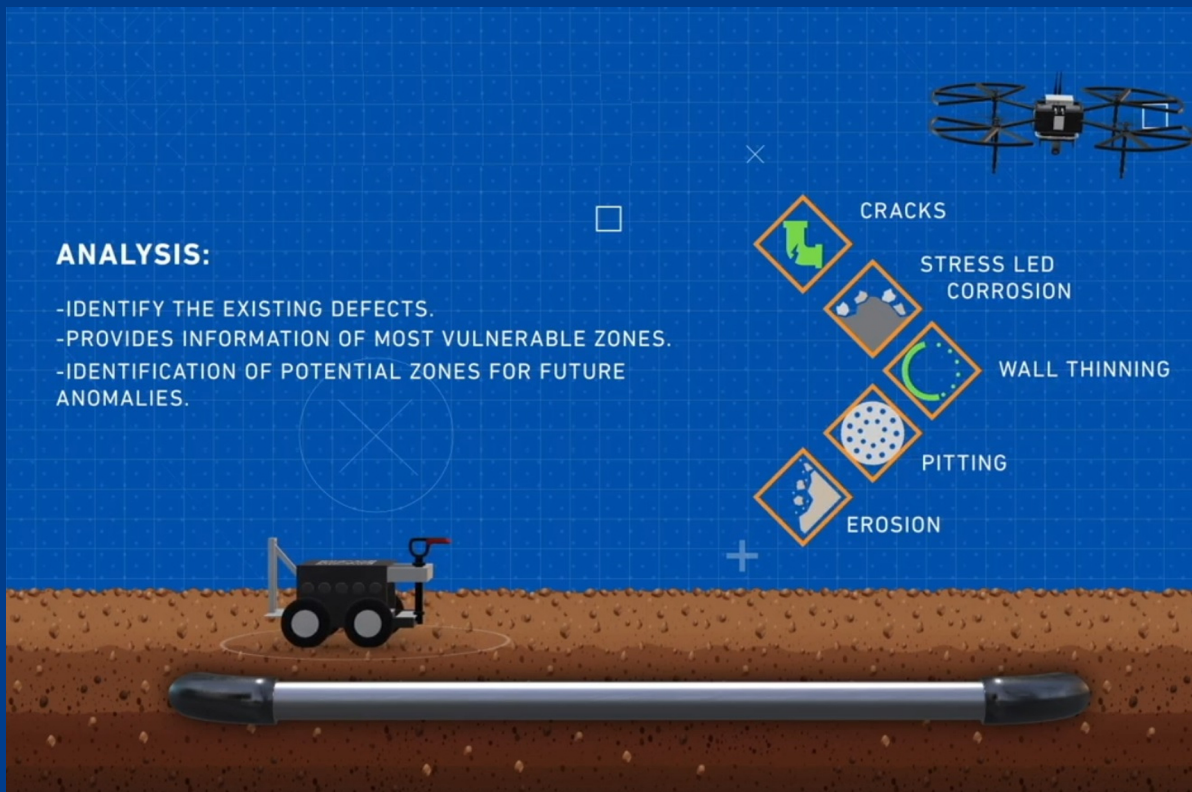
APPLICATIONS

Aerial & ground surveillance and Inspection of

- Utility industry pipelines- oil and gas, water etc
- Underground power cables
- Tele-Communication cables

BENEFITS

- Pipeline surface preparation is not required unlike conventional NDT techniques
- Inspection of live and offline (zero-pressure) pipelines
- Identification of existing defects & monitor defect growth
- Early diagnostics of fatigue damages and pre-defect state of metals
- Higher inspection efficiency and reliability with the combination with conventional NDT methods
- Unnecessary excavations can be avoided
- Less number of operators
- Operational costs of this technology is significantly lower than the conventional inspection methods
- The blind gap between knowledge of health condition between two successive ILI inspection can be filled with this technology



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