

Issue 01 - 2025

INSIDE K&A

Khatib & Alami Newsletter

INNOVATING FOR TOMORROW

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Bangalore Design Center Wins First Award in India at Autodesk Imagine Awards • Light Rail Transit Revolutionizes Transportation in Cairo • From FIFA to Flood Resilience: Doha's Sustainable Transformation • Bulgari Ocean Mansions: Redefining Luxury and Sustainability on Jumeirah Bay Island • Khatib & Alami Leads the Way in Digital Services Excellence



A NOTE FROM OUR CHAIRMAN AND CEO



As we stand at the threshold of a promising new chapter, energised by the achievements of our 60th anniversary, we are driven by a singular vision: to create transformative, innovative, and sustainable impact in the years to come. With the latest technologies within our reach and our unwavering commitment to progress, we are thrilled about the opportunities ahead in 2025 and beyond.

The past year has been nothing short of extraordinary. Climbing from #36 to #31 in the ENR rankings of the Top 225 International Design Firms and securing our position among the Top 5 in the Middle East highlight the trust we've built with our clients. This recognition is a testament to Khatib & Alami's (K&A) diverse portfolio of 500+ completed projects across MENA, East Africa, and West Africa, as well as the dedication of our team, who continue to deliver excellence amid complex challenges.

Innovation is at the core of K&A's success, and its impact is most evident in the transformative integration of advanced technologies into our Architecture and Engineering services. By leveraging Building Information Modeling (BIM), Geographic Information Systems (GIS), Artificial Intelligence (AI), Machine Learning (ML), and the Internet of Things (IoT), we have elevated our ability to analyse, design, and visualise projects with unmatched accuracy across the entire process of services we provide. The seamless

collaboration between our Digital Services, Architecture, and Engineering teams ensures we consistently deliver forward-thinking solutions to our clients, utilising the latest IT tools and services.

2024 was a year of significant achievements, some of which are based on our long and dedicated history of always using the latest technological advancements. Our Urban Landbank project in Oman was honoured as Digital Project of the Year at the Construction Technology Awards, recognising our use of Airborne LiDAR, Aerial Photography, and AI to achieve unprecedented accuracy over 760 km². Meanwhile, our pioneering work on Grand Hyatt The Red Sea (Central Hotel #1) at Shura Island earned the Design Innovation in Building award at the Autodesk Imagine Awards. Our team transformed data flow and digital delivery by integrating robust BIM systems and ensuring effective coordination among 20+ stakeholders, an impressive number of dependencies and interdependencies.

Building on this momentum, K&A has earned prestigious recognition from Esri and Schneider Electric. We received the Implementation Partner Award at the Esri Infrastructure Management & GIS Conference for the second consecutive year. Furthermore, K&A became the first Schneider Electric Certified Smart Grid EcoXpert partner in the Middle East, underscoring our expertise in smart grid solutions. Both accolades are a partial testament to the credibility and value added that the K&A teams contribute to.

Sustainability at various levels remains a core focus in all our projects. The Bulgari Ocean Mansions in the UAE are evidence of this vision, with their sustainable design, green spaces, and energy-efficient features earning multiple awards,

including the ENR Global Best Project in Residential/Hospitality. The Al-Thumama Surface & Ground Water Networks Project in Qatar further reflects our focus on sustainable infrastructure. Recognised as the MEED Projects Awards' national winner for the Water Transmission Project of the Year, the project utilises smart technologies to enhance flood prevention and ensure long-term community benefits.

As we step into 2025, we are looking forward to the opportunities ahead. With a strong foundation and a commitment to leveraging emerging technologies, we remain focused on driving innovation and excellence. This newsletter highlights our ongoing efforts, from transforming operations for the Transmission Company of Nigeria with GIS technology to revolutionising Saudi Arabia's real estate sector and delivering impactful projects such as the Hessa Street Improvement Project with Dubai's Roads & Transport Authority.

While it is impossible to list all projects in this Foreword, we want to recognise the visionary ideas our clients have pursued through rigorous study and design until completion. Their efforts and commitment are truly commendable, and at K&A, we take immense pride in partnering with them every step of the way.

Thank you for your continued support and the time you've taken to read about K&A's recent achievements. Together, we will build upon our shared success and drive innovation and progress into the future.

Najib Khatib, Ph.D.
Chairman & CEO

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AUTODESK IMAGINE AWARDS | INDIA

BANGALORE DESIGN CENTER WINS FIRST AWARD IN INDIA AT AUTODESK IMAGINE AWARDS

Khatib & Alami (K&A) has achieved a significant milestone with its first award in India, as the Bangalore Design Center was honored with the Design Innovation in Building award at the Autodesk Imagine Awards 2024. 🏆



The award recognizes the team's exceptional work on the Grand Hyatt The Red Sea (Central Hotel #1) at Shura Island. The Bangalore Design Center, a growing hub within K&A, has demonstrated remarkable potential by taking on some of the company's most critical projects, including this innovative hotel development in collaboration with Red Sea Global. As the executive architect, K&A's team transformed the approach to data flow and digital delivery, ensuring seamless integration of advanced engineering and architectural solutions.



Achieving coordinated design

coordination has been instrumental in preventing construction challenges. By leveraging digital technology and innovation, our collaboration with Red Sea Global has redefined the boundaries of design and construction. We are incredibly proud of the innovative solutions we have developed together."

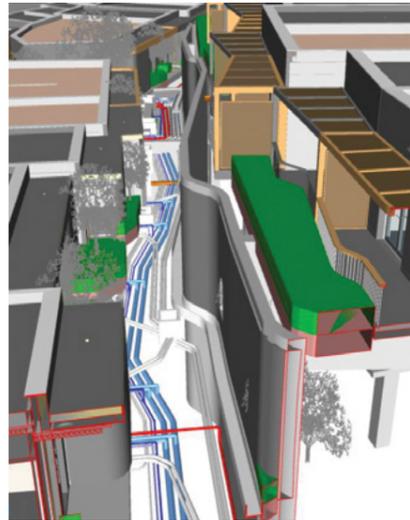
The Shura Island Central Hotel #1 is a dynamic development that accommodates a 430-key hotel, high-end F&B and retail, and more, all while balancing cost, efficiency, and functionality. K&A's two-year coordination and close collaboration among over 20 stakeholders have been critical to the project's success.



Hadi ElHmayssi, Executive Director - Architecture, Red Sea Global, commented: "The collaboration between RSG and K&A design and BIM team is a testament to the power of innovative technology in shaping the future of construction and design. Utilizing advanced tools like BIM 360, 3D Visualization Dashboards, and Revit, the team created a unique destination that promises to be a jewel in the crown of Saudi Arabia's Vision 2030. This project not only showcases the potential of

digital collaboration in realizing complex architectural endeavors, but also sets a new standard for sustainable and efficient design practices in the region."

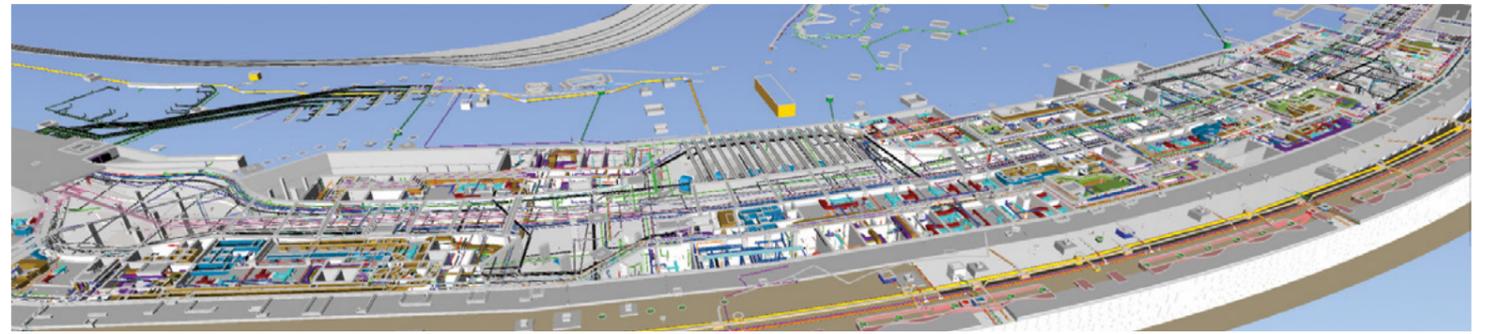
This recognition highlights the Bangalore Design Center's growing expertise and sets the stage for future innovations in architectural design and project delivery. K&A looks forward to continuing its journey of excellence and creating more groundbreaking projects in the years to come. ■



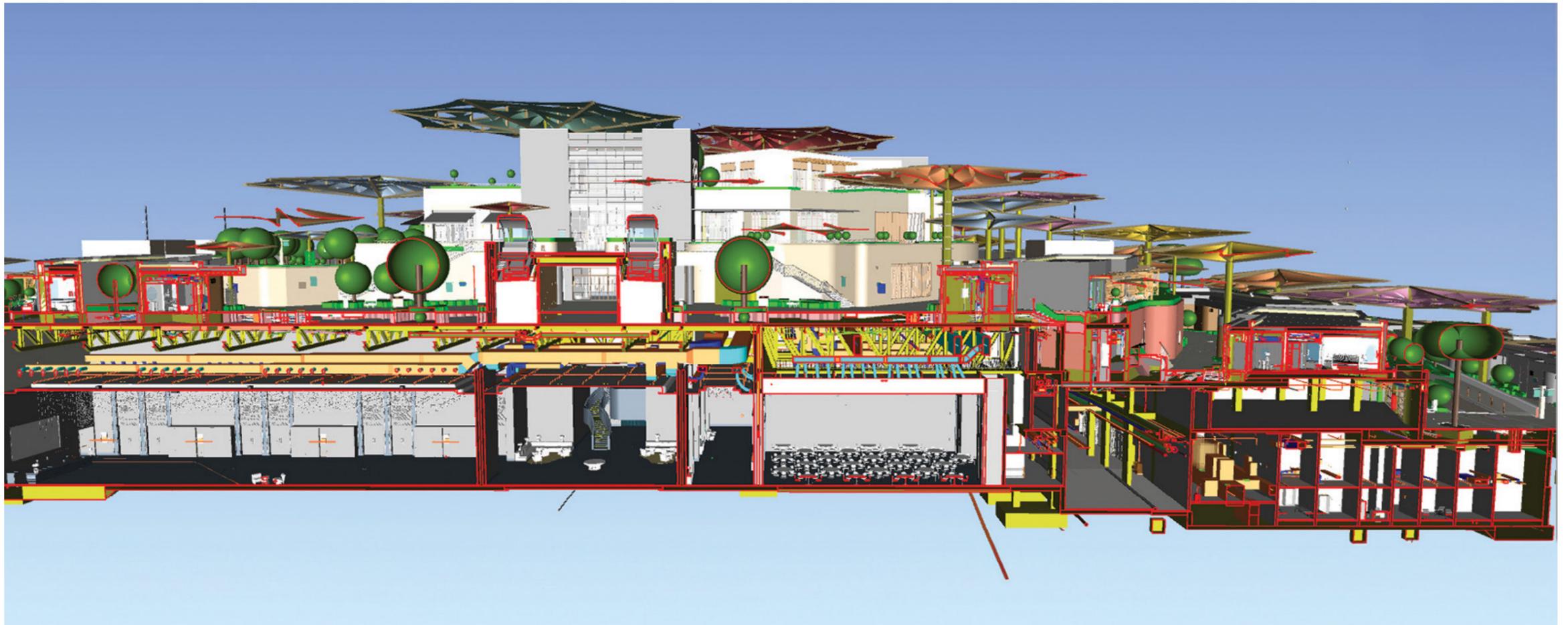
MEP underground services

The 110,000m² asset has some unique and challenging features, such as a 250m-wide and 25m-high spiraling mound, an 800m underwater tunnel, and two inclined railways (funiculars), along with the need for innovative MEP solutions due to staggered room layouts. By leveraging Autodesk BIM360, Revit, Civil 3D, Navisworks, and ArcGIS, the team facilitated meticulous material evaluation and optimization processes, resulting in fully coordinated design models and enhanced project delivery timelines.

Reflecting on this achievement, Vijaya Venkata, Associate Principal - BIM & Digital Design, said: "This award reflects the dedication and creativity of our exceptional Bangalore team, whose precision in design



3D sectional view



Canopies and orientations

EXPERTS SHARE INSIGHTS AND INNOVATION AT AUTODESK UNIVERSITY 2024

Khatib & Alami (K&A) had a strong presence at Autodesk University (AU) 2024, the premier Design & Make Conference, held from 15 to 17 October in San Diego. Two of K&A's distinguished experts delivered impactful sessions, showcasing the company's leadership in digital transformation and innovation within the AEC industry.

Mohyeddine Al-Khatib, Manager - Digital Products, presented "Breaking Down Barriers: A BIM-to-GIS Workflow Toward an Integrated City Model," which explored innovative strategies for integrating Building Information Modeling (BIM) with Geographic Information System (GIS). His session emphasized optimized workflows and the potential for seamless data interoperability in urban design.

Reflecting on his experience, Mohyeddine Al-Khatib shared: "Autodesk University provided a valuable platform to showcase K&A's vision for advancing digital transformation in city information management through BIM and GIS integration and digital applications built on top of this integration. The engagement and interest from attendees reaffirmed the importance of collaborative approaches to unlocking new opportunities in urban planning, design, and management. It was a privilege to be able to present to industry leaders who attended AU, and be part of a meaningful discussion highlighting the transformative potential of innovative workflows in our field."

Khaled Mahmoud, BIM Audit Manager, also delivered a session titled "Digital Delivery of Large-Scale Projects: The Impact of Efficient BIM Integration with Project Management." His presentation



offered practical insights on overcoming design challenges, improving efficiency, and mitigating risks through the integration of BIM and project management systems.

Khaled Mahmoud highlighted K&A's progress in digital design and project management: "It was an honor to present twice at Autodesk University, discussing how BIM is revolutionizing project management and digital delivery for large-scale projects. Sharing K&A's innovative



approaches and success stories reflects our steadfast commitment to advancing the industry. From enhancing workflows to pioneering tools that streamline project delivery, K&A is setting new standards in the AEC sector."

In addition to the scheduled presentations, K&A's participation stood out with the introduction of the Clash Box Tool, an innovative in-house solution by Hussein Rida, Principal - BIM and Digital Design. This tool, designed to streamline clash detection and resolution in BIM workflows, garnered significant attention and was widely praised as a transformative development for the industry.

K&A's sessions collectively attracted over 250 participants, underlining the growing importance of digital transformation and advanced technologies in addressing the complexities of AEC projects. From optimizing workflows to leveraging technology for large-scale projects, our experts demonstrated leadership in shaping the future of design and project management. ■

LIGHT RAIL TRANSIT REVOLUTIONIZES TRANSPORTATION IN CAIRO

Since its inauguration three years ago, the Cairo Light Rail Transit (LRT) has emerged as a groundbreaking development in Egypt's transportation infrastructure. It has significantly enhanced connectivity between Cairo and the rapidly growing cities in the Eastern Capital region, including the New Administrative Capital and the 10th of Ramadan City. Designed to support urban growth, reduce transportation bottlenecks, and stimulate economic development, the LRT is transforming how residents move across the region. ■



A GAME-CHANGER FOR URBAN MOBILITY

The LRT has quickly established itself as the primary mode of transportation for residents in Eastern Cairo. Its efficient mass transit lines seamlessly connect city streets to train stations while integrating with the third metro line. This has encouraged many commuters to shift from private vehicles and less efficient transportation methods to a more sustainable and cost-effective combination of the metro and the LRT.

This shift has resulted in substantial benefits, including significant time and cost savings for daily commuters and a marked reduction in traffic congestion on major routes to and from Cairo. By offering a reliable, comfortable, and efficient alternative, the LRT is improving the overall transportation network's functionality and solidifying itself as the preferred choice for urban transit.

FUTURE EXPANSIONS: A MULTIMODAL VISION

The LRT is set to become the cornerstone of a comprehensive multimodal transit network. Upcoming expansions in the fourth and fifth phases will extend its reach even further. The fourth phase will connect the LRT to northern communities, benefiting large populations in the 10th of Ramadan City. The fifth phase will complete the link to the industrial zone in the New Administrative Capital, further enhancing connectivity for businesses and residents alike.

"The LRT is taking the lead in the transportation industry in Egypt, a testament to Khatib & Alami's success and commitment to serving the wider community," said Hany Samir, Senior Site Project Manager. "The integration of the LRT with the metro and its future connections to other major transit systems, like the monorail and high-speed rail,



"THE LRT IS TAKING THE LEAD IN THE TRANSPORTATION INDUSTRY IN EGYPT, A TESTAMENT TO KHATIB & ALAMI'S SUCCESS AND COMMITMENT TO SERVING THE WIDER COMMUNITY."

Hany Samir,
Senior Site Project Manager

enhances its role in reshaping urban mobility in Cairo, making public transport a more attractive option for many residents."

SEAMLESS CONNECTIVITY ACROSS SYSTEMS

At its core, the LRT is designed to integrate multiple transportation models, creating a seamless travel experience. Key connections include:

- Adly Mansour Station: Links the LRT with the third metro



line, Super Jet bus station, and the Cairo-Suez railway.

- Arts and Culture Station: Connects the LRT with the monorail.
- Central Capital Station: Integrates with the high-speed electric train.

As these integrations expand, the LRT will further support Egypt's vision for a smart, interconnected, and sustainable urban transportation ecosystem.

PAVING THE WAY FOR SUSTAINABLE URBAN GROWTH

The Cairo LRT exemplifies the transformative power of advanced transit systems in reshaping urban mobility within the Architecture, Engineering, and Construction (AEC) sector. It stands as a model for infrastructure that not only addresses current transportation challenges but also fosters sustainable urban

development. As Cairo's population grows and its urban areas expand, the LRT's continued evolution will play a pivotal role in meeting the city's growing transportation needs. With ongoing expansions and integrations, the LRT is set to lead Egypt's efforts in advancing public transit, supporting economic growth, and contributing to smarter, more sustainable infrastructure development.



COMPREHENSIVE METRO RAIL TRANSPORTATION COURSE WITH THE EGYPTIAN NATIONAL INSTITUTE FOR TRANSPORT



Khatib & Alami (K&A) was a contributing partner in the Comprehensive Course on Metro Rail Transportation, Design, and Construction at the Egyptian National Institute for Transport (ENIT). This joint initiative brought together industry leaders to provide engineers with specialized, hands-on training, fostering regional infrastructure development.

The course featured three sessions led by K&A experts, scheduled for November 17, 2024, and the final session

on December 30, 2024. These lectures covered essential topics such as Risk Management, Quality Control and Quality Assurance, and the Design Basis of Steel Structures, equipping participants with practical insights and advanced metro rail design and construction tools.

"We're honored to contribute to this initiative," said Senior Site Project Manager, Hany Samir. "It allows us to equip regional engineers with essential skills for advancing infrastructure development. This program reaffirms our commitment to fostering innovation and supporting the next generation of transportation experts in creating resilient, future-ready transit systems." ■



WASTEWATER TREATMENT PLANT | EGYPT

NEW DELTA WASTEWATER TREATMENT PLANT: NOW A FOUR-TIME GUINNESS WORLD RECORD TITLE HOLDER

The New Delta Wastewater Treatment Plant has officially received four Guinness World Records certificates in a ceremony attended by prominent government officials. Khatib & Alami (K&A) was also honored with a prestigious award from the Egyptian Armed Forces Engineering Authority for outstanding contributions to this project.

The New Delta Wastewater Treatment Plant boasts a remarkable production capacity of 7.5 million m³/day of agricultural drainage water, playing a crucial role in reclaiming and developing 2 million acres in the western Delta region. It is one of the world's largest sustainability projects, featuring the largest water treatment facility at 320,000 m², an operational capacity of 86.8 m³/second, and the largest epoxy coating in a building at 520,000 m².

Additionally, the plant incorporates cutting-edge technologies to maximize sustainability and support

Egypt's irrigation system, such as the largest sludge treatment plant with a capacity of 670.01 kg/second.

Ashraf Ayoub, Senior Manager - Supervision, Egypt, commented: "These awards represent the culmination of the dedicated efforts of the Armed Forces Engineering Authority, K&A, and the contractors' joint venture, whose combined expertise and commitment brought this groundbreaking project to life. The plant's successful design,



implementation, and operation mark a significant milestone in advancing Egypt's irrigation infrastructure, aligning with the 2030 National Agenda and UN Sustainable Development Goals."

By maximizing wastewater treatment and reuse, the New Delta Wastewater Treatment Plant will contribute to water conservation efforts, support agriculture, and address water scarcity in the region. ■

FEATURE | URBAN PLANNING AND DESIGN

BUILDING BEYOND BORDERS: THE GROWTH AND GLOBAL IMPACT OF K&A'S BANGALORE URBAN PLANNING AND DESIGN TEAM

From a small team of four in 2017 focused on ambitious city planning projects, the Urban Planning and Design Department at the Bangalore Design Center has evolved into a powerhouse of 26 professionals. The team now delivers transformative projects across the UAE, Saudi Arabia, Zimbabwe, and beyond.

Mumbai Pune Development Corridor Project

In this Q&A, Khatib & Alami's senior leadership reflect on the department's remarkable growth, key milestones, and innovations driving its success. Their insights shed light on how collaboration, inclusiveness, and forward-thinking approaches have positioned the Bangalore team as a cornerstone of K&A's global project delivery.

We extend our thanks to Edgar Mourad, Senior Director - City & Regional Planning, K&A Lebanon (Beirut); Rajesh Kalra, Senior Director, K&A India (Bangalore); and Vidya Murali, Associate Principal - Urban Planning & Design, K&A India (Bangalore), for sharing their perspectives and expertise.



EDGAR MOURAD



VIDYA MURALI



RAJESH KALRA

1. What inspired the establishment of the Urban Planning and Design Department at the Bangalore Design Center, and how has the journey unfolded since 2017?

Edgar Mourad: In July 2017, Khatib & Alami (K&A) was relocating to its new offices in Bangalore. Unexpectedly, I found myself amidst a joyful opening ceremony and traditional rituals, a moment that wasn't planned but felt like a sign of a new beginning. After spending a few days in Bangalore, I left, having established the first nucleus team of planners, with Vidya, one of the key team members assigned to take the lead.

At the time, the goal was to assemble a complementary team of planners with the right exposure and skill sets to

address city planning projects. The primary focus was on the Oman Regional Spatial Strategies, along with other initiatives in the pipeline. The Mumbai Pune Development Corridor was not on the horizon then, yet it emerged just a few weeks later. Since those early days, the team has grown steadily, thanks to Vidya and Rajesh's continuous support.

Vidya Murali: Over the years, the team expanded its capabilities and functions slowly but steadily. From the very beginning, the team undertook complete proposal management for tenders in India, Oman, and the UAE. In 2020, the team welcomed specialists such as 3D visualizers and graphic designers and, with the addition of more urban designers, ■

the Urban Planning and Design team at the Bangalore Design Center intensified their support for larger and more numerous projects in the UAE.

Over a period of time, the team has evolved into an integral part of the Sharjah Design Center, collaborating across the full project life cycle—from conceptual to detailed master plans and authority approvals—on significant projects for clients like Q Holdings, Aldar, NEOM and Royal Development Company.

With a current team of 26, the Urban Planning and Design team has solidified its role as a cornerstone of K&A's success.

2. The team has delivered impactful projects for high-profile clients. What do you attribute this success to?

Edgar Mourad: Beyond their skill sets and discipline, the team's success can be attributed to their agility. They have worked seamlessly with diverse teams from various cultural and professional backgrounds, participating in project missions abroad—whether in the United Arab Emirates, Oman, Saudi Arabia, Africa, or other regions where K&A operates. Their contributions spanned global projects, collaborating closely with other design centers and international partners. The Urban Planning and Design Department in Bangalore is perhaps one of the most well-exposed teams in the firm, having jointly delivered numerous projects alongside other design centers.

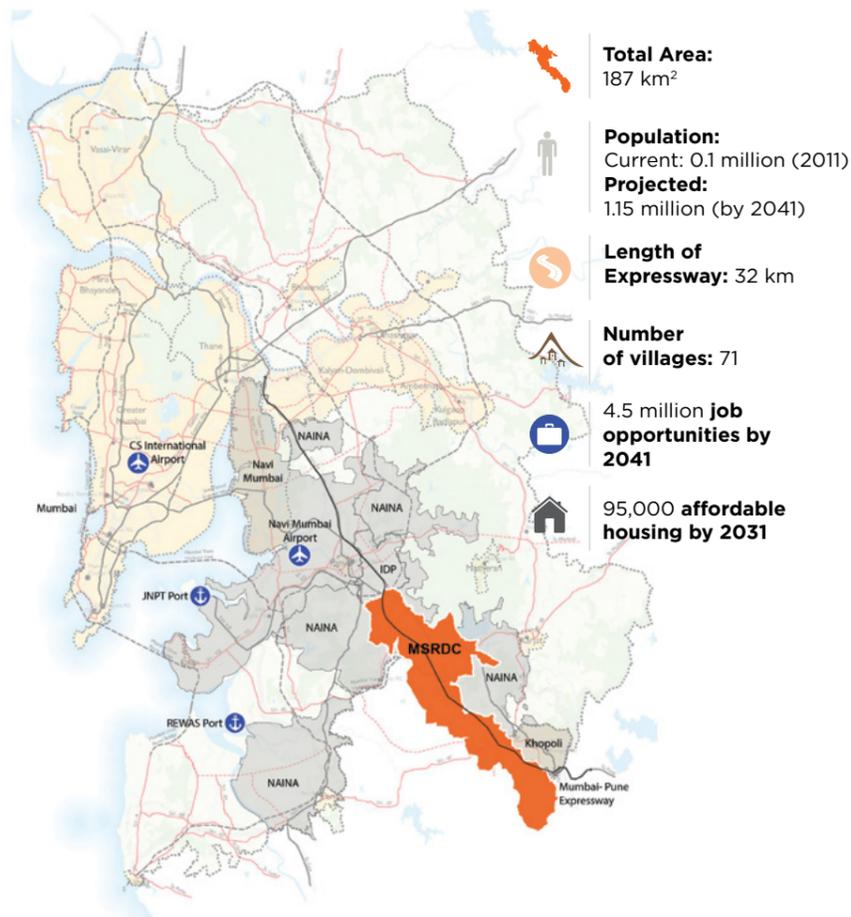
Rajesh Kalra: The team's versatility comes from its diverse capabilities under one roof— from project to proposal management, city and site planning, GIS expertise, graphic design, and high-quality Computer-Generated Imagery production. They have consistently demonstrated their proficiency in managing complex, large-scale projects across geographies like Oman, UAE, Saudi Arabia, Kuwait, and



Zimbabwe, all while delivering under tight deadlines. At Bangalore Design Center, leadership fosters a growth-oriented, employee-friendly work culture, nurturing talent and promoting a vibrant, multidisciplinary environment that drives success.

Vidya Murali: One of the team's core strengths is its exceptional GIS expertise, which has been utilized extensively and innovatively for spatial analysis. For example, GIS-enabled

the collection and analysis of substantial built environment data for the Dhahran Area Master Plan (60 sq. km) and detailed land use and land cover data for the Mumbai Pune Development Corridor Project (187 sq. km). The application of GIS in the Oman Regional Spatial Strategies, covering four governorates, integrated multidisciplinary data— facilitating visualization and decision-making at a regional scale.



3. How have the department's values of collaboration and innovation contributed to addressing complex urban challenges?

Rajesh Kalra: The unique feature of the team stems from its carefully selected members, handpicked from top institutes across the country, bringing diverse expertise while working seamlessly as a cohesive unit. They have formed a highly effective team by maximizing their potential and complementing each other's skills.

A key initiative at the Bangalore Design Center to improve efficiency has been the creation of an Efficiency Enabler group within the Urban Planning and Design team. This group focuses on identifying scripts, automation tools, and other innovative methods to streamline workflows. As a result, the team has significantly decreased the turnaround time for repetitive tasks and successfully delivered on tight deadlines.

Edgar Mourad: An exemplary project that best demonstrates the team's capabilities is the Preparation of Development Strategies for 71 Villages along the Mumbai Pune Expressway, completed for the Maharashtra State Road Development Corporation in 2018-2019.

This was the very first project undertaken by the newly formed Urban Planning team at Bangalore Design Center. The project's success can be attributed to effective

interdisciplinary coordination and cross-functional collaboration within K&A and with external partners. My involvement was limited to high-level project management, while the Bangalore team expertly handled all aspects of the project, delivering exceptional results under challenging timelines.

Vidya Murali: To tackle the project, the team developed an innovative and complex multi-criterion methodology for land suitability analysis using GIS. This methodology served as the foundation for the proposed land use zoning and development strategies. Additionally, the team collaborated with demographers, economists, traffic experts, infrastructure engineers, and other professionals, both within and outside K&A. Stakeholder consultations were also conducted with government agencies and the public at large. The final development plan fostered inclusivity, delivered sustainable and resilient solutions, and was approved by the Ministry of Urban Development, Government of Maharashtra, becoming a statutory document that governs future development for the project area.

The team is now exploring the integration of AI to analyze complex data and enhance deliverable production. Automation has already been successfully implemented in areas such as development

control regulation sheets management, traffic simulations, 3D visualizations, graphics, and report compilation. These advancements, combined with the team's cognitive problem-solving capabilities, have made the delivery of large-scale projects more efficient and manageable.

4. Looking to the future, what is your vision for the Urban Planning and Design Department, and how do you see its role evolving within Khatib & Alami?

Rajesh Kalra: With the capability to handle proposals in their entirety, the Urban Planning Team at Bangalore Design Center has consistently been part of project-winning teams in Oman and the UAE. With proven expertise in project execution, the team is well-poised to take on a larger volume of business across geographies and play a pivotal role in shaping the company's future growth. The vision of the Urban Planning Department is to become a center of excellence for executing urban planning and design projects within K&A and beyond.

Edgar Mourad: The Urban Planning Department in Bangalore Design Center has, over the past seven years, become an essential part of K&A's global urban planning and design activities, thanks to the team's steady growth in capabilities and a selective recruitment approach. This continuous growth is being achieved in a consolidated manner, leveraging technological advancements and K&A's rich global network.

Despite its relatively small scale, the team's importance lies in its confirmed role as a synergetic coordinator between various engineering and design services. The ultimate goal is to evolve into a substantial, self-sufficient planning and design entity, contributing to the full industry life cycle— from business development and proposal preparation to project management and delivery. ■



Bangalore Urban Planning and Design team

FROM FIFA TO FLOOD RESILIENCE: DOHA'S SUSTAINABLE TRANSFORMATION



Climate change poses unprecedented challenges for urban centers worldwide, with extreme weather events like flooding becoming more frequent and severe. The United Nations Sustainable Development Goals (UN SDGs) emphasize the urgent need for climate action and resilient infrastructure to ensure sustainable urban living.

In this context, flood resiliency has become a critical focus, particularly in rapidly urbanizing cities vulnerable to climate risks. Qatar exemplifies proactive innovation, as highlighted by the groundbreaking Al-Thumama Surface & Ground Water Networks project—a significant step forward in addressing the intertwined challenges of climate change and urban sustainability.

AL-THUMAMA: A BLUEPRINT FOR FLOOD-RESILIENT CITIES

The Al-Thumama Surface & Ground Water Networks project in Qatar, spearheaded by the Drainage Network Projects Department of the Public Works Authority (PWA), has garnered national recognition for its innovative approach to flood resiliency. Recently named the National Winner in the Water Transmission Project of the Year

category at the MEED Projects Awards, the project underscores Qatar's commitment to sustainable urban development and climate adaptation.

Initially conceived as part of the FIFA Readiness Project, the collaboration between Khatib & Alami (K&A) and PWA sought to prepare Qatar's infrastructure for the 2022 FIFA World Cup. However, the devastating floods in 2018 highlighted the urgent need for a comprehensive flood mitigation strategy. The project's scope expanded beyond FIFA-related goals, aiming to enhance Doha's flood resilience and protect its rapidly growing urban population.

Project Manager, Sherief Hanafy, stated: "K&A's role was instrumental in designing and implementing a comprehensive flood mitigation strategy. This included installing strategically placed storm and gully drains to manage heavy rainwater runoff, prevent flooding in critical areas, and protect key infrastructure."

SMART TECHNOLOGIES POWER QATAR'S FLOOD MITIGATION EFFORTS

The project aligns with sustainability goals by integrating green infrastructure solutions, such as soakaways and geotextiles, to improve water infiltration, enhance

groundwater recharge, and reduce surface water pollution. Smart technologies, including advanced flow control valves and real-time data collection systems, were implemented to monitor and optimize drainage performance during heavy rainfall. "These innovations allowed authorities to monitor and manage the drainage system more effectively, ensuring optimal performance during heavy rainfall events and enabling swift responses to potential issues," Hanafy added.

Moreover, K&A utilized Building Information Modeling (BIM) and Geographic Information System (GIS) to streamline project management and operational efficiency, ensuring adaptability and providing actionable insights throughout the project lifecycle.

Vice President for Qatar, Alex Hanna, commented: "The Al-Thumama Surface & Ground Water Networks project is more than a response to a global sporting event—it's a testament to Qatar's commitment to long-term environmental resilience. This project underscores the lasting impact of K&A's innovative design and engineering solutions, ensuring that Doha remains flood-resilient and better equipped to handle future challenges." ■

MAJOR MILESTONE WITH RTA: AL KHAIL RAMP OPENS AHEAD OF SCHEDULE

The Hessa Street Improvement Project has achieved a major milestone, with the Al Khail Ramp opening to traffic an impressive three months ahead of schedule.

As K&A's most impactful project with Dubai's Roads and Transport Authority (RTA) to date, this achievement marks the completion of the first of four bridges in an ambitious 30-month contract, with three more bridges to follow.

Spanning 4.5 kilometers from Sheikh Zayed Road to Al Khail Road, the project exemplifies Dubai's commitment to building world-class infrastructure that supports the city's rapid growth. The improvements will double the lane capacity of Hessa Street, increasing the number of lanes from two to four in each direction and boosting road capacity from 4,000 to 8,000 vehicles per hour.

The project also includes extensive enhancements designed to meet the needs of Dubai's residents and businesses. Four bridges and a tunnel extension spanning 2,874 meters will accommodate up to 17,600 vehicles per hour. Over 7 kilometers of road upgrades and surface intersection improvements will ensure smoother traffic flow.

A 3.5-kilometer cycle track will connect Al Sufouh to Dubai Hills, creating a safe and efficient route for bicycles and e-scooters. Two uniquely designed cycle and pedestrian bridges will soon cross Sheikh Zayed Road and Al Khail Road, as part of a broader vision to transform Dubai into a bike-friendly city.

In addition, the project incorporates advanced street lighting, traffic signals, traffic management systems, a rainwater drainage network, landscaped areas, rest zones, mobility hubs for cyclists and pedestrians, and an irrigation system—each designed to enhance functionality and sustainability and foster a more livable urban environment.

This initiative addresses critical utility diversion and protection works, alleviates traffic congestion, and improves travel times, supporting Dubai's rapidly growing population and economy.

The early completion of the Al Khail Ramp is a testament to the expertise and commitment of the K&A team, which consistently delivers excellence under challenging deadlines. As the Hessa Street Improvement Project progresses, it will continue to elevate Dubai's transportation infrastructure, driving the city's growth and development. ■





HEALTH AND SAFETY

CELEBRATING HSE EXCELLENCE ACROSS K&A PROJECTS

Our steadfast commitment to the highest safety standards continues to ensure the well-being of our teams, stakeholders, and the communities we serve. By prioritizing HSE practices across all aspects of our operations, Khatib & Alami (K&A) leads the way in creating safe, sustainable, and resilient environments.

The last quarter has been particularly remarkable, as K&A has made impressive progress in multiple sectors across the UAE. From completing essential HSE safety training to implementing cutting-edge HSE initiatives, K&A has been at the forefront of setting industry standards. Here are a few highlights of our latest HSE achievements:

K&A RECEIVES PRESTIGIOUS HSE AWARD FROM DUBAI SOUTH

K&A has been honored with a distinguished HSE award from Dubai South, a recognition announced at a celebratory ceremony attended by His Excellency Khalifa Al Zaffin, along with the Dubai South and Dubai Aviation City Corporation Management teams. This accolade underscores our



leadership in maintaining exemplary HSE standards in the region, as highlighted in our participation in the HSE Excellence in Fire & Life Safety campaign held between June and July 2024.

K&A ACHIEVES 10 MILLION SAFE MAN-HOURS WITHOUT LTI

Another significant achievement came when the K&A team celebrated a major milestone of reaching 10 million safe man-hours without a Lost Time Injury (LTI) on the Peninsula Project in Business Bay, Dubai. This remarkable accomplishment, recognized by our client, Select Group, with an appreciation award certificate, underscores the safety culture we have nurtured at K&A and our commitment to delivering projects with the highest levels

of safety and operational excellence.

Nik Rowley, Director of Quality, Health, Safety & Environment (Group) Operational Excellence, congratulated the teams for their outstanding contributions: "Heartfelt congratulations to our project teams for their remarkable achievements. Your unwavering dedication and exceptional efforts have set a new standard of excellence, inspiring us all to prioritize health, safety, and operational excellence in everything we do."

As K&A continues to grow and evolve, our commitment to HSE excellence remains at the core of all our projects. We are proud of the milestones we've achieved and are excited for the future as we continue to lead the industry with sustainable and safe infrastructure solutions. ■

RESIDENTIAL | UAE

BULGARI OCEAN MANSIONS: REDEFINING LUXURY AND SUSTAINABILITY ON JUMEIRAH BAY ISLAND

The Bulgari Ocean Mansions, situated on the exclusive Jumeirah Bay Island in the UAE, have emerged as a global benchmark for innovation and design. Recently named MENA's Best Development Project of the Year at the MEED Projects Awards, the project has also earned prestigious honors such as the ENR Global Best Project in Residential/Hospitality and Construction Week Middle East Residential Project of the Year. ■





Designed by the renowned architectural firm Antonio Citterio Patricia Viel, in collaboration with Khatib & Alami (K&A), the Bulgari Ocean Mansions offer an exclusive living experience. Nestled between land and sea, the mansions feature lush Mediterranean-style gardens on one side and appear to float above the ocean on the other, providing residents with an unparalleled connection to the island's pristine natural surroundings.

SUSTAINABILITY AT THE CORE

The development prioritizes sustainability through green spaces, eco-friendly materials, and landscaping that promotes biodiversity. Villa layouts are designed to maximize natural light and ocean views, creating bright, airy interiors that seamlessly integrate with the environment. Aligned with Dubai's Green Building Regulations, the project emphasizes energy efficiency, water conservation, and climate-responsive architecture. An airtight, insulated envelope reduces heat gain and mitigates the urban heat island effect. Smart IoT technology enhances the living environment by monitoring air quality, humidity,



noise, and temperature, ensuring residents' comfort and well-being.

OVERCOMING ENGINEERING CHALLENGES

The Bulgari Ocean Mansions posed significant engineering challenges, primarily due to their location on a revetment which required close collaboration with marine consultants, innovative piling techniques, and advanced simulation modeling. Building from the waterside using barges added logistical complexities, but K&A's strategic use of Building Information Modeling (BIM) technology played a key role in overcoming these hurdles.

To overcome the challenge of casting the ground slab over water, K&A devised an innovative engineering solution utilizing a specialized formwork where the main steel frame was securely welded to the steel casing of the piles. A 3D physical model, combined with numerical modeling, was also created to evaluate the stability and performance of the proposed revetment armor, wave uplift pressure on the deck soffit, wave overtopping, and water pressure on the piles. Additionally, the ground slab was constructed in two stages, using the lower part as shuttering. This method enabled the project's piles—constructed on revetment armor and in water—to be designed to

withstand gravity loads, seismic and wind forces, wave impacts, and reaction forces from the revetment.

A BENCHMARK FOR FUTURE DEVELOPMENTS

The Bulgari Ocean View Mansions are more than just a luxury project; they set a precedent for sustainability and engineering excellence. By adhering to the highest environmental standards and leveraging cutting-edge engineering solutions, the project has set a new benchmark for future developments while contributing to Jumeirah Bay Island's long-term sustainability and ecological health. ■



ENERGY & UTILITIES | NIGERIA

REVOLUTIONIZING NIGERIA'S UTILITIES SECTOR: KHATIB & ALAMI LEADS GIS INNOVATION FOR TCN

Khatib & Alami (K&A) has secured its second major project in Nigeria, partnering with Sibus Geospatial to transform the operations of the Transmission Company of Nigeria (TCN) through advanced Geographic Information System (GIS) technology. This new venture builds upon K&A's successful collaboration with the EKO Electricity Distribution Company (EKEDP), completed between 2015 and 2018, marking a significant step toward modernizing Nigeria's power infrastructure.

This ambitious project, part of TCN's larger Information Systems initiative, aligns with the client's vision of improving

data accessibility, enhancing decision-making, and increasing operational efficiency. K&A will design and develop a robust GIS data model, and configure, test, and deploy customized GIS solutions to address TCN's operational needs.

DELIVERING TAILORED GIS SOLUTIONS FOR TCN

K&A's efforts in this project emphasize the creation of a comprehensive GIS solution that integrates the latest Esri Utility Network (UN) management technology and ArcFM XI. This technology enables advanced asset management, operational monitoring, and strategic planning for TCN. Alongside system development, K&A will

"THIS INITIATIVE HAS STRENGTHENED OUR COLLABORATION WITH SIBUS GEOSPATIAL, TECH MAHINDRA, AND TCN, REINFORCING K&A'S ROLE AS A LEADING GEOSPATIAL SYSTEMS INTEGRATOR AND ESRI PLATINUM PARTNER."

Hassan El Hajj,
Project Manager

provide capacity-building programs through intensive training workshops. These initiatives aim to empower TCN's teams with the skills and knowledge required to operate and maintain the GIS system independently.

The project also incorporates the procurement of GIS software and licenses and ongoing maintenance and support, ensuring sustainable operations and continuous improvement. Speaking on the project's impact, Safaa Issa, Senior Manager of Delivery, said: "We are deeply committed to harnessing the power of GIS technology to enhance TCN's operations. By enabling advanced management,

analysis, and visualization of geographic and network data, this project will streamline processes and empower TCN to make more informed strategic decisions."

TRANSFORMING OPERATIONS THROUGH GIS INNOVATION

The implementation of GIS technology is set to revolutionize TCN's operational framework. By utilizing a centralized digital platform, TCN will maintain a precise inventory of transmission lines and substations, enhancing its asset tracking and monitoring capabilities. GIS-based spatial visualization will improve planning processes, optimize resource allocation, and ensure network reliability by highlighting critical areas requiring immediate attention.



The integration of real-time data from sensors or SCADA systems will further enhance TCN's situational awareness, enabling the company to anticipate disruptions, perform risk assessments, and respond swiftly to emerging challenges. Additionally, GIS facilitates cross-departmental collaboration by providing stakeholders with a unified, up-to-date view of information, ensuring efficient communication and seamless operations.

This innovative approach not only addresses TCN's immediate operational needs but also sets a precedent for other utilities in the region, showcasing the transformative potential of GIS in Africa's utilities sector.



EMPOWERING TCN THROUGH GIS TRAINING AND COLLABORATION

As part of its comprehensive service delivery, K&A completed a series of intensive training workshops for TCN. These sessions, attended by engineers, GIS specialists, operations teams, project managers, IT staff, and senior management, focused on the practical application of GIS technology in network planning, asset management, maintenance, and risk analysis.

"WE ARE DEEPLY COMMITTED TO HARNESSING THE POWER OF GIS TECHNOLOGY TO ENHANCE TCN'S OPERATIONS."

Safaa Issa,
Senior Manager of Delivery

The hands-on training initiative underscores K&A's commitment to empowering its clients with the tools and expertise required to optimize their operations. Reflecting on this collaboration, Project Manager Hassan El Hajj highlighted the importance of partnerships in delivering impactful solutions, stating: "This initiative has strengthened our collaboration with Sibus Geospatial, Tech Mahindra, and TCN, reinforcing K&A's role as a

leading Geospatial Systems Integrator and Esri Platinum Partner. Our work with TCN highlights our dedication to driving digital transformation across the African utility sector."

SHAPING THE FUTURE OF NIGERIA'S ELECTRIC POWER TRANSMISSION

This project for TCN underscores the transformative role of GIS technology in enhancing infrastructure reliability and operational efficiency. By equipping TCN with advanced tools for data management and analysis, K&A is driving the creation of a more resilient and sustainable power transmission network and reaffirming its leadership in digital transformation for the energy and utilities sectors in Nigeria and across Africa. ■





DIGITAL SERVICES

KHATIB & ALAMI LEADS THE WAY IN DIGITAL SERVICES EXCELLENCE

From achieving prestigious certifications to earning top industry awards, Khatib & Alami continues to set benchmarks in digital services innovation and implementation. These milestones highlight our commitment to advancing smart solutions across diverse sectors, including urban planning, telecom, and energy and utilities.

DIGITAL SERVICES ACHIEVES ISO CERTIFICATION AND CMMI LEVEL 3 FOR DEVELOPMENT AND DATA

Khatib & Alami (K&A) Digital Services has successfully renewed its ISO 9001:2015 (Quality Management System) and ISO 27001:2022 (Information Security) certifications. As part of a broader effort to enhance operational excellence, we have also been reappraised at Level 3 of ISACA's Capability Maturity Model Integration (CMMI) for Development and achieved a new milestone—Level 3 appraisal for CMMI Data. This data appraisal positions K&A among only nine organizations globally to attain this recognition, further solidifying its leadership in data governance and process maturity. By implementing robust quality management practices and advanced security protocols, we are equipped to deliver innovative solutions with enhanced efficiency and reliability, ensuring consistent service delivery across all geographies.

This enables K&A to mitigate risks effectively, drive innovation, and deliver sustainable, efficient solutions.

K&A'S JOURNEY TOWARD OPERATIONAL EXCELLENCE BEGAN IN 2011 UNDER THE LEADERSHIP OF THE LATE MANAL ELSAYED, WHOSE VISION AND DEDICATION TO STRUCTURED SYSTEMS AND SKILLED TEAMS LAID THE FOUNDATION FOR THESE ACHIEVEMENTS.

"Achieving CMMI Level 3 for Development and Data means we have structured processes that support project success, effectively leverage organizational assets, and uphold consistent quality across all geographies," said Imad Sabonji, Senior Manager - Delivery. "This appraisal further confirms that projects are aligned with organizational and performance objectives, ensuring delivery of solutions that meet stakeholders' evolving needs."

Digital Services dedication, hard work, and collaboration of every team member in achieving high-quality and performance standards.

K&A's journey toward operational excellence began in 2011 under the leadership of the late Manal ElSayed, whose vision and dedication to structured systems and skilled teams laid the foundation for these achievements.

"She firmly believed that with the right systems, well-defined processes, and a talented team, there were no limits to what we could achieve," emphasized Imad Sabonji, Senior Manager - Delivery. "Her unwavering leadership and encouragement established the groundwork for the successes we celebrate today. Manal's passion and determination remain a source of inspiration, and this achievement is a heartfelt tribute to her enduring legacy."

A COLLABORATIVE JOURNEY TOWARD EXCELLENCE

The milestone is the culmination of an eight-month journey involving process refinement, knowledge transfer, consistent implementation across geographies, gap analysis, and preparation for rigorous audits. This collective effort reflects the

CMMI LEVEL 3 FOR DEVELOPMENT AND DATA

Amid the rise of IoT and Digital Twin technologies, the CMMI Data certification is pivotal in strengthening data governance, enhancing security frameworks, and fostering stakeholder trust.

CMMI MATURITY LEVEL 3 RATING: KEY INSIGHTS

- Organizational standards are applied and tailored to meet project and work requirements.
- Projects leverage and contribute to organizational assets.
- Focus is placed on achieving both project-specific and organizational performance objectives.
- A commitment to continuous performance improvement and delivering the highest quality products and services is maintained.

FUTURE OUTLOOK

Building on its achievements, K&A Digital Services remains focused on reaching new milestones and driving innovation for clients, partners, and communities. By continuing to apply robust quality management practices and advanced security protocols, we raise the bar in service delivery, setting ourselves apart in the global market. Our mission remains clear: to deliver transformative solutions that benefit all stakeholders. ▀

KHATIB & ALAMI ACHIEVES SCHNEIDER ELECTRIC'S SMART GRID ECOXPERT CERTIFICATION



Khatib & Alami (K&A) has reached an exciting new milestone by earning Schneider Electric's Smart Grid EcoXpert certification. This recognition reflects our dedication to delivering advanced digital solutions that empower utilities to adopt modern network management. Through the implementation and support of the EcoStruxure ArcFM Solution XI Series on Esri's ArcGIS Utility Network platform, K&A continues to drive innovation and operational excellence in the utility sector.

As utilities face challenges in transitioning to modern network management, K&A's expertise in Schneider Electric applications and next-generation technologies helps them embrace cutting-edge tools seamlessly. Leveraging these advanced solutions, K&A supports clients in optimizing network performance, increasing resiliency, and achieving sustainable growth.

This certification marks the successful completion of a rigorous training program. The program involved upskilling in the ArcFM Solution XI suite and gaining an in-depth understanding of its functionality and configuration through a dedicated learning path. It also included practical experience in project implementations, solution architecture, and configuration, equipping K&A with the expertise to deliver effectively tailored partner support to its clients.

"We are honored to be the first Schneider Electric Certified Smart Grid EcoXpert partner in the Middle East. This certification builds on our long-standing partnership with Schneider Electric and reflects our dedication to supporting utilities with innovative ArcFM implementations and digital transformation," said Walid Abou Chacra, K&A's Senior Manager of Digital Energy & Utilities.

Mohamed Misbah, Digital Services Director at K&A, emphasized: "Our goal is to deliver future-ready solutions that improve resiliency, efficiency, and sustainability. By combining Schneider Electric's digital grid technology with Esri's geospatial expertise, we're helping utilities create smarter, more efficient systems that tackle today's challenges while preparing for tomorrow."

Nader Ghabbour, Vice President of Digital Grid for the Middle East and Africa at Schneider Electric, expressed his enthusiasm for K&A's certification, stating, "Khatib & Alami has been a long-time

partner of Schneider Electric Digital Grid. This certification is an important step in helping utilities in their digital transformation journey, enabling them to deploy the latest technology to enhance operational efficiency, reliability, and grid resilience."

"WE ARE HONORED TO BE THE FIRST SCHNEIDER ELECTRIC CERTIFIED SMART GRID ECOXPERT PARTNER IN THE MIDDLE EAST."

Walid Abou Chacra, Senior Manager of Digital Energy & Utilities

Achieving the Smart Grid EcoXpert certification positions K&A as a trusted partner for utilities aiming to modernize their operations. This milestone underscores K&A's ability to deliver advanced digital solutions that enhance operational safety, reduce power losses, and support sustainable growth.

By blending Schneider Electric's cutting-edge technology with Esri's modern network management tools, K&A continues to empower utilities to meet their evolving needs with confidence and innovation.



K&A WINS BACK-TO-BACK IMPLEMENTATION PARTNER AWARD AT IMGIS 2024 FOR TELECOM GIS EXCELLENCE

Khatib & Alami (K&A) has received the Implementation Partner Award at the Esri Infrastructure Management & GIS Conference (IMGIS) 2024 for the second consecutive year. This prestigious award recognizes our exceptional achievements in the Telecom sector, further solidifying our leadership in advancing GIS technology and its applications. This back-to-back success highlights the expertise and dedication of our team in delivering cutting-edge GIS solutions that drive innovation and operational excellence in

the telecom industry. The recognition not only underscores K&A's commitment to digital transformation but also showcases our relentless pursuit of excellence in utilizing geographic information systems to solve complex challenges.



THE URBAN LANDBANK USING AERIAL SURVEY AND ARTIFICIAL INTELLIGENCE IN OMAN NAMED DIGITAL PROJECT OF THE YEAR

For the second consecutive year, Khatib & Alami's (K&A) projects in Oman have been recognized for excellence, reaffirming our leadership in innovation and digital transformation. Among these accomplishments, our groundbreaking project, the Urban Landbank Using Aerial Survey and Artificial Intelligence, earned the prestigious Digital Project of the Year award at the Construction Technology Awards 2024. This recognition highlights the project's exceptional use of advanced digital technologies, including Airborne LiDAR, Aerial Photography, and Artificial Intelligence, which enabled the accurate mapping of a vast 760 km² area in the Dhofar Governorate of Oman.

These innovations enabled the creation of a GIS landbank for



land analysis and urban planning, addressing social constraints and challenging terrain. Using Esri technology, new Deep Learning models delivered outstanding accuracy, allowing project completion in just 16 months—8 months ahead of schedule—with minimal human intervention (10 staff, 2 full-time employees) and nine days of aerial data capture.

This effort resulted in a GIS database of buildings and

fences with an impressive 10 cm accuracy, providing the Oman Ministry of Housing & Urban Planning (MoHUP) with a robust foundation for transformative applications in land planning and the creation of accurate site plans and deeds. Building on the successful integration of aerial surveys with AI, K&A is now leveraging this expertise to manage a 6,000 km² project in Oman. ■

REVOLUTIONIZING SAUDI ARABIA'S REAL ESTATE SECTOR WITH GIS: KHATIB & ALAMI'S PIONEERING ROLE

To strengthen the presence of the National Housing Company (NHC) in the real estate and municipal market and foster innovation in both sectors, the Solutions Sector was expanded in January 2025 into a new entity named "NHC Innovation." This company aims to create smart and sustainable environments, empowering small and medium enterprises through new technologies, and achieving the goals of Vision 2030.

This expansion reflects NHC's commitment to delivering innovative real estate solutions and technologies that meet the needs of a dynamic market, with a focus on digital transformation and sustainability. Despite these efforts, fragmented databases and challenges in managing spatial data have posed significant obstacles to delivering on these objectives effectively. ■



1

2

3

1. Defining the location for the heatmap (region, city and district).
2. One of the main functions is to create reports on three levels (city, district and parcel) for internal use with general or detailed info.
3. Create a heatmap for the point feature data, such as the residential or commercial contracts.

To overcome these hurdles, NHC collaborated with Khatib & Alami (K&A) to develop a unified geospatial database powered by cutting-edge GIS technologies. This partnership marked a transformative step toward digitizing real estate operations, streamlining data management, and enabling better decision-making.

TACKLING CHALLENGES WITH GIS INNOVATION

NHC faced significant challenges in managing platforms such as EJAR, Brokerage, Idle Lands, Subdivision, and Sakani. The lack of spatial data integration made it difficult to validate location accuracy and generate meaningful regional, city, and district-level reports. Moreover, fragmented databases across platforms led to data traffic bottlenecks during updates, further complicating operations.

K&A addressed these issues by developing a geospatial database built on Esri's ArcGIS Pro, ArcGIS Enterprise, and ArcGIS Dashboards. This integrated system provided tools for real-time spatial visualization, data validation, and operational analysis. Key features included a Geoportal, an interactive Web Viewer app, a Geocoder for address validation, and custom operational dashboards. Advanced geospatial AI (GeoAI) was also deployed to distinguish between the developed and vacant lands, as well as estimating the age of properties by analysing the condition of the land, providing advanced analytics for urban planning and investment.

To further enhance functionality, K&A developed Application Programming Interfaces (APIs) to integrate Saudi Post addresses, query property deeds, and analyze idle and developed lands. These innovations ensured seamless data access and streamlined real estate operations for NHC and its stakeholders.

TRANSFORMING REAL ESTATE STRATEGIES IN SAUDI ARABIA

The integration of GIS has significantly reshaped real estate strategies in Saudi Arabia. By providing real-time spatial data, GIS empowers developers, investors, and policymakers to make informed decisions about site selection, urban planning, and resource allocation. This reduces risks and optimizes investments, aligning with Vision 2030's goals of fostering economic diversification and sustainable development.

Another significant impact of the GIS solutions was their ability to optimize land utilization. GeoAI models allowed NHC to identify vacant lands and encourage the private sector to develop unused lands, creating new investment opportunities and supporting broader urban growth initiatives.

Moreover, the real estate data visualization on ArcGIS dashboards facilitated better decision-making, enabling stakeholders to assess property values, evaluate land fees, and plan accurately development projects with greater precision. These technological advancements have also led to significant cost savings and improved operational efficiency, reinforcing the role of GIS as a driver of smarter strategies and better outcomes.

LESSONS FOR THE GLOBAL REAL ESTATE INDUSTRY

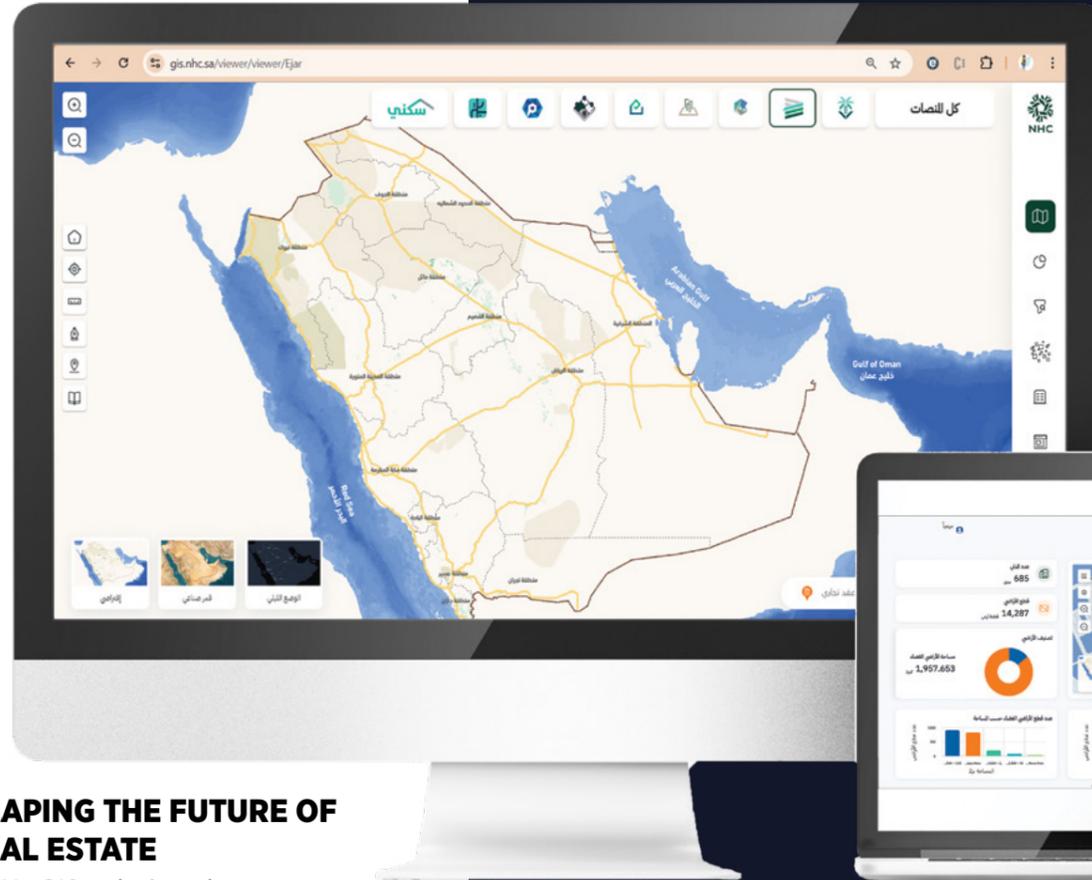
By integrating advanced GIS technologies with AI and machine learning, K&A's work with NHC demonstrated how geospatial solutions can generate actionable insights and support long-term strategic planning.

Tailoring GIS solutions to meet the unique needs of stakeholders was another key factor in the project's success. From private developers to urban planners and

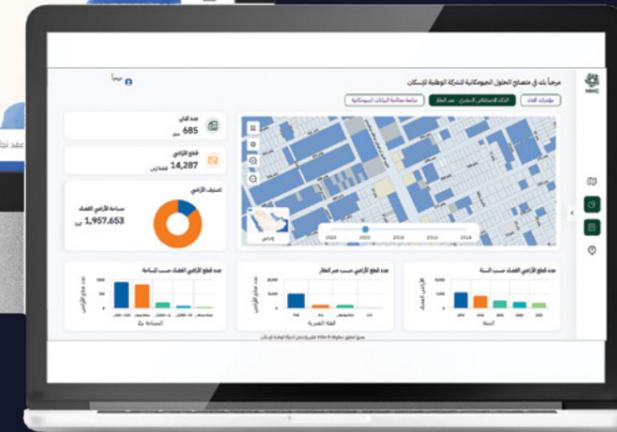
policymakers, the tools were designed to address diverse requirements, maximizing their impact.

These solutions showcase the potential of GIS to drive innovation, foster sustainable growth, and create investment opportunities, offering a blueprint for global real estate transformation.

4



5



THE INTEGRATION OF GIS HAS SIGNIFICANTLY RESHAPED REAL ESTATE STRATEGIES IN SAUDI ARABIA. BY PROVIDING REAL-TIME SPATIAL DATA, GIS EMPOWERS DEVELOPERS, INVESTORS, AND POLICYMAKERS TO MAKE INFORMED DECISIONS ABOUT SITE SELECTION, URBAN PLANNING, AND RESOURCE ALLOCATION.

SHAPING THE FUTURE OF REAL ESTATE

K&A's GIS solutions have equipped NHC with the tools to navigate the complexities of Saudi Arabia's dynamic real estate market. By unifying fragmented databases and leveraging advanced spatial technologies, K&A has transformed data into actionable insights, empowering stakeholders and driving private sector growth.

As Saudi Arabia advances toward its Vision 2030 goals, this partnership stands as a testament to the transformative power of geospatial solutions. K&A remains committed to delivering innovative strategies that not only address immediate challenges but also shape the future of urban development. ■

4. Home page of the Web Viewer App which contains all the tools and functions, in addition to sub apps (Geocoder, Dashboards, advanced search, create reports and heatmaps).

5. One of the developed Dashboards to analyze the status of the lands and building age using the GeoAI technology with satellites imagery on different years.

FROM CRISIS TO RESILIENCE: HOW K&A'S BEIRUT OFFICE THRIVED AMID ADVERSITY



Recent months have presented profound challenges, as conflict tested our resilience, adaptability, and operational capabilities. Yet, amid the adversity, Khatib & Alami (K&A) demonstrated survival and the ability to innovate, thrive, and emerge stronger.

The outbreak of war in September disrupted Lebanon's infrastructure, particularly affecting the physical access to the Beirut Design Center. In response, K&A's leadership, under CEO Dr. Najib Khatib and the Executive Office, swiftly implemented an emergency action plan focused on two key priorities: staff relocation and critical role shadowing. These strategies ensured employees' safety and the seamless continuation of operations through a smooth transition to online platforms and advanced technologies, reflecting an organizational culture rooted in disaster preparedness, strategic foresight, and commitment to excellence.

STAFF RELOCATION AND SHADOWING

Relocating 41 employees and 35 family members to safer locations—including Cairo, Doha, Riyadh, and Sharjah—was executed based on clearly defined criteria. This was done while prioritizing client satisfaction and ensuring that teams working on key projects could operate without interruption. These criteria included client requests for relocation, mobility needs for travel and in-person meetings, staff working on critical projects where shadowing was not feasible, and limited access to reliable Internet.

Simultaneously, a robust peer-shadowing system ensured continuity for employees unable to relocate. Teams from other K&A Design Centers collaborated seamlessly with Beirut staff to maintain workflow. The IT department played a critical role, providing the necessary software and

hardware to support remote work and maintain productivity.

HR Director, Fadia Ghosn emphasized: "Our employees are our most valuable asset, and their safety remains our utmost priority. These measures highlight our dedication to their well-being while ensuring we deliver excellence to clients."

K&A implemented flexible work arrangements, allowing employees to work hybrid schedules. This flexibility enabled staff to balance work and personal responsibilities, reducing stress and improving work-life balance during uncertain times. Amid the turbulence, K&A established a new temporary office in Chehim area which was considered a safer zone during the war, creating a secure environment for 65 employees. The space, equipped with advanced tools, supported effective collaboration and created a sense of normalcy.

LESSONS LEARNED FROM THE PAST

Despite the upheaval, K&A maintained uninterrupted project delivery. All deadlines were met, and client relationships remained strong. "We were not shaken," Senior Vice President of Transportation, Ramadan Harb, asserted. "Our commitment to timely delivery for clients remained steadfast, with no complaints reported." He identified the main concerns shaping our operational strategies during war: electricity, internet reliability, and access to the airport.

Reflecting on the 1982 war, Harb recalled relocating to the Burj Hammoud offices. "In the same way, our priority was to ensure that indispensable and irreplaceable staff with urgent projects could be accommodated here or abroad as soon as possible," he explained.

NAVIGATING OPERATIONAL CHALLENGES

Learning from past crises has been a key pillar of K&A's operational strategy. The organization's response to the pandemic further honed its ability to manage remote work efficiently. Daily progress reports from staff, clear communication channels, and enhanced accountability mechanisms ensured that tasks remained on track.

"Our proactive mitigation plan, supported by travel emergency protocols and resource reallocation, has kept project timelines entirely unaffected," said Khaldoun Nasreddine, Senior Director of Geotechnical & Heavy Civil and Head of Beirut Design Center - Infrastructure. "We have successfully met client expectations by prioritizing critical tasks and leveraging digital tools."

Through the use of cutting-edge digital tools and collaborative platforms, K&A ensured seamless communication and efficient project management. From regular virtual meetings to clear documentation protocols, these technologies empowered the team to sustain high productivity levels and uphold exceptional quality standards.

FORGING AHEAD

In closing, Said Dagher, Head of Beirut Design Center - Buildings, conveyed a message of trust and reassurance to clients and employees alike. Addressing clients, he affirmed: "Whatever the circumstances and obstacles, K&A remains fully committed to delivering all its obligations and duties on time." He expressed deep appreciation to employees,

stating, "We are all proud of their perseverance, determination, and discipline in achieving their tasks despite the tremendous conditions and high risks the country was going through."

As K&A navigates the path to normalcy, we remain steadfast in our mission to deliver exceptional service while prioritizing the well-being of our employees.

By embracing innovation, fostering collaboration, and staying true to our core values, we will continue to thrive with optimism and determination. ■



ADVANCED PROJECT MANAGEMENT TRAINING COURSE IN BASRA GOVERNORATE, IRAQ

In alignment with Khatib & Alami's (K&A) commitment to knowledge transfer and capacity building, a comprehensive project management training course was organized in Basra Governorate, Iraq. This three-day event, conducted as part of the Governorate's 2024 training and development plan, was led by K&A's Business Operations Director, Toni Farah. The course was designed to equip the Governorate's engineers and employees with critical project management knowledge and practical skills.

Nearly 100 professionals, including department heads and staff, participated in the training, which featured interactive sessions covering key project management areas such as time, scope, cost, quality, resource allocation, risk, communication, contract management, procurement, integration, and stakeholder management. Additionally, the course addressed vital aspects of construction project management, including planning, execution, monitoring, challenge



mitigation, negotiation, financial management, scheduling, and developing actionable plans within defined timelines.

Chadi Sabra, Manager for Basra Geography, said: "This training reflects our broader initiative to empower the technical workforce of Basra Governorate through knowledge transfer. The success of this course paves the way for future training sessions on various topics, further strengthening the collaboration between K&A and Basra Governorate."

The event concluded with certificate distribution to participants, who provided highly positive feedback on the

program. Plans are already underway for additional training sessions tailored to the specific needs of the Governorate's departments, ensuring this initiative continues to enhance the skills of professionals and benefits the wider community.

"By the end of the training, participants gained the tools and expertise to manage projects effectively from initiation to completion, achieving efficiency, quality outcomes, and client satisfaction," added Toni Farah. "We look forward to offering further training programs that address the evolving needs of Basra's Governorate departments and drive continued progress." ■

SUCCESSFUL CLOSEOUT WORKSHOP FOR PHASE 2 OF BAHRAIN'S POTABLE WATER PRODUCTION AND TRANSMISSION MASTER PLAN



Khatib & Alami (K&A) has successfully concluded the closeout workshop for Phase 2 of Bahrain's Potable Water Production and Transmission Master Plan, a project undertaken in collaboration with the Kingdom's Electricity and Water Authority (EWA). This milestone marked a pivotal point in the project, with EWA

representatives reviewing, discussing, and ensuring alignment and clarity as the project progresses.

The closeout workshop of Phase 2 featured five sessions where K&A's experts presented insights on existing production facilities, transmission pipelines, and water stations, analyzed future water demands at the service area level, discussed hydraulic modeling, and assessed shortlisted production alternatives. The interactive discussions also addressed EWA representatives' queries and feedback, fostering a collaborative approach to achieving project objectives.

This full-day workshop is the second major session in the project and follows EWA's successful completion and approval of Phase 1. With the closeout of Phase 2, K&A is now preparing to advance into the final stages of the project, guided by the insights and recommendations discussed during both phases.

By leveraging K&A's expertise, the master plan establishes a strong foundation for driving Bahrain's long-term vision of sustainable and efficient water resource management, addressing the Kingdom's growing need for a resilient and reliable potable water supply. ■

GIS DAY OMAN: CELEBRATING INNOVATION AND PARTNERSHIP IN GEOSPATIAL TECHNOLOGY

Khatib & Alami (K&A) proudly participated in GIS Day, an event organized by Nama Electricity Distribution Company (NEDC) in Oman. This gathering served as a dynamic platform for industry leaders, innovators, and stakeholders to exchange insights and celebrate their achievements in Geographic Information System (GIS).

During the event, Ayoub Chebli, K&A's Energy & Utilities Consultant, delivered an impactful presentation on the transformative role of GIS in advancing smart grid solutions. He demonstrated how K&A's cutting-edge GIS Smart Solutions enable utility companies to seamlessly transition to digital and smart utilities, enhancing operational efficiency and service delivery.

The presentation featured advanced technologies,

including Artificial Intelligence, Digital Twin Technology, and Gaming Engine Simulations, which provided immersive, interactive solutions to visualize and optimize complex systems. These innovations underscore K&A's dedication to integrating geospatial technologies with next-generation tools to support utility companies in achieving sustainability, efficiency, and exceptional customer value.

GIS Day Oman celebrated the immense potential of geospatial technologies in shaping a smarter, more connected future. By emphasizing the integration of GIS with transformative digital solutions, the event reinforced K&A's role as a trusted partner in Oman's journey toward digital transformation. ■



STRENGTHENING LEBANON'S DISASTER RESILIENCE: ESRI LEBANON'S IMPACT

Esri Lebanon, a subsidiary of Khatib & Alami (K&A), has played a transformative role in leveraging geospatial technologies to enhance disaster preparedness and crisis management in Lebanon over the years.

Fragmented data collection and inefficient response systems have posed significant challenges during national emergencies. In response to the 2024 war, Esri Lebanon supported the National Committee for Disaster and Crisis Management Coordination in Lebanon to deploy advanced geospatial tools that improved data centralization, coordination, and crisis response. These efforts have helped overcome challenges by providing reliable, real-time data and empowering key entities, including Disaster

Risk Management, the Lebanese Red Cross, the United Nations Development Programme, and the National Council for Scientific Research. They have also strengthened the response

capabilities of governmental authorities such as the Ministry of Higher Education, the Ministry of Social Affairs, and the Ministry of Public Health.

Using the ArcGIS platform, Esri Lebanon developed dashboards to track Internally Displaced Persons (IDPs) in shelters, monitor their needs, and optimize resource allocation. These dashboards and a centralized database enhanced data-sharing systems, enabling all stakeholders to make informed decisions.

Esri Lebanon's ongoing collaboration has made a life-critical impact during major crises, including the COVID-19 pandemic, the Beirut blast, and the 2024 war. These initiatives highlight the crucial role of geospatial tools in strengthening disaster resilience and response across Lebanon. ■



KHATIB & ALAMI AND QATAR UNIVERSITY CELEBRATE PRESTIGIOUS ENR AWARD



Khatib & Alami (K&A) proudly joined Qatar University in celebrating a remarkable achievement as the new College of Law received the prestigious Award of Merit from the globally acclaimed Engineering News-Record (ENR).

The celebration, which was held at Qatar University, gathered esteemed guests, including President Dr. Omar Al Ansari, faculty members, and representatives from K&A, and Bojamhoor Trading & Contracting Company, the project's contractor. The award ceremony highlighted the strong collaboration and shared vision that made this architectural milestone possible,



merging Qatari heritage with global standards in educational facility design.

Dr. Talal Al-Emadi, Dean of the College of Law, highlighted the award's importance, noting that it reflects the university's dedication to creating sustainable and innovative spaces that elevate legal education. Alex Hanna, Vice President of K&A Qatar, emphasized that this accolade in the Education/Research category reaffirms K&A's commitment to designing environments that inspire academic excellence and foster learning.

Spanning a 52,000 m² site in the northwest of Qatar University's campus, the College of Law merges traditional courthouse elements with contemporary architectural aesthetics. The facility accommodates approximately 2,500 students and features state-of-the-art classrooms, a 200-seat lecture hall, a 362-seat conference hall, and a mock courtroom to enhance practical training. The project's adherence to international standards is evidenced by its four-star rating under the Global Sustainability Assessment System (GSAS) for design and construction.



This recognition represents a significant achievement for Qatar University, further cementing its position as a leader in educational excellence. Notably, this is the second ENR award the university has earned in the Education/Research category, following the 2021 accolade for the New College of Education, another standout project by K&A.

K&A remains dedicated to shaping transformative educational landscapes that inspire and empower future generations. This shared commitment continues to set new benchmarks for excellence, driving progress and innovation in Qatar and beyond. ■

OMAN MINISTRY OF HOUSING & URBAN PLANNING WINS PRESTIGIOUS SAG AWARD FOR INNOVATIVE GIS PROJECT

The Oman Ministry of Housing & Urban Planning (MoHUP) has been awarded the prestigious Special Achievement in GIS (SAG) Award at the Esri User Conference 2024 in San Diego. This accolade honors the groundbreaking project, "Urban Landbank Using Aerial Survey and Artificial Intelligence," where K&A's advanced geospatial technology has revolutionized urban planning and housing development across the Sultanate of Oman.

Our team utilized airborne LiDAR, Aerial Photography, and Artificial Intelligence to map 760 km² area and build a GIS basemap with 10 cm accuracy in the Dhofar Governorate. The outcome of this project was considered accurate, resulting in an up-to-date basemap for master and urban planning initiatives.

"As consultants for this strategic initiative, we are proud to see our collaboration with the Oman Ministry of Housing & Urban Planning acknowledged by the leading geospatial provider, Esri.

By harnessing cutting-edge GIS technology, the Ministry is not only making a feat in driving sustainable growth but also significantly improving the quality of life across the country," said Faisal Alami, K&A Partner and Executive Vice President.

The SAG Award celebrated MoHUP's innovative approach and leadership in geospatial technology, setting a benchmark for organizations globally. Their pioneering work demonstrates the transformative potential of geospatial intelligence in tackling complex urban challenges and building smarter, more resilient communities.

"Congratulations to the entire team at the Oman Ministry of Housing & Urban Planning on this well-deserved recognition, and to everyone involved in making this landmark project a reality." ■



KHATIB & ALAMI AT SAUDI RAIL 2024: ADVANCING THE FUTURE OF RAIL AND MOBILITY



Khatib & Alami participated in Saudi Rail 2024, a premier industry event that brought together key stakeholders, decision-makers, and innovators to explore the future of rail and mobility in the region.

As part of our commitment to shaping smarter, more sustainable transportation networks, our team engaged in insightful discussions on the latest advancements in rail technology, digital transformation, and

infrastructure development. The visitors at the booth had the opportunity to explore our cutting-edge rail solutions, designed to enhance efficiency, connectivity, and sustainability.

The event also provided a valuable platform for collaboration, allowing us to exchange ideas with industry leaders and contribute to conversations on the evolving landscape of railway systems in Saudi Arabia and beyond. ■

WE ARE INSPIRED BY OUR VISION OF A THRIVING FUTURE FOR OUR COMMUNITIES AND CONFIDENT IN OUR ABILITY TO DELIVER INNOVATIVE SOLUTIONS TO ACHIEVE THIS GOAL.

ARCHITECTURE & PLANNING

- Buildings**
- Residential
 - Commercial
 - Hospitality
 - Retail
 - Healthcare
 - Educational
 - Special Facilities
 - Sports & Recreation

- City & Regional Planning**
- Urban Planning & Design
 - Sectorial & Regional Planning
 - Landscape Architecture

Interior Design & FF&E

- ENERGY**
- Power & Renewables
 - Oil & Gas

INFRASTRUCTURE

- Transportation**
- Roads & Highways
 - Airports
 - Rail & Mass Transit
 - Bridges
 - Ports
 - Transport Planning & Traffic Engineering

- Water & Environment**
- Water Resources & Stormwater Drainage
 - Water Treatment
 - Urban Hydraulic
 - Dams & Hydraulic Structures
 - Environmental Studies & Waste Management

- Geotechnical & Heavy Civil**
- Foundations & Earthworks
 - Heavy Civil Engineering

PROGRAM MANAGEMENT SERVICES

- Program Management
- Consultancy
- Sustainability

DIGITAL SERVICES

- Geospatial Systems Integration
- Energy & Utilities

ENGINEERING SERVICES



For more information on anything you've read in **Inside K&A** or to connect with one of our experts, please email us at marketing@khatibalami.com

