

INTERNATIONAL GEOTECHNICAL INNOVATION CONFERENCE

Dates: 6-7 MAY 2024

Workshop: **5 May 2024**

www.geotechnicalinnovationconference.com

A NEW ERA OF SUSTAINABLE GEOTECHNICS IN THE GCC

JEDDAH HILTON, KINGDOM OF SAUDI ARABIA



COLLOCATED WITH

ORGANIZED BY

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EVENT OVERVIEW

The value of GCC's ambitious mega structures now exceed USD 2 trillion. Saudi Arabia leads the region in mega construction projects, with a string of mega cities', super tall buildings' and infrastructure projects currently in various stages of planning and design. At the heart of the Saudi Arabia's USD 725 billion megacities project is the Line - a 170-km long, 500m tall mixed used structure. Following closely on its heel is the UAE, with scores of new mega projects spanning from the Burj Binghatti, expected to exceed 472m height, to the Palm Jebel Ali among others.

Considering the desert, arid, and semi-arid soil conditions found in the GCC, the deep foundations, underground excavations and geotechnical aspects associated with



construction of these megaprojects present significant challenges. The International Geotechnical Innovation Conference (IGIC 2024), taking place in Jeddah, Saudi Arabia, from 6-7 May 2024 aims to delve into the deep foundation design and construction requirements imperative for enabling the safe, cost-efficient and timely completion of projects.



GCC - \$2 trillion plus

MENA - \$3 trillion

Construction projects in



EVENT IN NUMBERS ** 2 400+ 30+ 10+ Delegates **Speakers** Sessions **Case Studies** Workshops

MEET THE TECHNICAL ADVISORY COMMITTEE

Chairman of Technical Advisory Committee



Dr. Marwan Alzaylaie



Karim Khalaf Geotechnical **Consulting Manager**



Hamzah Al-Hashemi

Ph.D. Candidate, LEED Green Associate Regional Manager (GCC & MENA). Geofem Ltd., Cyprus, CEO & Technical Director, GeoStruXer Founder, Gulf Geotechnical Engineers (GGE Platform)



Dr. Ahmed Stifi

Managing Director Acumen Consulting Germany



Prof. Zoubeir Lafhai Chair Holder 'Construction 4.0', President - IFCL, Centrale Lille, France



Dr. Rodaina Hosn





Prof. Saad Aiban Founder and General Manager, Maeen Engineering Consultancy Professor CEE, KFUPM University SWCC Approved Soil Expert



Dr. Saeed Alzahrani

Assistant Professor Civil and Construction Engineering Department, School of Engineering Imam Abdulrahman Bin Faisal University Saudi Arabia



Prof. Omar Al-Amoudi

Professor, Department of Civil Environmental Engineering, KFUPM Saudi Arabia



Dr. Ghassan Sutaih

Assistant Professor King AbdulAziz University Saudi Arabia

KEYNOTE SPEAKERS



Prof. Dr. Ing. Rolf Katzenbach Professor, Technical University of Darmstadt, Germany



Prof. Robert Liang Department Chair. Professor, School of Engineering, Department of Civil and Environmental Engineering and Engineering Mechanics, University of Dayton



Prof. Jie Han Ph.D., PE, FASCE, Roy A. Roberts Distinguished Professor Department of Civil, Environmental, and Architectural Engineering Department, University of Kansas, USA



Prof. Zoubeir Lafhaj Chair Holder 'Construction 4.0', President - IFCL, Centrale Lille, France



Prof. Deepankar Choudhury

FASCE, FNASc, FNAE, FASc, FIE; Chair Professor (HAG), Head – Department of Civil Engineering, Indian Institute of Technology Bombay, India



Dr. Marc Ballouz

President, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) U.S.A



Prof. Saad Aiban Founder and General Manager -Maeen Engineering Consultancy Professor CEE - KFUPM University SWCC Approved Soil Expert



Prof. Mohamed Shahin

School of Civil & Mechanical Engineering, Curtin University Australia

SPEAKERS



Dr. Cristian de Santos CEO & Co-Founder SAALG Geomechanics Spain



Dr. Ahmed Alnuaim Senior Geotechnical Consultant, Saudi Mining Services Company (ESNAD), Saudi Arabia



Dr. Ahmed Elkadi

Head of Department Energy and Underground Infrastructure, Deltares, Netherlands



Prof. Omar Al-Amoudi

Professor, Department of Civil & Environmental Engineering, KFUPM Saudi Arabia



Astrid Aubry

Chief Technology Officer ARQ & Partners LLC, Consulting Engineers Oman



Hamzah Al-Hashemi

Ph.D. Candidate, LEED Green Associate, Regional Manager (GCC & MENA), Geofem Ltd; Cyprus, CEO & Technical Director, GeoStruXer; Founder, Gulf Geotechnical Engineers (GGE Platform)



Dr. Rodaina Hosn Assistant Professor - Civil Engineering College of Engineering Australian University, Kuwait



Dr. Skevi Perdikou Technology Manager Geofem Cyprus



Dr. Mohamed Al-Atroush

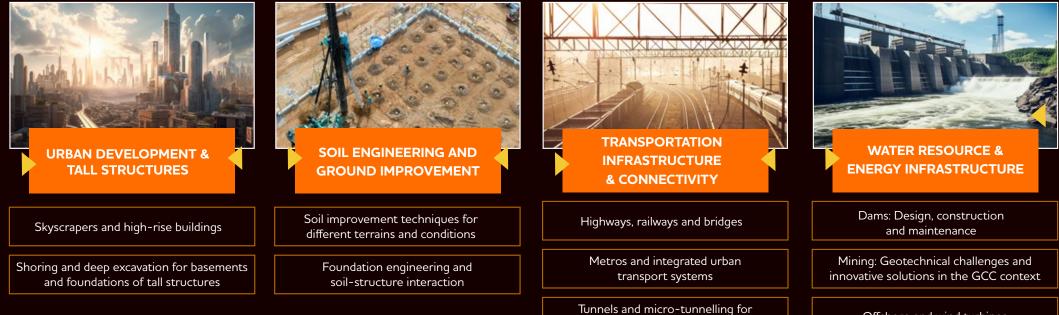
Associate Professor of Geotechnical Engineering College of Engineering, Prince Sultan Univeristy, Saudi Arabia

CURRENT AND UPCOMING PROJECTS IN FOCUS

| Project | Description | Client | Project Value | Expected Completion Date |
|--|--|--|------------------------------|--------------------------------|
| The Line, Neom | A cognitive city stretching across 170 kilometers, A mirrored architectural masterpiece towering 500 meters above sea level and 200 meters wide. | | Estimated at USD 200 – 100bn | |
| The Avenues Riyadh, Saudi Arabia | The project calls for the construction of a shopping mall, one 5-star and one 4 star hotels with 500 rooms, two residential towers with 1050 units and medical tower with 240 clinics. | Shomoul Holding Company | US\$3467 Mn | Construction |
| The Bahrain Metro Project - Phase 1, Bahrain | Phase 1 featuring 2 lines will consist of 28.6 km of LRT and tram network covering 20 stations and 2 Interchanges. | Ministry of Transportation and Telecommunications (MTT) Ministry of Works, Municipalities Affairs and Urban Planning | US\$1200 Mn | Design |
| The Red Sea Project, Saudi Arabia | Construction of a mega resort located between the cities of Amlaj and Wajh, Tabouk Province. The project will cover 50 islands and 34,000 square kilometers. The first phase will include hotels and luxury residential units, as well as all logistical infrastructures and sea transport hubs | The Red Sea Development Company (TRSDC) | US\$10 Bn | Under Construction |
| Jubail Island In Abu Dhabi, UAE | The project calls for the construction of a mixed use development located in the coastal area between Yas Island & Saadiyat Island with a total area of 32 million square meters – 9 million sqm north of Shk. Khalifa Highway & 23 million sq.m on the south. The mixed use project will have 6 distinct zones & interconnected villages including residential, commercial, F&B, retail, Hotel & serviced apartments & community areas, schools, clinic, mosques & a marina and Bed'a Al Jubail | Jubail Island Investment Company (JIIC) | US\$1736 Mn | Construction |

| Hayy Al Sharq, Oman | The project calls for the construction of an integrated theme park, a wildlife and water theme park, an equestrian centre, and edutainment centre as well as multiple hotels, a residential zone and retail areas spread over an area of 1.5 million sq.m. | Muscat National Development and Investment Company (Asaas) | US\$1000 Mn | Tender for Construction |
|---|---|---|-------------|----------------------------|
| Yas Living In North Yas (NOYA), Abu Dhabi, UAE | Project calls for the construction of a gated residential community that consists of 420 Townhouses, 90 villas and a community club with shared facilities. | | US\$989 Mn | US\$989 Mn |
| The Grove In Saadiyat Island, Abu Dhabi, UAE | The project calls for the construction of a mixed use development which will consist of a residential area with a GFA of 72981 sqm, retail/mall with a GFA of 418500 sqm, hotel with a GFA of 53301 sqm and community facilities with GFA of 4610 sqm. | Aldar Properties | US\$630 Mn | Tender for Construction |
| Redevelopment Of Mina Zayed Port In Abu Dhabi, UAE | Construction of a mixed-use development located in a 150-acre site on the Mina Zayed pier overlooking the Arabian Gulf with views of the Corniche and Abu Dhabi's skyline at Abu Dhabi's Mina Zayed (Port Zayed) area. The development will comprise of hotels, residential districts, commercial and retail areas. | Modon Properties, ADQ (Abu Dhabi Investment Holding), Aldar Properties | US\$15 Bn | Under Construction |

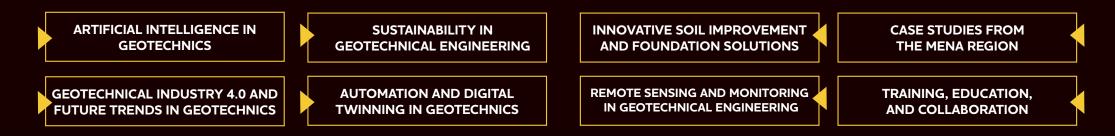
PROJECT CATEGORIES IN DISCUSSION



utilities and transit

Offshore and wind turbines

CONFERENCE THEMES



WHO SHOULD ATTEND?

CEOS, DIRECTORS, REGIONAL MANAGERS AND HEADS OF:

- Geotechnical
- Infrastructure
- Planning
- Development
- Utilities
- Drainage
- Power
- Projects
- Technical Services
- Facilities
- Operations

CATEGORIES

- Real-estate developers
- Mining companies
- Municipalities
- Road authorities
- Other project owners
- Asset managers
- Main contractors
- Consultants
- Geo-technical and civil engineers
- Sub-contractors
- Government & other regulatory bodies
- Academia

AGENDA

DAY 1 - MONDAY, 6 MAY 2024

| 08:00 - 08:30 | Registration and morning coffee | | | |
|---------------|---|--|--|--|
| 08:30 - 08:35 | Welcome address by the Technical Committee Chair | | | |
| 08:35 - 08:45 | Opening remarks | | | |
| 08:45 - 08:55 | Opening remarks | | | |
| 08:55 - 09:05 | Opening remarks | | | |
| 09:05 - 09:15 | Opening remarks | | | |
| | SESSION 1 | | | |
| 09:15 - 09:55 | 09:15 - 09:55 Keynote address 1 | | | |
| 09:55 - 10:35 | Keynote address 2 | | | |
| 10:35 - 11:05 | Opening of the Exhibition and Networking Coffee Break | | | |
| 11:05-11:45 | Keynote address 3 | | | |
| 11:45 - 12:15 | Keynote address 4 by Fugro | | | |
| SESSION 2 | | | | |
| 12:15- 12:40 | Speaker 1 | | | |
| 12:40 - 13:05 | Speaker 2 | | | |
| 13:05 - 13:30 | Speaker 3 *Reserved for industry leader | | | |
| 13:30 - 14:30 | Networking lunch | | | |
| | SESSION 3 | | | |
| 14:30 - 15:05 | Panel discussion | | | |
| 15:05 - 15:20 | Project Showcase 1 | | | |
| 15:20- 15:35 | Project Showcase 2 | | | |
| 15:35 - 15:50 | Project Showcase 3 | | | |
| 15:50 - 16:05 | Networking Coffee Break | | | |
| SESSION 4 | | | | |
| 16:05 - 16:30 | Speaker 4 | | | |
| 16:30 - 16:55 | Speaker 5 | | | |
| 16:55 - 17:20 | Speaker 6 | | | |
| 17:20 | Closing remarks by Technical Committee Chairman | | | |

DAY 2 - TUESDAY, 7 MAY 2024

| 08:00 - 08:30 | Registration and morning coffee | | |
|---------------|---|--|--|
| 08:30 - 08:35 | Welcome address by the Technical Committee Chair | | |
| SESSION 5 | | | |
| 08:35- 09:15 | Keynote address 1 | | |
| 09:15 - 09:55 | Keynote address 2 | | |
| 09:55 - 10:35 | Keynote address 3 | | |
| 10:35 - 11:15 | Keynote address 4 | | |
| 11:15 – 11:45 | Exhibition tour and networking coffee break | | |
| SESSION 6 | | | |
| 11:45 – 12:20 | Speaker 1 | | |
| 12:20 – 12:45 | Speaker 2 | | |
| 12:45 - 13:05 | Speaker 3 *Reserved for industry leader | | |
| 13:05 - 13:25 | Speaker 4 *Reserved for industry leader | | |
| 13:25 - 14:25 | Networking Lunch | | |
| | SESSION 7 | | |
| 14:25 - 15:00 | Panel discussion | | |
| 15:00 - 15:15 | Project Showcase 1 | | |
| 15:15 - 15:30 | Project Showcase 2 | | |
| 15:30 - 15:45 | Project Showcase 3 | | |
| 15:45 - 16:00 | Networking Coffee Break | | |
| SESSION 8 | | | |
| 16:00 - 16:25 | Speaker 4 | | |
| 16:25 - 16:50 | Speaker 5 | | |
| 16:50 - 17:15 | Speaker 6 | | |
| 17:15 - 17:25 | Closing remarks by Technical Committee Chair | | |
| 17:25 | Close of International Geotechnical Innovation Conference (IGIC 2024) | | |

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WHY ATTEND?



Listen to case studies from the uae and saudi arabia for super tall buildings, metro projects and underground infrastructure projects

Address the critical gap in the design and construction of deep foundations in the Middle East region

Find out the perils and negative impact of over designing deep foundation projects

Learn more about green geotechnical construction techniques and solutions, and driving sustainability in foundation engineering

Find more about digital twinning and real-time simulations for underground constructions and excavations

Learn about the critical nature of soil-surface interactions in geotechnical design for deep foundation structures

Learn about advanced soil improvement techniques

Find out the future trends in geotechnics and the game-changing role of AI and 3D printing in ground improvement

Listen to innovative micro tunnelling technologies and techniques deployed for one of the most expansive underground tunnelling projects

CONFERENCE SESSIONS IN DETAIL

A) Sustainability in Geotechnical Engineering

- Sustainable material utilization in foundation engineering
- Environmentally friendly soil stabilization techniques
- Carbon footprint reduction in geotechnical projects

B) Innovative Soil Improvement and Foundation Solutions

- Advanced ground improvement techniques for desert, semi-arid and coastal regions
- Novel deep foundation designs for high-rise structures

C) Automation and Digital Twinning in Geotechnics

- Advanced ground improvement techniques for desert, semi-arid and coastal regions
- Novel deep foundation designs for high-rise structures

D) Remote Sensing & Monitoring in Geotechnical Engineering

- Use of drones & satellites for geotechnical site assessments
- Geospatial technologies for landslide monitoring
- Advances in wireless geotechnical instrumentation

E) Artificial Intelligence in Geotechnics

- Predictive analytics in soil behavior and foundation design
- Machine learning in ground risk assessment

- Geotechnical considerations in coastal protection and sea-level rise
- Green geotechnical construction
- Geothermal energy
 - Underpinning techniques for historical and sensitive structures
 - Techniques for managing problematic soils in the Gulf
 - Soil foundation structure interaction
- Underpinning techniques for historical and sensitive structures
- Techniques for managing problematic soils in the Gulf
- Soil foundation structure interaction
- Ground-penetrating radar & geophysical advancements and applications in the region
- Geotechnical model using remote sensing
 - Automation of soil classification using Al
 - Al in geohazard identification and risk mitigation

F) Case Studies from MENA

- Geotechnical challenges and solutions in the Neom project
- Foundations for mega-structures in the Octagon

G) Geotechnical Industry 4.0 & Future Trends in Geotechnics

- The role of 3D printing in ground improvement
- Smart geotextiles and their applications

- Coastal and offshore geotechnics in the Red Sea development
- Tunneling and underground construction in the urban centers of the Gulf
- Advances in bio-geotechnics for sustainable ground improvement
- Virtual and augmented reality in geotechnical training and site visualization

H) Training, Education, and Collaboration

- Bridging the gap between academia and industry in the MENA region
- Geotechnical engineering curriculum updates for the 21st century
- International collaborations and partnerships for geotechnical innovations

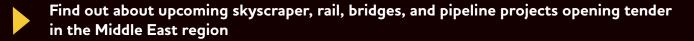
JOIN AS A PARTNER



Get exclusive one-to-one meetings with geotechnical contractors in charge of the biggest mega projects in the region especially in Saudi Arabia & UAE



Network with real-estate owners, mining companies and other project owners





Showcase your expertise and solutions in front of a room full of geotechnical contractors, project owners, structural consultants, subcontractors and other target clientele

WHO SHOULD JOIN AS A PARTNER?

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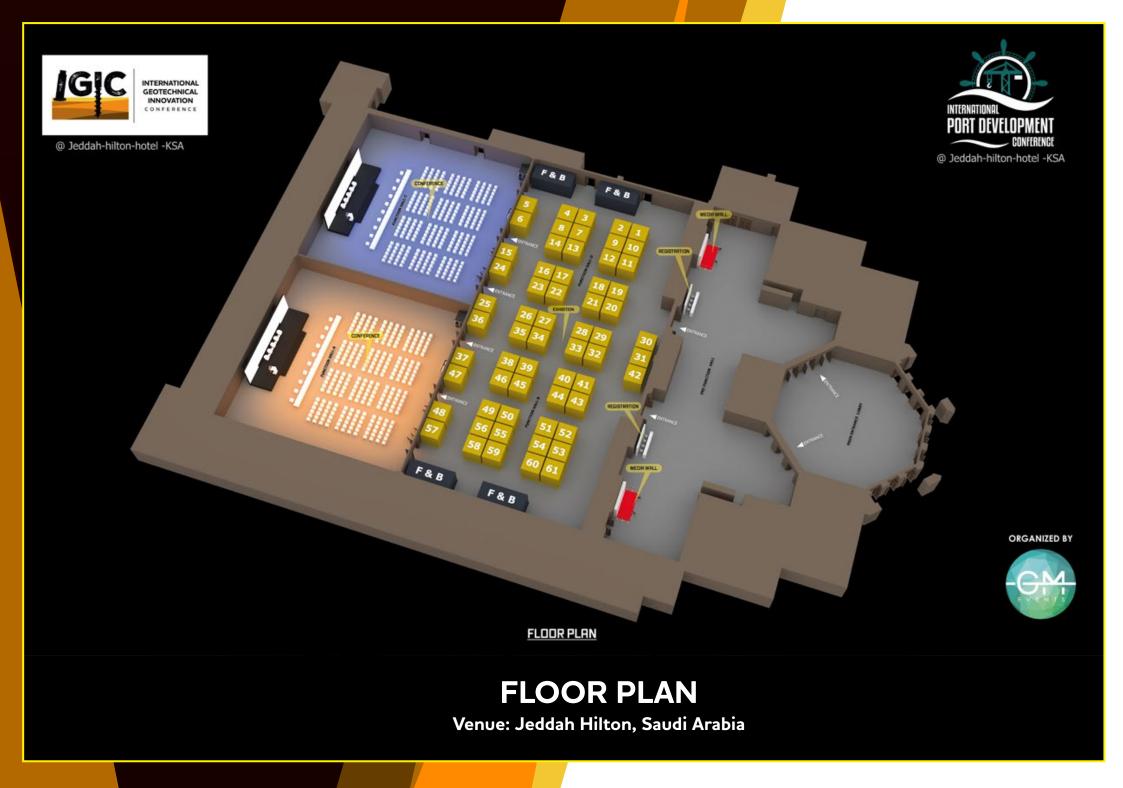
- Geotechnical contractors
- Solution Providers for:
- Drilling & piling rigs
- Micropiles & sheet piles
- Geosynthetics and deep & dynamic compaction
- Remote sensing drones, satellites and other geological survey solutions
- Geophysical & monitoring solutions
- Soil laboratories, and other soil analysis solutions
- Drilling bits and hammers

- Geotechnical designconsultants
- Concrete ready-mix and admixtures
- Concrete and water pumps
- Dewatering
- 3D printing, Digital twinning, AI & other software and technologies
- Instrumentation companies
- Hazard identification and slope stability solutions
- Other HSE & risk analytics solutions
- Carbon-negative and sustainable deep foundation engineering solutions

IF YOU ARE INTERESTED

to showcase your cutting-edge solutions and technologies for deep foundations and underground constructions, please contact us on **partnerships@gmevents.ae** or call **+971-52 969 7209**





SPONSORSHIP OPPORTUNITIES

| ltem | Description | Available Units |
|--------------------------|--|-----------------|
| Presentation (Day 1) | 20-minute presentation | 2 |
| Presentation (Day 2) | 20-minute presentation | 2 |
| Panel slot (Day 1) | Join a panel comprising of 4 panelists | 4 |
| Panel slot (Day 2) | Join a panel comprising of 4 panelists | 4 |
| Product showcase (day 1) | 10-minute slot for product demo | 4 |
| Product showcase (day 2) | 10-minute slot for product demo | 4 |
| Lunch sponsor (Day 1) | Sponsor for event lunch | 1 |
| Lunch sponsor (Day 2) | Sponsor for event lunch | 1 |
| Coffee break sponsor | Coffee sponsor for all 2 days of the event | 1 |
| VIP Majlis sponsor | Exclusive host of the VIP majlis | 1 |
| Lanyard and badges | Branded lanyards and badges for the entire event | 1 |
| Delegate bags sponsors | Exclusive provider of event bags | 1 |
| Podium sponsor | Branding on the event podium | 1 |
| Event archway sponsors | Event entry archway branding | 1 |

| Registration desk sponsor | Branding on all registration counters | 1 |
|---------------------------|--|----|
| Information wall sponsor | Sponsoring the event's mega interactive floor plan, agenda and info wall | 1 |
| Directional signage | Branding on all event external and internal directional signage | 1 |
| VIP gifts | Exclusive provider of gifts to all VVIPs | 1 |
| Delegate gifts sponsor | Exclusive sponsor of gifts to all event attendees | 1 |
| Water sponsor | Branded water bottles throughout the event | 1 |
| Exhibition only | 3x3 | 30 |

DELEGATE PARTICIPATION FEE STRUCTURE

| Programme | Timing | Delegate Fee | |
|------------|----------------------|--|--|
| Workshop A | 8AM – 5PM, 5 May | \$20 | |
| Workshop B | 8AM – 5PM, 5 May | \$20 | |
| | 8AM – 5PM, 6 & 7 May | \$50 (Standard fee) | |
| Conference | | \$25 (Early-bird fee valid til 31 March) | |

SELECT TICKET OPTIONS

- Government Authorities & Academia Complimentary
- Workshop A + Conference \$45
- Workshop B + Conference \$45
- Conference \$25
- Vendor delegate \$2799



SPEAKING INQUIRIES

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GM EVENTS

www.geotechnicalinnovationconference.com