

GROUNDING IN PRECISION DRIVEN BY INNOVATION

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RockRoot, Established in 2025, Formerly as MVSK Geoservices Pvt. Ltd. Even before that worked as GeoFirm Consultancy Services since 2020. specializes in providing comprehensive services in the fields of Geology, Hydrology, Environmental sciences and Geotechnical Engineering such as Tunnel, Dam, Bridge & Road Projects etc and. Since its inception, RockRoot has successfully served a diverse range of clients across various industries, delivering expert solutions tailored to meet the specific needs of each project.

In the realm of geology, RockRoot conducts detailed geological surveys, assessments, and analyses to support resource exploration, land development, and environmental management. Their geotechnical services include soil and rock testing, foundation design, and stability assessments, ensuring safe and effective construction practices.



VISION

As RockRoot, To be a leading provider of innovative, sustainable and reliable solutions that ensure project success and safety. Your premier destination for comprehensive geotechnical, geological, hydrological and environmental consulting services and solutions tailored to meet the diverse needs of our clients. With a strong commitment to excellence, we aim to provide high-level, reliable and innovative services in the fields of geotechnical engineering, geological analysis, hydrological studies and environmental assessment.



MISSION

At RockRoot, our mission is to redefine industry standards by providing exceptional geotechnical, geological, hydrological, and environmental services. We are dedicated to continuous improvement, staying at the forefront of industry advancements to deliver cutting edge solutions to our clients.

Geotechnical Investigation

- Soil Drilling with Auto-SPT and Undisturbed sampling with borehole sizes of 75 mm, 100 mm, 125 mm and 150 mm diameter upto 300m depth.
- Rock Core Drilling for Construction & Mining of Ex, Ax, Bx, Nx, Hx, Px, AQ, BQ, NQ, HQ, PQ size.
- Trial Pits
- Standard Penetration Test (SPT)
- In situ Soil & Rock Permeability Test
- Field Density Test
- Static Cone Penetration Test (SCPT)
- Electrical Cone Penetration Test (ECPT)
- Dynamic Cone Penetration Test (DCPT)
- Pressure Meter Test (PMT)
- Field Vane Shear Test (VST)
- Field California Bearing Ratio Test (CBR)
- In Situ Shear test on Rock
- In Situ Direct Shear test on Soil



Rock Tests

- Unconfined Compressive Strength
- Tensile Strength
- Transverse Strength
- Dry Density Test
- Point Load Test
- Poisson's Ratio Test
- Porosity Test
- Permeability Test
- Specific Gravity Test
- Tensile Strength
- Water Absorption Test
- Young's Modulus Test

Remote Sensing & GIS

- Topographic Map
- Digital Elevation Model (DEM) Map
- Drainage Map
- Hillshade Map
- Flood Velocity Model
- Contour Map
- Slope Map
- Flow Map
- Flood Inundation Model
- Land Use and Land Cover

Laboratory Soil Tests

- Sieve Analysis
- Particle Size Analysis by Hydrometer Test
- Specific gravity
- Natural Moisture Content (NMC)
- Liquid Limit, Plastic Limit & Shrinkage limit
- Concrete/Bricks/Aggregates Test
- Chemical Tests
- Free Swell Index
- Light Compaction Test (Maximum Dry Density & Optimum Moisture Content)
- Heavy Compaction Test (Maximum Dry Density & Optimum Moisture Content)
- California Bearing Ratio (Lab CBR) Soaked & Unsoaked
- Unconfined Compressive Strength of Soil
- Triaxial Compression Test-Unconsolidated Undrained (UU)
- Triaxial Compression Test-Consolidated Undrained (CU) with Pore Pressure Measurement
- Triaxial Compression Test-Consolidated Drained (CD)
- Direct Shear Test-Unconsolidated Undrained (UU)
- Direct Shear Test-Consolidated Undrained (CU)
- Direct Shear Test-Consolidated Drained (CD)
- Consolidation Test
- Swelling Pressure Test
- Lab Vane Shear Test
- Permeability by Constant head
- Permeability by Falling head



Non-Destructive Tests

- Pile Integrity Test (PIT)
- Flat Jack Test
- High Strain Dynamic Load Test
- Cross Hole Sonic Logging (CHSL) Test
- Rebound Hammer Test
- Ultrasonic Pulse Velocity Test
- Concrete Pull-Out Test
- Concrete Core Testing

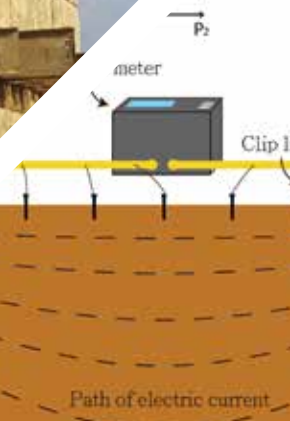
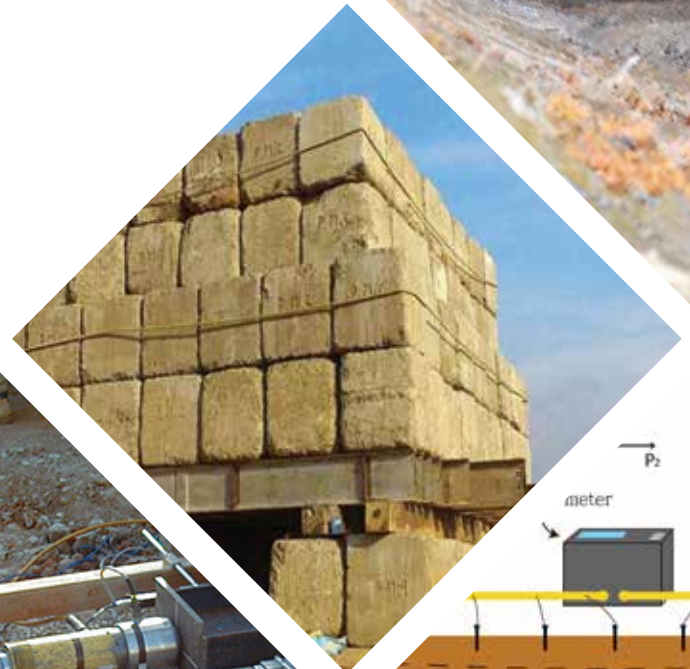
Geophysical Tests

- Electrical Resistivity Test
- Imaging 1D 2D (ERT)
- Seismic Refraction Test (SRT)
- Seismic Cross Hole Test
- Seismic Down Hole Test
- Acoustic Logging of Boreholes
- Density Logging of Boreholes
- Electrical Logging of Boreholes
- Multi-channel Analysis of Surface Waves (MASW)



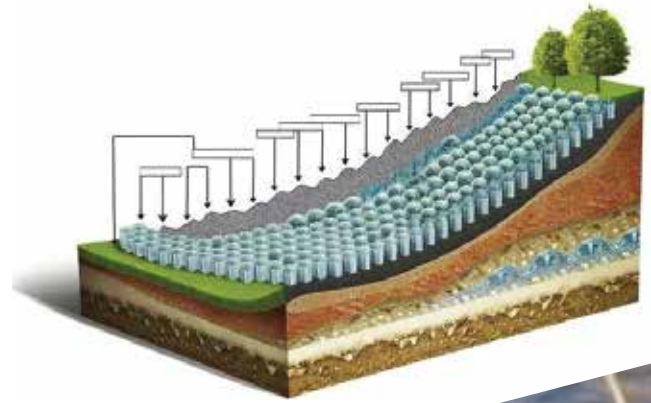
Pile Load Tests

- Static Vertical Pile Load Test
- Bi Directional Static Pile Load Tests
- Cyclic Pile Load Test
- Pile Pull-out Test
- Lateral Dynamic Pile Load Test
- Plate Load Test
- Bridge / Slab Load Test
- Cyclic Lateral Load Test
- Rock Anchor Pull-Out Test
- Lateral Load Test



Slope Protection

- Soil Analysis
- Site Characterization
- Preliminary Survey
- Slope Stability Analysis
- Ground Improvement Techniques
- Environmental Assessment
- Risk Assessment
- Design & Assessment of Slopet
- Protection System of Slope



Survey & Mapping

- Geological Survey
- Hydrological Survey
- Topographical Survey
- Drone Survey
- Cadastral Survey
- Engineering Survey
- Contour Survey
- Geological Mapping
- Tunnel Face Mapping
- 2D Tunnel Geological Mapping
- 3D Tunnel Geological Mapping



PROJECTS



2km road ways hillslope, Slope Stability Survey

Client : Udaipur, Rajasthan with SayE for L & T.



4 Blocks, Geological Mapping for Bridge.

Client : Amne, Kalyan for Navayuga



Geological Face Mapping of NATM Tunnel for Design & Construction

Client : J. Kumar Infraprojects Limited, Pune.



Pull Out Test Performed at Airoli, Interlink Tunnel

Client : SMC Infrastructures Pvt. Ltd.



Ground Penetrating Rada survey for electrical line

Client : Ideas Electrical, Sambhajinagar



Electrical Resistivity Tomography & Rainwater Harvesting Survey

Client : Durocrete Engineering Pvt. Ltd.

OUR CLIENTS



DIRECTORS

“From the heartbeat of the Earth to the skyline of tomorrow RockRoot Innovations turns geology into vision, data into direction, and challenges into foundations of progress.”



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