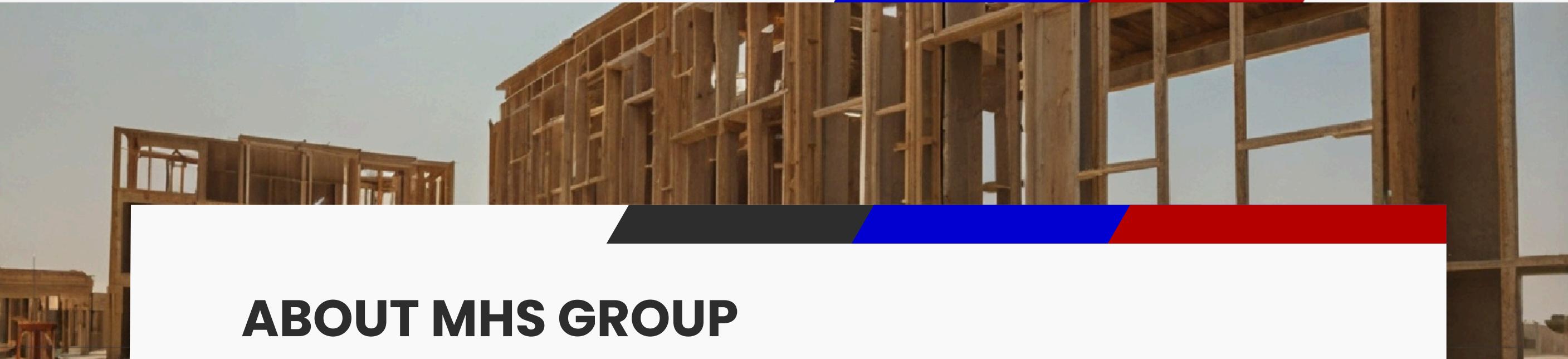




# MHS GROUP

Construction Management and GPR Survey Project Management



## ABOUT MHS GROUP

MHS GROUP is a leader in two distinct fields: luxury villa construction management and advanced geophysical services. Our mission is to deliver exceptional quality and innovation. In villa construction, we ensure seamless project execution through expert supervision, material supply, and engineering oversight. On the geophysical side, we offer cutting-edge solutions such as geophysical surveys, Electrical Resistivity Tomography (ERT), Ground Penetrating Radar (GPR), and more, redefining standards in exploration and assessment.



# COMPANY OVERVIEW

## MISSION STATEMENT

To deliver unparalleled quality and innovative solutions in construction management and geophysical services, enhancing the built environment and ensuring the longevity of our projects.

## CORE VALUES

- Integrity: We conduct our business with the highest ethical standards.
- Innovation: We continuously seek new ways to improve our services and deliver value.
- Excellence: We strive for excellence in every aspect of our work.



# SERVICES OFFERED

## Luxury Villa Construction Management

- Project Coordination: Comprehensive management of the construction process.
- Site Management: Supervision of workers and adherence to safety standards.
- Material and Machinery Supply: Efficient procurement strategies.
- Engineering Support: On-site technical expertise for problem-solving.



# Advanced Geophysical Services

## Concrete Scanning

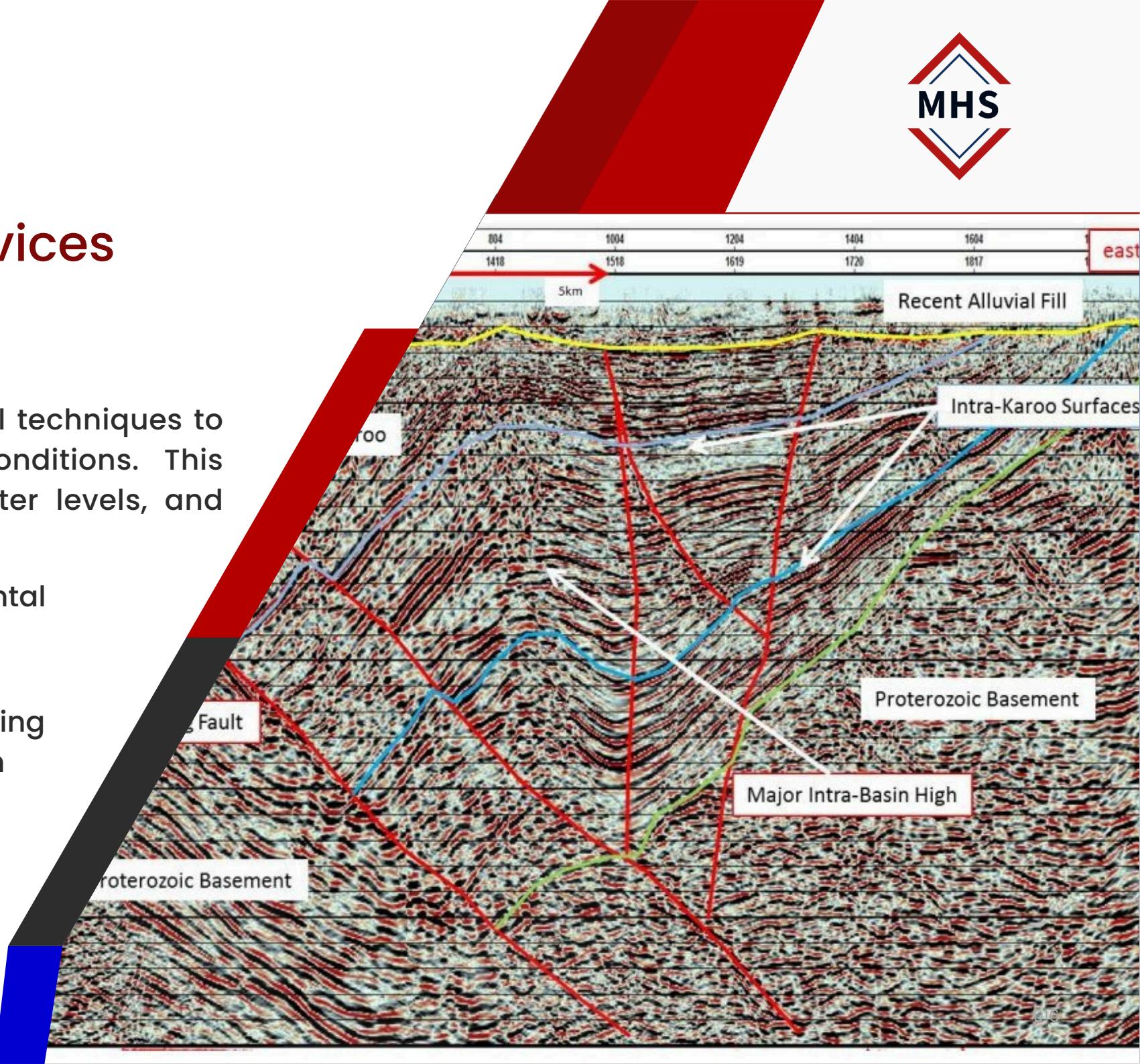
- **Description:** A specialized application of GPR, concrete scanning provides detailed information about the condition and composition of concrete structures.
- **Non-Destructive Testing:** Allows for assessments without damaging the structure, providing a clear view of internal conditions.
- **Safety and Maintenance:** Helps identify potential structural issues before they escalate, ensuring the safety of occupants and compliance with regulations.



# Advanced Geophysical Services

## Geophysical Surveys

- Description:** We utilize various geophysical techniques to gather detailed data on subsurface conditions. This includes identifying soil types, groundwater levels, and potential hazards.
- Applications:** Site investigations, environmental assessments, and planning for construction projects. These surveys help inform engineering decisions and minimize risks associated with unexpected subsurface conditions.



# Advanced Geophysical Services

## Electrical Resistivity Tomography (ERT)

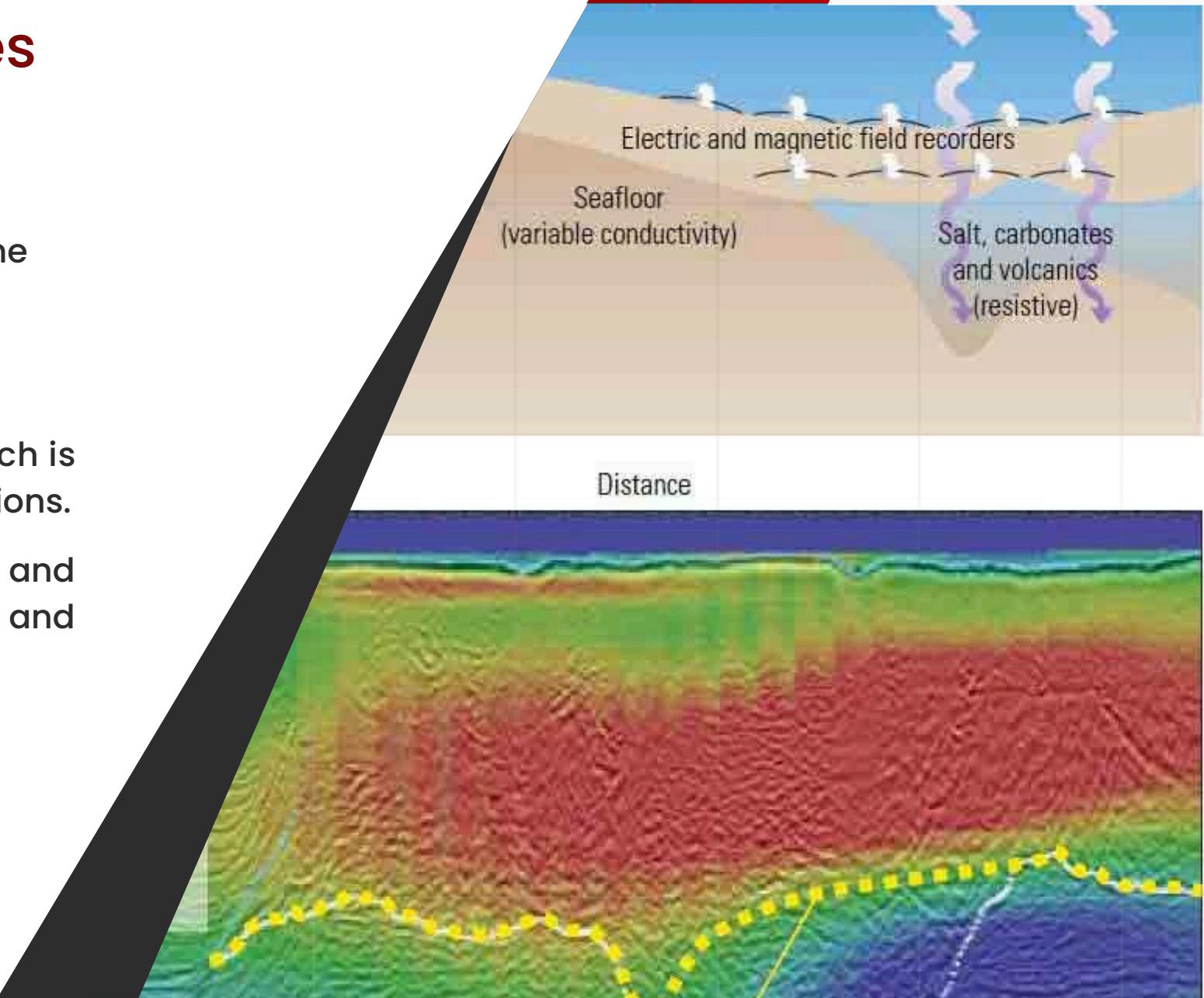
- **Description:** ERT is a non-invasive imaging technique that uses electrical resistivity measurements to create detailed cross-sections of subsurface materials.
- **Benefits:** High-resolution imaging aids in identifying contamination zones, groundwater flow paths, and stratigraphic variations. This information is critical for environmental assessments and remediation planning.



# Advanced Geophysical Services

## Ground Penetrating Radar (GPR)

- **Description:** GPR employs radar pulses to image the subsurface, allowing for concrete scanning and underground mapping.
- **Concrete Scanning:** Detecting rebar, post-tension cables, and voids within concrete structures, which is essential for renovation, repair, and safety evaluations.
- **Utility Mapping:** Locating buried utilities and structures, facilitating safer excavation and construction activities.



# Advanced Geophysical Services

## 3D Modeling and Seismic Fraction

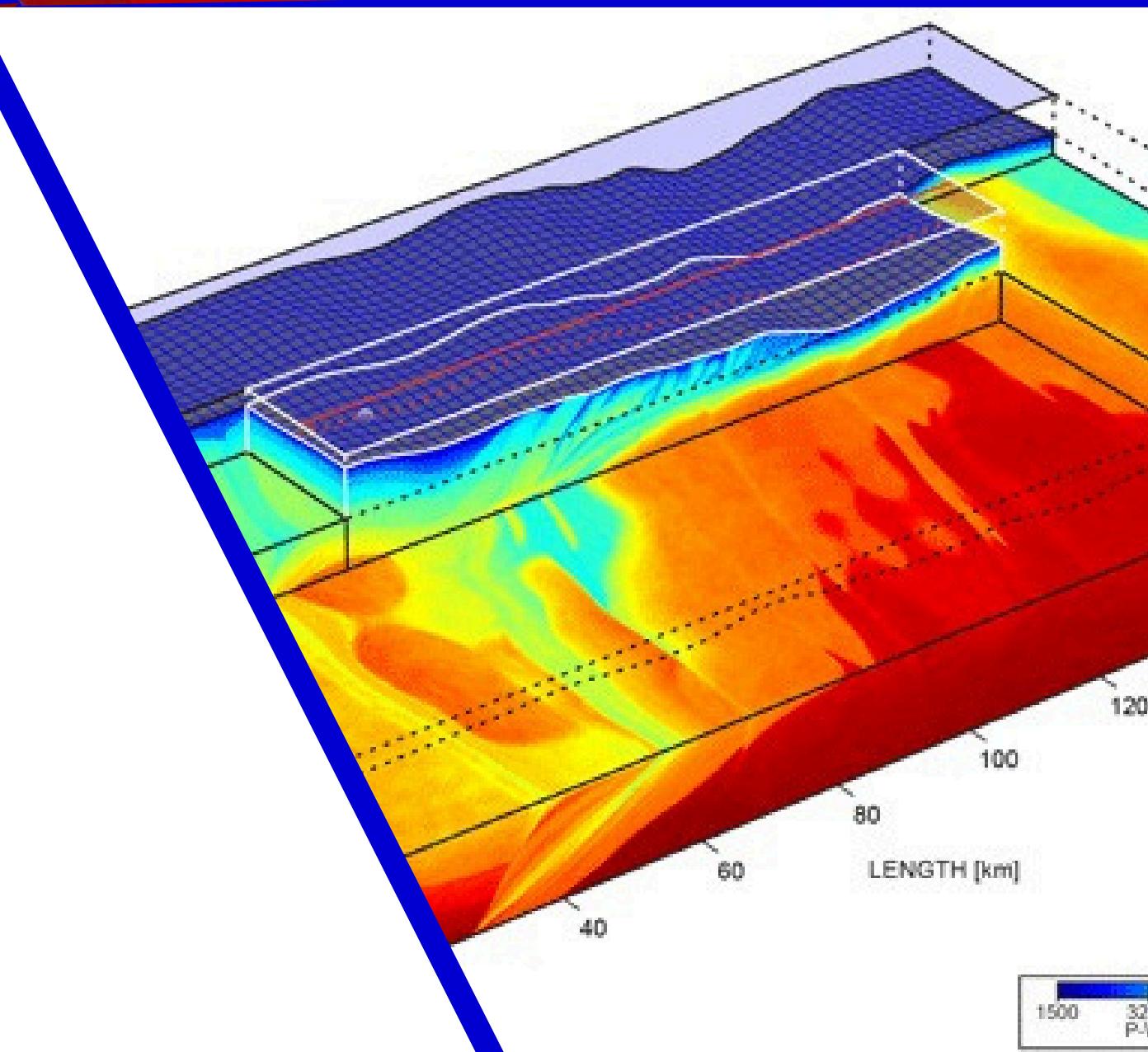
- **Description:** This service involves creating three-dimensional models to visualize structural behavior under various conditions, supported by seismic analysis.

**Structural Analysis:** Understanding how structures

- respond to seismic forces, crucial for earthquake-prone areas.

**Design Validation:** Assisting engineers in validating

- design concepts and optimizing structural integrity through simulations.



# Advanced Technical Services

## CONCRETE CORING SERVICES

- **Capabilities:** Precise core drilling for reinforced concrete, asphalt, brick, cinderblock, and precast concrete.
- Cutting round holes up to 45 inches in diameter at any required angle or depth.
- Vertical, horizontal, and upside-down drilling for walls, floors, ceilings, or any structural material.
- **Applications:** Electrical, plumbing, heating, sewer, sprinkler systems, and unique installation requirements.
- Suitable for commercial, industrial, medical, and residential projects.
- **Key Features:** Dustless, vibration-free, low-noise operation.
- Clean, efficient, and quiet drilling processes.
- Power options include 110V, 220V, hydraulic, and air-powered drills.



# Advanced Technical Services

## Chemical Anchor Services

- **What is Chemical Anchoring?** A method of drilling a hole, applying resin or concrete, and inserting a bolt to create a strong fixing point. Suitable for heavy-load applications and reduces stress on the base material.
- **Advantages:** Stronger bonds than the base material. Ideal for close-to-edge fixes, reduced center anchoring, and unknown or low-quality concrete. Uses HILTI anchors, ensuring innovative and reliable anchoring solutions.
- **Applications:** Fixing steel studs, bolts, and anchorages in masonry or concrete substrates.
- High-load applications in commercial and industrial environments.

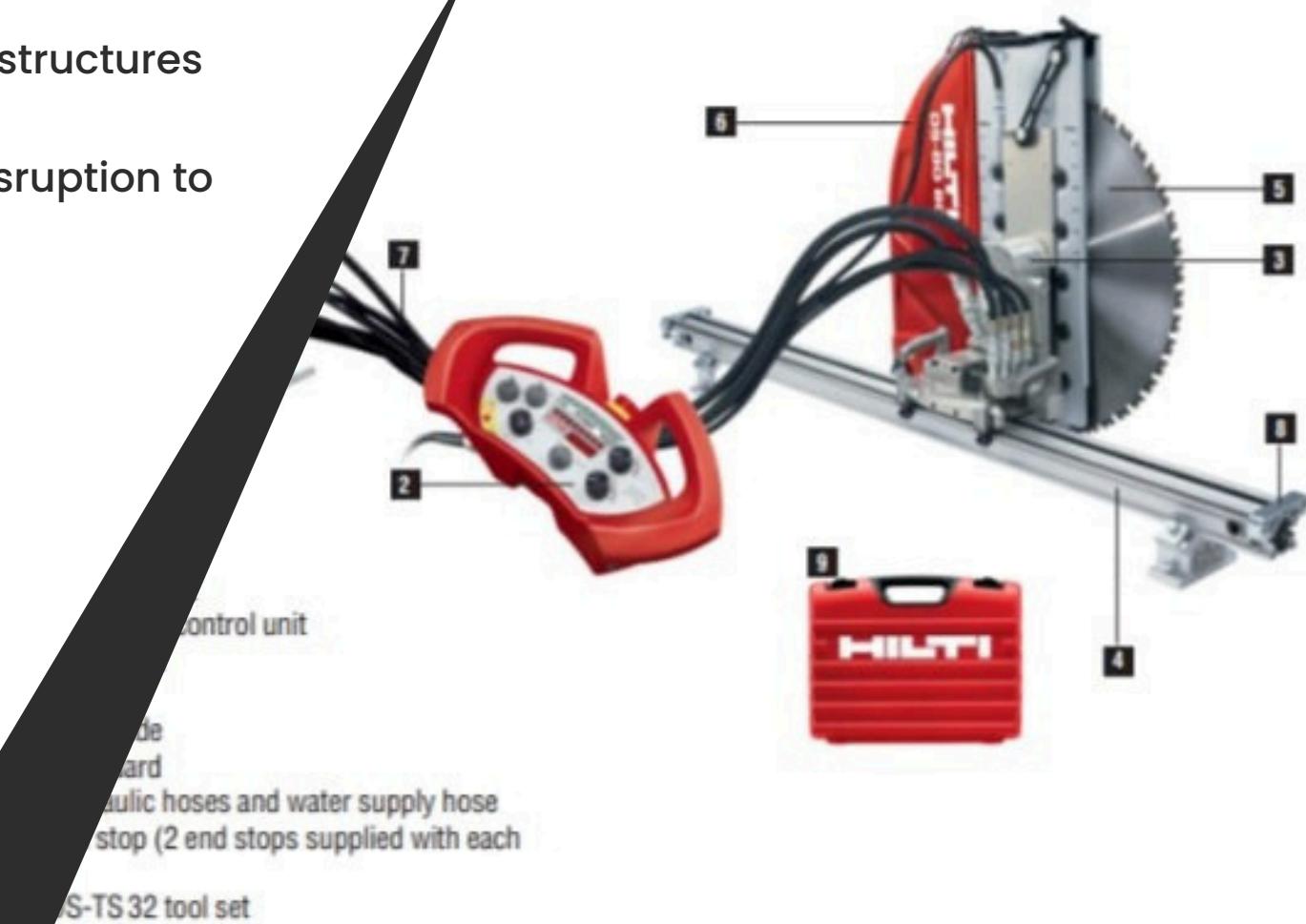




# Advanced Technical Services

## Concrete Cutting Services

- **Capabilities:** Cutting openings in concrete walls, floors, or structures with diamond tools and Swiss equipment.
- Suitable for modifications in occupied buildings with no disruption to occupants.
- **Applications:** Ideal for hospitals, commercial spaces, and residential areas requiring structural modifications.
- Openings for windows, doors, or structural reinforcements.
- **Key Features:** Dustless and vibration-free cutting ensures no structural damage.
- Quick, efficient, and silent operations.
- Tools include DLP 32 for precision cutting.



# Advanced Technical Services

## Demolition and Disposal Services

- **Capabilities:** Safe and efficient demolition of concrete structures.
- Removal of debris and waste generated during coring, cutting, or demolition activities.
- **Municipality Disposal Compliance:**
  - Waste is collected, segregated, and transported for proper disposal as per local municipal guidelines.
  - Ensures adherence to environmental regulations and safety standards.



# Advanced Geophysical Services

## Downhole Logging

- **Description:** This technique involves lowering sensors into boreholes to assess geological formations and properties of subsurface materials.
- **Resource Extraction Planning:** Evaluating the potential for oil, gas, or mineral extraction by assessing formation properties and fluid content.
- **Environmental Monitoring:** Monitoring groundwater levels and quality over time, essential for environmental protection efforts.





# ONGOING PROJECTS



## ONGOING PROJECTS

# Crack Assessment – Jumeirah Lake Towers

- Scope of Work: Conducting site investigations and material sampling to assess ongoing cracking issues in the PT slab.
  - Performing a root-cause analysis to determine if the cracking is structural or non-structural, and providing recommendations for immediate repairs and future preventative measures.
  - Outcome (Expected): Ensured the structural integrity of the slab and provided solutions to mitigate future cracks.
- 
- Location : Dubai, UAE
  - Client : Young Engineering Consultancy



ONGOING PROJECTS

## K48 Villa Renovation

- Scope of Work: Strengthening of existing columns, beams, and footings to ensure they meet updated load-bearing requirements. Monitoring and quality assurance to ensure that all work complies with both the design specifications and safety standards.
- Outcome (Expected): Improved structural safety and resilience, supporting the renovations and future usage of the villa.

- Location : Dubai, UAE
- Client : Waterseal Insulation Material Contracting



## ONGOING PROJECTS

# Double Storey Villa

- **Scope of Work:** Conducting a comprehensive structural assessment of the villa to analyze the integrity of load-bearing elements. Performing crack mapping and distress analysis to identify the cause of structural cracks and prevent future occurrences.
  - **Outcome (Expected):** Strengthened the structure to enhance durability while providing repair recommendations that align with the architectural design.
- 
- Location: : Ras Al Khaimah, UAE
  - Client : Al Hoty Laboratory



## ONGOING PROJECTS

# Shatti Al Qurum Hotel

- Scope of Work: Strengthening of Post-Tension (PT) slabs at three key locations using CFRP technology to address flexural deficiencies.
- Outcome (Expected): Increased load-bearing capacity of the PT slabs, ensuring the hotel meets safety standards for both current use and future expansion.

- Location: : Muscat, Oman
- Client : Euro Postech International





# COMPLETED PROJECTS

## COMPLETED PROJECTS

## PALM JUMEIRAH BOARDWALK

- ★ Executed a structural assessment and waterproofing strategy for the boardwalk area, focusing on environmental impact and usability.
  - ★ Utilized advanced modeling techniques to predict wear patterns and plan for preventive maintenance.
  - ★ Extended the lifespan of the boardwalk, ensuring safe and enjoyable experiences for visitors.
  - ★ Fostered a harmonious blend of functionality and design, enhancing the area's appeal.
- Location: : Dubai, UAE:



## ONGOING PROJECTS

# Serenia Residence Basement

- Scope of Work: Executed detailed chloride content analysis in concrete samples to assess the potential for corrosion of embedded reinforcement bars. Recommended targeted corrosion protection strategies, including cathodic protection and the application of corrosion inhibitors. Developed a comprehensive report with actionable insights for preventive maintenance. Outcome: Successfully mitigated corrosion risks, leading to improved structural integrity and reduced repair costs over time.
- Provided the client with peace of mind regarding the longevity and safety of the underground structure.
- 

- Location: : Dubai, UAE
- Client : ENOVA



## ONGOING PROJECTS

# Marsa Al Seef Development

- **Scope of Work:** Conducted structural integrity assessments and waterproofing strategies for various structures within the development.
  - Collaborated with architects to ensure design and engineering alignments, focusing on resilience against environmental factors.
  - **Outcome:** Improved resilience against water intrusion and environmental degradation, enhancing the longevity of the development.
  - Fostered a successful partnership with stakeholders, resulting in a timely project completion.
- 
- **Location:** : Dubai, UAE



## ONGOING PROJECTS

# Hard Rock Hotel

- **Scope of Work:** Conducted comprehensive condition assessments and structural evaluations for ongoing refurbishment works. Engaged in historical structural analysis to inform modern renovations, ensuring integrity was preserved while enhancing aesthetic appeal.
- Provided detailed engineering reports to guide contractors on necessary repairs and upgrades.
- **Outcome:** Elevated safety standards while maintaining the hotel's unique character and charm.
- Enhanced guest experience through improved facilities and infrastructure.
- **Location:** Abu Dhabi, UAE



## COMPLETED PROJECTS

# Deira City Centre

- **Scope of Work:** Performed an in-depth roof strength integrity assessment, focusing on the impact of new hydro panel installations.
- Used structural analysis software to model load distributions and potential failure points.
- Collaborated with contractors to ensure compliance with safety regulations during the installation phase.
- **Outcome:** The roof was successfully reinforced to handle additional loads, minimizing the risk of structural failure.
- Enhanced safety measures contributed to the center's reputation as a reliable shopping destination.

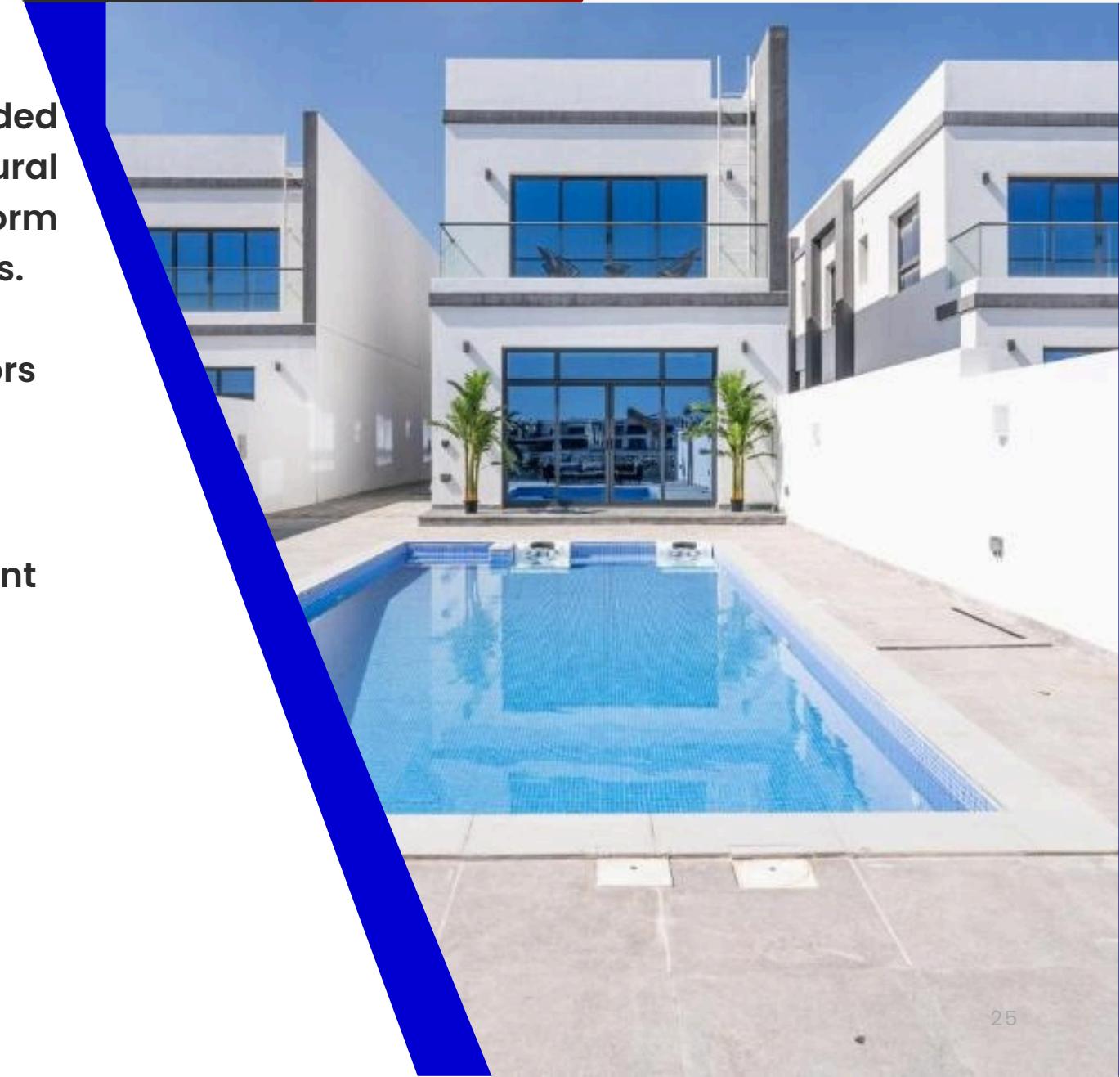
- Location: : Dubai, UAE
- Client : ENOVA



## COMPLETED PROJECTS

# Nasma Luxury Villas

- Scope of Work: Managed construction and provided geotechnical assessments for villa sites, ensuring structural stability and compliance. Conducted site surveys to inform design decisions and mitigate risks related to soil conditions.
  - Collaborated closely with architects and contractors throughout the construction phase.
  - Outcome: Successfully delivered high-end villas with an emphasis on structural integrity and aesthetic appeal.
  - Enhanced client satisfaction through transparent communication and project management.
- 
- Location : Dubai, UAE



## COMPLETED PROJECTS

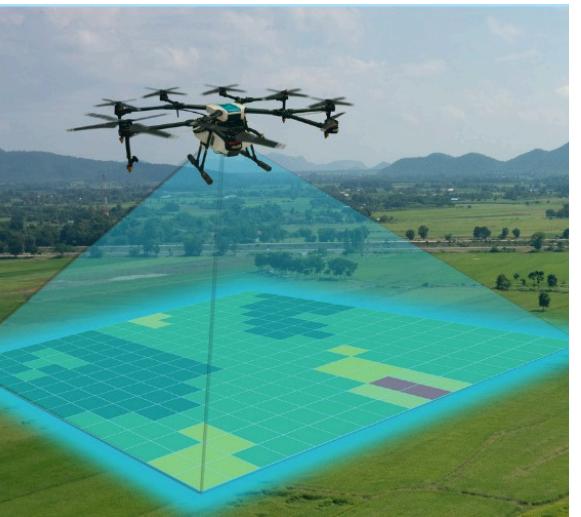
# Fujairah Waterfront Development

- Scope of Work: Conducted geophysical surveys and structural assessments to facilitate development plans.
  - Assessed marine conditions and environmental factors influencing design and construction.
  - Provided engineering recommendations for foundational support systems and material selections.
  - Outcome: Enabled a successful waterfront project with robust foundations, contributing to the region's development goals.
  - Enhanced stakeholder confidence through rigorous assessments and detailed reporting.
- 
- Location : Fujairah, UAE





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# MHS GROUP



## DUBAI

OFFICE #204 – 2ND FLOOR – CZAR –  
FALCON HOUSE – NEAR DIP METRO  
STATION – DUBAI INVESTMENT PARK –  
DUBAI – UAE Tel: +971 544290205  
Email: [Info@mhs-gpr.com](mailto:Info@mhs-gpr.com)



## MOHAMED HUSSAIN SHAZ

CEO Mob:+971 54 429 0205  
Email: [Shaz@MHS-GPR.com](mailto:Shaz@MHS-GPR.com)

