



GEO DYNAMICS IS HAPPY TO LAUNCH GPR SERVICES!

Our December newsletter got delayed as there was hectic activity during the last month and we were busy working on new products. We deviate from our regular topic of deep foundation testing to announce a new product that we have recently acquired.

Geo Dynamics is glad to announce acquisition of Ground Penetrating Radar (GPR) system with a range of antennas. GPR is a geophysical method that uses radar pulses to image the subsurface. GPR profiles are used for evaluating the location and depth of buried objects, voids, etc.



GPR Equipment

Geo Dynamics now offers a wide range of applications for various industries. Bridge professionals and structural engineers require effective methods for determining the condition of aging bridge decks, parking structures, dams or any other reinforced concrete structures. Now with GPR technology it is possible to assess condition of bridge decks, determine concrete cover and bridge deck thickness etc. Cutting and coring experts and construction professionals require a reliable, non-destructive means to locate targets such as reinforcement within concrete structures prior to drilling, cutting or coring.

GPR is the tool of choice based on ease of use, field-proven durability, and accuracy for locating rebars, post-tensioned cables and conduits as well as estimating slab thickness and detecting the presence of voids that can impact the structural stability of concrete slabs.

We also offer utility locating services (Typical output is shown in the Figure) - a reliable method to locate subsurface targets prior to digging, trenching, or conducting site assessments, and mapping. Now we can locate the depth and position of metallic and non-metallic pipes in real time, can identify and

delineate voids under the surface, identify septic tanks, or underground storage tanks (USTs) using GPR.

GPR can also be used for road inspection to estimate pavement thickness, base and sub-base evaluations etc. Similarly railway ballast assessment can also be performed with GPR. In fact other than Civil Engineering applications GPR tool is very effective in archeological and forensic applications.



GPR Survey in progress

The following table provides various fields where GPR can be used as well as its general applications.

Field of Application	General Application
Concrete inspection	Concrete cover, rebar locating, conduits in concrete slabs, slab thickness, voids, Raft inspection
Bridge Inspection	Deck thickness assessment, deck delamination
Irrigation departments, civil works	Utility locating (Metallic/nonmetallic), duct banks, Dam Inspection, Underground storage tanks, septic tanks
Electrical and Plumbing	Underground cables/piping, concealed wiring/conduits detection for residential and commercial buildings
Roadways	Asphalt/Concrete thickness, base-subbase evaluations, void detection
Airports	Runways, taxiways, aprons, hangar inspection
Geological and Geotechnical	Underground void (sinkhole detection), water table mapping, bedrock profiling, Bathymetry, Stratigraphy
Railways	Ballast condition assessment
Environmental	Landfill delineation, ground waste investigations
Others	Forensic, archaeology, mining

For all technical queries contact us at info@geodynamics.net

For all testing queries
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For all equipment sales
Contact: Mr. Dixit Nakum
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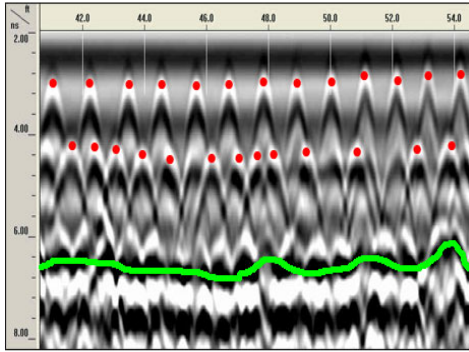
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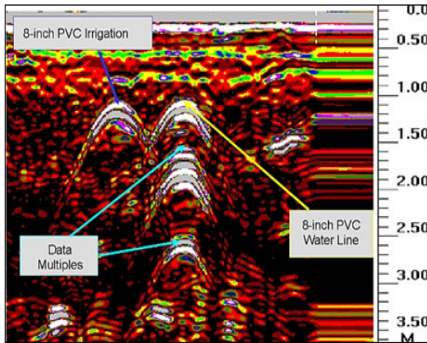


● Rebar

Typical output - Concrete Inspection



Range - 5m



Typical output - Underground Utilities



Range - 3m

As with all non destructive testing methods and geophysical methods, it is important to know the limitations and its application to a particular job and thus these tests require specific expertise. Geo Dynamics is now trained to execute projects with GPR in addition to our expertise in non destructive testing.



Range - 8-10m



Range - 1m

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Range - 0.5m

We own complete array of the antennas to scan as shallow as 300mm depth for structural applications up to 10m for utilities(as shown in pictures above) for various applications. We are confident that this innovative technology will be very effective and useful for the construction and allied industries. Please contact Mr. Sujan Kulkarni (email: sujan@geodynamics.net; Ph.:8000982277) for all GPR related testing queries.

GEO DYNAMICS CONDUCTED JOINT SEMINAR WITH PROCEQ AT AHMEDABAD

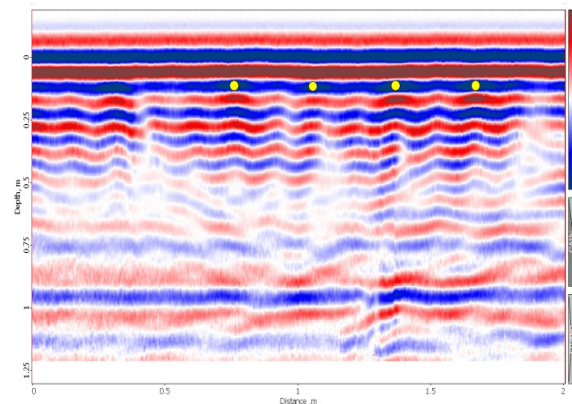
Geo Dynamics conducted a half day informative technical seminar at Ahmedabad on November 22, 2011. About 40 professionals were present for the event from private sector as well as from different government departments. Mr. Ravikiran Vaidya started the seminar by providing the overview on "Non Destructive Testing of Concrete". Proceq representatives from Singapore Mr. Amit Kumar and Mr. Logesh Raj then presented technical information related to each of their products including Schmidt Hammer, Pundit lab, rebar locator, Dyna Canin etc. The last session was conducted by Mr. Vaidya in which he provided information regarding Ground Penetrating Radar and its application in Civil Engineering. A booth was also set up where varieties of equipment were available for demonstration.

*Geo Dynamics wishes you a very happy new year.
May 2012 brings you happiness, success, peace, & togetherness of your family & friends!*



GEO DYNAMICS PERFORMS A GPR STUDY AT KOTA

Geo Dynamics performed a GPR study on webs of two post tensioned girders approximately 42m long and 3m high at Kota. The objective of the study was to estimate concrete cover for the four post tensioned ducts in each girder in order to assess the deviation of ducts from their original alignment. Geo Dynamics performed GPR scans using a high resolution antenna having range of upto 0.5m on both the sides of the girders at specified interval. A typical output is shown below.



Typical GPR Scan across girder

TECHNICAL LECTURES

Mr. Sujan Kulkarni delivered a seminar at a National Seminar organized by IGS Surat Chapter on October 9, 2011 at SVNIT Surat. The topic was innovative non destructive testing practices for deep foundations.

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